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THREE THOUSAND MILES
THROUGH BRAZIL.

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EXPLORING AND TRAVELLING

THREE THOUSAND MILES THROUGH BRAZIL

FROM RIO DE JANEIRO TO MARANHÃO

WITH AN APPENDIX CONTAINING STATISTICS AND OBSERVATIONS ON
CLIMATE, RAILWAYS, CENTRAL SUGAR FACTORIES, MINING, COM-
MERCE, AND FINANCE ; THE PAST, PRESENT, AND FUTURE,
AND PHYSICAL GEOGRAPHY OF BRAZIL.

BY

JAMES W. WELLS,

M. INST. C.E., F.R.G.S.

*ILLUSTRATED WITH NUMEROUS REPRODUCTIONS OF THE AUTHOR'S
SKETCHES, AND ORIGINAL MAPS AND SECTIONS.*

IN TWO VOLUMES

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1886

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THIS BOOK IS DEDICATED

TO

THE MOST HON. THE MARQUIS OF LORNE, K.T., G.C.M.G.,

President of the Royal Geographical Society,

AS

A Modest Tribute

TO THE SYMPATHETIC INTEREST TAKEN BY HIS LORDSHIP

IN ALL EFFORTS THAT TEND TO A

BETTER KNOWLEDGE OF DISTANT AND LITTLE KNOWN LANDS,

AND ALSO

TO THE KINDNESS AND CONSIDERATION

RECEIVED BY THE AUTHOR

WHEN SUBMITTING HIS BRAZILIAN EXPERIENCES TO THE

ROYAL GEOGRAPHICAL SOCIETY.

PREFACE.

WHEN a very young man, the fates decreed that I should leave the old country, and, like many another son of Britain, go out into the wide world in quest partly of adventure, partly of better opportunities than the crowded ranks of home seemed to offer. A mistaken idea, maybe ; but I was then so imbued, through all that I had read of Brazil, with the glamour of romantic imaginings of its wondrous tropical life, that finally I selected this field for the scene of what is the duty of every man—to try to hew out for himself a path to success. Consequently, some seventeen years ago found me throwing up London engagements, and with only the knowledge of my profession to depend upon, but heaps of sanguine anticipations, landing friendless and ignorant of the language in the country that has since been so kind to me. During these many years the exercise of my profession has carried me over a very considerable section of the interior of this vast land, necessitated a residence in all the chief coast cities north of Rio de Janeiro, and brought me into intimate relations with all phases of life in Brazil. Such an exceptional experience must largely endow any individual (unless his perceptive faculties are dormant) with a fund of knowledge of this great empire—a land of which less is generally known than of Africa. This being so, I have considered it incumbent on me to endeavour to impart, as well as my capacities will permit, the result of my experiences. I had intended to write a work dealing more generally with the country, and in a more abstract form ; but the subject is so vast, and there exist so many opposite deviations from any hard and fast line that I might draw of

the character of the country and its people, that the result of even several volumes of such an effort must necessarily be misleading and unsatisfactory. Consequently, I have adopted the course of endeavouring to depict the aspect of a given line of country with its many varying scenes and differences of climate, the incidents of "roughing it" in the backwoods, and the many "sorts and conditions" of humanity met with on the way. The sketch, however, if almost wholly confined to the stagnant and decadent interior (a great region truly, and containing a great population, but one widely scattered over its vast area, far from markets, and with its only communications almost prohibitively costly, so that the mass of the people simply vegetate as the trees around them), would create an erroneous general impression of Brazil; and I have therefore included in the form of an appendix a few matters relating to the busy life and progress of the coast regions, where Brazilians and foreigners are making Brazil take the place it should amongst the great nations of the earth.

In offering this work I must crave the kind reader's indulgence for the many defects of a first literary effort, one written, too, under considerable difficulties; for although during the journey from Rio de Janeiro to Maranhão, I kept a record of each day's proceedings and incidents, it was not done with the view of utilizing it for publication, and the greater part of the sketches I made on the way, and all the store of notes I collected of things interesting and curious were lost by accidents in travelling. In consequence of these misfortunes the work is hardly so complete as I could wish, or as it might have been. I must also observe that it is now about eleven years since the travels recorded in this work were terminated, constant professional occupation having prevented me devoting at an earlier period the time necessary for the compilation of such a book as this. But in one sense the delay has been advantageous, for it has enabled me to write with the more matured judgment and more varied experience gained by an acquaintance with other sections of Brazil, and other phases of Brazilian life; while, although the actual period of the travels here depicted is fast waning into the "long ago,"

I have no hesitation whatever in now submitting this work, as the scenes and incidents described are just as applicable to the present time as if the journey had been finished last year, for in the distant *interior* the march of progress is so slow that practically no difference is perceptible in the course of a dozen years. Indeed, wherever I intersected or followed the routes of Mr. Gardner or of Captain Burton, I found no noticeable change in the various localities as described by these authors, from what existed on my visit so many years after them. My purpose throughout the book has been to convey an unbiassed delineation of the subjects I have dealt with ; to write neither as an optimist nor as a pessimist ; and to relate truthfully and without exaggeration, not a specialist's researches and discoveries, but an engineer's matter-of-fact experiences amidst the healthy highlands of Minas Geraes, the pestiferous swamps of the valley of the Rio São Francisco, the bright, breezy uplands of Goyaz, on the long reaches of the Rio Tocantins on the sandy highlands of Maranhão, and amidst the grandly beautiful but torturing-insect-infested forests of the Rio Grajahu ; a life passed in farms, in huts, under canvas, or with only the bright star-lit skies for a roof ; riding, or tramping footsore under a burning sun ; boating, canoeing, or rafting on many waters ; and finally meeting good, bad, and indifferent natives, from nature's gentlemen under the roughest guise to the most fearful of scoundrels—men, some bright and energetic, others most pitiably indolent and steeped in the dregs of the lowest moral degradation.

The map that accompanies the work is based, as far as concerns my route, upon my own topographical notes taken during the journey, but the distant surrounding country I have sketched in from information gleaned from every source that bears upon the subject. By comparing it with any map of Brazil it will be seen that it differs immensely in many of its salient features, especially the delineation of the watershed of the São Francisco Tocantins, that hitherto has been invariably represented as a mountain range instead of a wide, gently-undulating tableland, generally rising by imperceptible gradients from the east, and facing the west in precipitatory

bluffs. At best this map (like any other of Brazil) is only what it is designated, a sketch map ; but crude as it is, it is an effort to correct what I personally know to be many grave errors in the best of existing maps.

I am sadly afraid that I shall incur a certain amount of animadversion for committing the common traveller's sin of perhaps enlarging too much on insects, pests, and what I had for my dinner, or on when I didn't get any dinner ; but really, if the declaimers, who sit at home at ease, would only take a run through Brazil, they would find that these objectionable trifles constituted such important items in their experiences, that the memory of them would blot out much of really intrinsic interest ; and as my main object is to depict the experiences and life in the woods, the campos, and marshes, of a traveller in his daily pleasures and vicissitudes, in as realistic a manner as possible to such readers as have not had the fortune or misfortune to travel in Brazil, I can hardly, even at the risk of incurring a charge of being tedious over trifles, omit such important details in the picture.

The chief fauna and flora of Brazil have been so often and so fully described by the many naturalists and botanists who have travelled in the country, that what a certain well-known author calls a "twenty years in the country, speak the language sort of man," should not touch upon such subjects, except where he may be able, in describing what is already known, to add further knowledge of the range, or habitat, of some of the most striking subjects ; and I have therefore only touched on these occasionally and with brevity.

OLINDA,
BECKENHAM,
KENT.

May 31st, 1886.

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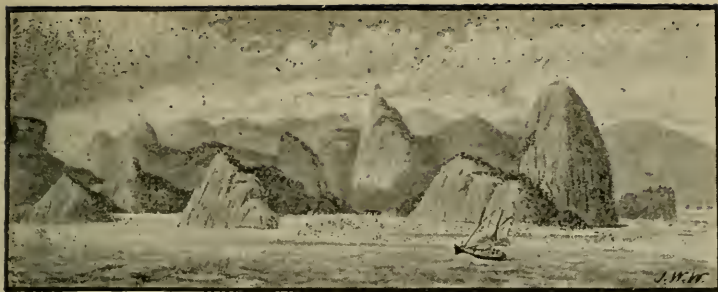
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The Entrance to the Harbour of Rio de Janeiro.

THREE THOUSAND MILES THROUGH BRAZIL.

CHAPTER I.

RIO DE JANEIRO.

The voyage from Southampton—The beautiful scenery of the entrance to Rio and its harbour—Arrival at Rio—The landing—The streets and their frequenters—The hotels : great want of a really good one—The peaks of Tijuca and Corcovado—Picturesque Larangeiras—The Wapping of Rio—The maritime station of the D. Pedro II. railway—The Botanical Gardens—Chief buildings—The fine arts ; national love of music—A stroll through the streets ; novelties that strike a visitor—Yellow fever much exaggerated—The police—The Capoeiros—The houses and the people—Homes of the upper classes and of our countrymen—Public amusements.

SINCE the occurrence of the events and incidents recorded in the following chapters of this work, many great and considerable changes have taken place in Rio de Janeiro, and although much has been said and written of late years by various authors of works on Brazil, of the loyal and patriotic city of São Sebastião de Rio Janeiro, as the Fluminenses¹ delight to style it, it is only right that the reader should have

¹ A term used to designate an inhabitant of Rio de Janeiro.

a glance at its present state, its beautiful suburbs with their picturesque, if gaudy châteaux, their exquisite gardens, and the many other evidences of the centralized wealth and luxury of the capital of this vast country (second in area only to the Russian Empire), and see, at least, its phase of life, and movement, and business, before he reads of the dull, sleepy, decayed towns and villages, and grimy abodes of the interior.

Let us imagine ourselves aboard one of the steamships of any one of the several companies trading with Brazil, say of the Royal Mail Steam Packet Company, either the *La Plata*, *Tagus*, *Elbe*, *Neva*, *Trent*, *Tamar*, all really floating hotels, where, if there is not the luxury of the appointments and the area of the vast steamers of the North Atlantic, yet there is sufficient of both to enable a passenger to thoroughly enjoy the usually calm and peaceful voyage of twenty days from Southampton to Rio.

A sea voyage has been so often described that it need not be here enlarged upon; suffice to say that we stopped at picturesque Vigo and at quaint, quiet old Lisbon, where the traveller, if the time permits, should not fail to visit lovely Cintra and its castle: there one can wander amidst the groves of huge rhododendrons and camellias of the gardens, climb the winding passages and tall towers of the structure built upon the topmost pinnacles of a lofty hill, (all so suggestive of an enchanted castle in the quaintness, position, and solitude,) and from the roof of its tallest turret he can gaze upon the ruins of an old, old Moorish fortress upon a neighbouring peak, upon the wonderful gardens, the far-spreading landscape, and the deep-blue sea beyond, the turbid Tagus and its yellow hills dotted with quaint houses and quainter windmills, a scene novel in sight and surroundings.

We have stopped at arid St. Vincent, where the air is

so clear that we see everything as though we are looking through concave glasses; the sea is also as extraordinarily transparent as the atmosphere. The bare volcanic hills, devoid of a blade of grass, or bush, or trees, look flat, and as though painted on canvas, and the perspective is hard to realize. It is a weird scene of grim desolation.

We next stopped at flat, breezy Pernambuco; then hilly Bahia, the paradise of negroes; and finally, after a most enjoyable voyage, during which the time has passed away as in a dream, we are awakened one morning, as usual, by the noises of the eternal swabbing and scrubbing that always herald the approach of another day, and find ourselves in sight of the grand scenery of the mountainous coast of Rio.

No matter how many times a traveller may approach this shore, it will always impress and delight him; it is ever changing, always different, for from varied points of view the rocky mountains assume different forms; or they may be distorted in appearance by the clouds of mist that envelop or hide them in the early mornings; or they may be bare and bright, and glimmer in the fierce light of day; or become rosy and tinted with manifold colours with the rays of the setting sun. We will hurry up on deck, through the carpetless saloon, wet and damp with the morning's scrub, past the ever-scrubbing stewards, of whom we pityingly inquire if they never rest, but scrub, scrub, all through the long night? "Aye! aye! sir," one replies, "the scrubbing-brush and swab is the trade-mark of this 'ere company: I'd like to give some of them directors a turn at it."

On deck, the pale grey light of dawn shows us a study in neutral tints. Shorewards, we perceive huge indefinable dark shadowy masses, clouds and hills all mingled together; the sky is a soft pearly tint, the long rolling waves are black in their

hollows and flecked with flushes of pale grey as the summits catch the rays of dawning light. Under the shadow of the awning are queer-looking figures of male passengers in the dishabille of dressing-gowns and pyjamas, each one up early for a glimpse of the famous morning glories of the coast. The noisy steam-winch is making their abominable rattle-rattle, swinging up the piles of luggage. (Why will the company not use the pleasant noiseless friction-winch of the French steamers?) Seamen hurry to and fro making preparations for arrival in port or for washing the deck. "By your leave, sir," and we hurry away on to seats or another part of the deck. "By your leave, sir," again salutes us as a huge portmanteau is nearly deposited on our toes in the semi-obscurity. "By your leave, sir," as we are nearly run over by the men hurrying along with the log. Happy thought, we will go on to the unused bridge amidships.

The minutes pass slowly as we move onwards with long and gentle pitching over the Atlantic rollers, and as the light increases, bare-peaked mountains appear here and there above the masses of wool-like clouds; when the sun peeps above the horizon its golden rays light up a scene of indescribable grandeur, the clouds commence to rise, and roll up the bare brown or grey hills, exposing to view a great variety of shapes and forms and colours. As we steam on, the scene continually changes, a perfect kaleidoscope of scenery; and, finally, the climax of the scene—the scene—comes into view, the entrance to the Port of Rio. It appears a perfect maze of hill-tops and wild, irregular forms mingled with white sea-mist; hills appear piled upon hills, the higher summits yet swathed in lingering clouds; there are outlines of giants, flat-topped mountains with perpendicular sides, high conical hills, saddle-back hills, sugar-loaves, &c.; there are grand precipitous slopes of dark granitic-gneiss, tinged with lichens

and mosses, and seamed with crevices, or mountains clothed in the dark-green verdure of forest. The scene is grand in form and rich in colour, a veritable dream of wonderland, a subject that a Turner would delight in, and well worth a voyage (and especially a pleasant one) from England, to see. Many writers have drawn comparisons between it and some of the most celebrated coast-scenes of the world, but all unanimously agree in giving the palm to Rio.

With apologies to the authors of two works, "Brazil and the Brazilians," by Messrs. Fletcher and Kidder, and "Travels in Brazil," by Prince Adalbert of Prussia, I quote the following extracts from their books, that will serve to confirm my observations.²

² "Brazil and the Brazilians." By the Rev. James C. Fletcher and the Rev. D. P. Kidder :—

"The Bay of Naples, the Golden Horn of Constantinople, and the Bay of Rio de Janeiro, are always mentioned by the travelled tourist as pre-eminently worthy to be classed together for their extent, and for the beauty and sublimity of their scenery. The first two, however, must yield the palm to the last-named magnificent sheet of water, which, in a climate of perpetual summer, is enclosed within the ranges of singularly picturesque mountains, and is dotted with the verdure-covered islands of the tropics. He who, in Switzerland, has gazed from the Quai of Vevay, or from the windows of the old Castle of Chillon, upon the grand panorama of the upper end of the Lake of Geneva, can have an idea of the general view of the Bay of Rio de Janeiro ; and there was much truth and beauty in the remark of the Swiss, who, looking for the first time on the native splendour of the Brazilian bay and its circlet of mountains, exclaimed, ' C'est l'Helvétie Méridionale ! ' (It is the Southern Switzerland !)"—Pages 13 and 14.

"The first entrance of any one to the Bay of Rio de Janeiro forms an era in his existence.

" ' An hour,
Whence he may date thenceforward and for ever.' "

Even the dullest observer must afterward cherish sublime views of the manifold beauty and majesty of the Works of the Creator."—Page 15.

"I have again and again entered and quitted the Bay of Rio de Janeiro—it has always presented to me new glories and new charms. It has been my privilege to look upon some of the most celebrated scenes of

We now steam on, taking long plunges and rolls as we pass by Fort Santa Cruz on our right, and leave the long Atlantic swell for the wavelets of the bay. The Union Jack is dipped and the faded green and yellow colours of the weather-worn Brazilian flag (suggestive of a second-hand dish-cloth) on the flag-staff of the fort duly responds.³

Here is the actual entrance to the noble bay, between Santa Cruz and the scarped rock, 1600 feet high, on the left, known as Pão d'Assucar, the distance between them being barely one and a half miles. Right ahead is the broad expanse of the bay, a sheet of glimmering light, dotted with vessels, and many extremely picturesque islands, and beyond them, thirty miles away, is the blue outline of the lofty Serra dos Orgãos, clothed with forest to its very ridge. Immediately on the left as we enter the

both hemispheres, but I have never found one which combined so much to be admired as the panorama which we have attempted to describe."—Page 19.

"Travels of his Royal Highness Prince Adalbert of Prussia in Brazil :"—

"Nevertheless, it seemed not to require this feature, for the general impression of all we had seen this day, of the nearer environs of the bay, was so overpowering, that nothing was left for the most vivid imagination to supply. Never had any view impressed me so forcibly: even the aspect of Naples—imposing and animated Naples, with Vesuvius and her magnificent bay—sinks in the comparison; even the oriental splendour of Constantinople, where white cupolas and slender minarets rise proudly on the charming hills, where cypress-groves overshadow the graves of the Moslim, and the blue belt of the Bosphorus, skirted by serais, hissars, and innumerable little hamlets, animating the whole scene, winds beautifully between Asia and Europe. Even Constantinople did not transport me so much as the first view of Rio de Janeiro. Neither Naples, nor Stamboul, nor any other spot I have seen on earth—not even the Alhambra—can compare with the strange and magic charm of the entrance to this bay. Wonders revealed themselves to our sight, the existence of which we had never imagined; and it was clear now why the first discoverers of this land gave it the name of the New World."—Vol. i. page 219.

³ When new, the Brazilian flag is bright and gorgeous with vivid green and gold, but a little exposure to weather soon turns the brilliant colours to dingy greenish-brown.

bay is the narrow entrance to the beautiful Bay of Botafogo, surrounded by sea-walls, villas, palm-trees, and bright gardens, and backed by the lofty Corcovado mountain, 2600 feet high, whose seaward face rises almost perpendicularly from its base; half-way up its city side, and all the way up to its summit from inland, it is clothed with forest. Its seafront and its summit consist of bare brownish-grey gneiss rock. A little further on up the bay, beyond the Bay of Botafogo, the shore forms long sweeping curves and jutting promontories, the former all lined with sea-walls. Along the shore, and extending up the many hills, and embosomed amidst the bright, glittering foliage of tropical vegetation of the higher lands at the rear, is a vast accumulation of churches with steeples or minaret-like towers, old and extensive convents, huge lofty buildings and balconied houses of all imaginable colours—white, pink, blue, buff, and yellow, with red-tiled roofs, yet not a half, or even a quarter of the city is visible, for it extends far out of sight away beyond Botafogo Bay to the Botanical Gardens; up the long valley of the Larangerias; away to the N.W. out to São Christovão, Saúde, Gambôa, Cajú, and the great mass of the city is behind yon Morro do Castello. On our right lies the city of Nictheroy (the capital of the Province of Rio de Janeiro) with its long lines of bright-looking houses, and its lovely Bay of Jurujúba, all with their backgrounds of lofty, grassy, and wooded hills. Wherever we look on shore we see bright colours and glistening flowers and foliage; wherever a house is detached it is surrounded by trees and palms, and gaudy-hued plants, and conspicuous amidst the latter are the gorgeous crimson bracts of huge poinsettias. Craft of all kinds stud the surface of the bay, Brazilian ironclads and wooden corvettes, foreign cruisers and ocean steamers, English, American, French, Italian, German, Spanish, Austrian, Portuguese, Belgian, Dutch, sailing-vessels

of all nationalities, and steam-tugs and noisy steam-launches innumerable, make the hill-sides echo and re-echo with their fussy, self-important clatter. Large flat-bottomed steam-ferries cross to and from, Rio and Nictheroy, and the many small coasting steamers and curious native sail-boats, canoes, and row-boats, all show the new arrival that he is not only in a new world, but near an important commercial centre.



View from the city, of the entrance to the harbour, and of the Sugar-Loaf Hill.



The sudden report of the ship's signal-gun startles us, followed by the clang-clang of that never-ceasing bell for meals, now the first bell for breakfast, for with the excitement of arrival the time has gone quicker than we imagined.

As the sun ascends in the heavens, the soft shades and shadows of morning begin to disappear, and a fierce hard glare becomes perceptible, everything looks bright and clear, outlines and details of distant objects are all minutely and strongly defined; colour is everywhere, bright hard colour; where no softening shade relieves the tone of the picture. Wherever there is a shadow it contrasts with the light almost as black and white. It is already warm, especially if there is no breeze,⁴ as is

⁴ In the months of May to August, the mornings are always cool, and often very chilly.

usually the case at this time,⁵ and we begin to feel the change from the breezes of the open ocean to the closer atmosphere of this land-locked bay, and to become uncomfortably red and hot.

Steam-launches now come alongside with the port officials, amongst whom is the usually polite *guarda-mor* of the custom-house, in blue cloth uniform, gorgeous with gilt buttons, gold braid, and oak leaves. A fleet of row-boats and steam-launches are waiting a little way off, bringing friends of the passengers. Many handkerchiefs are waving, and greetings pass between the friends in the boats and those on the ship.

On board, the steam-winch continues its baneful clatter, and piles the deck with luggage. The Portuguese third-class passengers—who all the voyage sleep and eat, and apparently never wash, ever wearing their oldest garments, so very redolent of old clothes—now startle one with their appearance: the men appearing in evidently long-treasured black coats all creases, and marvellously gaudy linen; but the women, oh! such hats, such bonnets, such forms and colours, yet somehow the vivid and often painful combinations of colours do not offend one's eye so much as they would in a duller climate. Here there are bright colours everywhere, and the dullest material, or colour, itself assumes a brilliancy by borrowing a reflected light from a brighter neighbour.

Soon the fleet of launches and boats come alongside, the agent and the friends of passengers come aboard; hearty hand-shakes with the English, hysterical embraces between the Portuguese and Brazilians. A chosen few follow the captain to the sacred precincts of his cabin, news and friends are discussed, and care is taken to prevent it being a dry subject. New arrivals are anxious to get ashore, old stagers prefer to remain for a last breakfast on board, well knowing it is better than we shall find on land. Later on, we embark

⁵ In the hot months of December to March.

in a steam-launch ; our baggage is already in a large barge bound for the custom-house. We steam away through a fleet of ships of all nations for a quarter of an hour, and land at a solid stone quay, amidst a crowd of boats, and black and white labourers, and loafers, and proceed up a paved street towards the Rua Direita.

To the new arrival the whole scene is a bewildering novelty ; strange sights, sounds, and smells meet him on all sides. We get into the Rua Direita, with its rows of stores,



The landing-place at Rio, with view of Candelaria Cathedral and the Corcovado Hill in the distance.

and dingy, balconied houses, hardly two alike ; here is confusion indeed, rows of tramcars are blocked, whilst a bullock-waggon is discharging its load at some store ; the tram-drivers appeal to the carter to move his waggon, the passengers fume, or get out and walk on, the carman stops his work, looks sardonically at the tram-drivers, and inwardly gloats over his opportunity to make trouble ; a row ensues, Brazilian Billingsgate is freely applied on both sides ; in the meantime the waggon still stops and more trams arrive ; no active policeman

appears to say, "Move on!" for it is a country of liberty, and the free and independent carman takes his own good time.

Let us look at the passengers in the cars, and the people passing us on the pavement. Here are, no matter how hot the day, Brazilian gentlemen in "chimney-pots," black frock-coats, and tall white collars, white trousers, black, well-opened vests, duly ornamented with elaborate gold watch-chains, and immaculate boots cover their usually dainty feet; their figures are thin and fragile-looking as a rule, and their complexions are often decidedly "biliary." The foreigners, one distinguishes by their more free-and-easy costume and healthier appearance; there may be also a fat buxom Mina negress, with broad burly bare shoulders, glistening like polished ebony, or rather dark walnut; a turban covers her round jovial head, an embroidered chemise her ample bust; bare are her massive arms, and voluminous is the balloon-like skirt of striped cotton; a shawl carelessly thrown over one shoulder gives her withal a picturesque appearance. Now pass us brokers of all nationalities, the only people to be seen in a hurry; merchants, clerks, or tradesmen form chatting groups on and block the narrow side-walk, labourers on foot, or wheeling hand-carts, pass onwards with their loads, or loaf about waiting for a job. Tilbury cabs rattle by or add to the tail of blocked vehicles. As yet we meet no ladies.

A little further on, after passing by the rows of open doors of the wholesale stores, banks, and various offices, are a few shops, exchange dealers, chemists, jewellers, and luncheon-rooms; at the sight of the latter, some of our party realize how hot and dry it is, and how thirsty one can become in a hot climate, early in the morning; so, English-like, some of us are sure to enter and mitigate the constitutional and national thirst. In this street two new buildings of con-

siderable size, the Post Office and Exchange, attract our attention by their incongruous appearance.

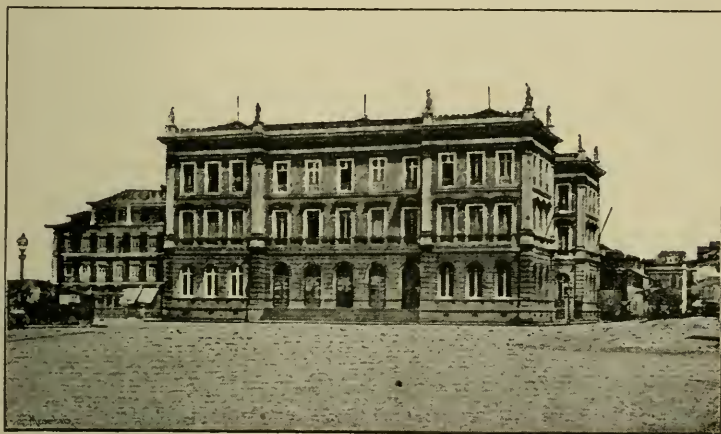
The fantastic architecture of the former belongs to the order of "bride-cake." It is a mixture of granite and rubble, stucco and colour-wash: go the world over, never shall we see the like again. Piles of money it cost, yet new as it is, it is cracked from top to bottom, owing to want of care in building the foundations in a treacherous soil.

At one of its entrances is a guard of soldiers with a lieutenant seated on a chair; of course he is smoking a cigarette. The sentinel, a black, or a brown, or a whitey-brown fellow—clad in coarse dark-blue cloth or brown holland uniform, and a black shako stuck over one side of his wool—is a type of limpness, there is nothing smart, or upright, or soldier-like, about him; he puts the stock of his rifle, with fixed bayonet, on his shoulder, and hangs on to it with both hands; his legs are limp, his back is limp, his head hangs limply, he leans up against any corner, his rifle sticks out horizontally, and passers-by have to take care of that bayonet-point, or the lazy, yawning fellow may perhaps swing it into their eyes. The two back buttons of his tunic are often above instead of below his waist-belt, and the button of his bayonet-sheath is invariably above the buckle that is intended to secure it in the slot made for the purpose, but which is never so used. The sight would send a British sergeant into fits.

The other building, the new Exchange, is certainly a more ambitious attempt at architecture, yet it is but a medley. The ground-floor walls are of massive dressed granite, admirably worked; the cornice above is a wonder of masonry, yet the front of the upper floor is of whitewashed rubble, with cornices and window ornaments of white stucco, so suggestive of the sugar ornaments of a bride cake.

Further on, after passing a church, the street opens out

wider ; trees on the edge of the pavement give a grateful shade to the many boot-blacks, vendors of cakes, loafers, and idlers ; and shops, hotels, stores, and luncheon-rooms, line the way. It leads past the Capella Impérial, (the Imperial Chapel,) on to a large open square, fenced in with iron railings enclosing a neat garden of trees, shrubs, flowers, and pleasant grass-plots. On its further side is the old-fashioned town palace of the Emperor (now rarely used as a residence), and the large and rather handsome building of the Public



The offices of the Minister of Agriculture and Public Works.

Works Department ; at the further end of the square are the fish and vegetable markets, in both of which is much to interest even the resident as well as the new arrival, and to astonish the latter with the "kill at forty yards" smells that will salute him.

Proceeding onwards along the Rua Direita, we pass on our right the Ruas da Alfandega, Hospicio, and Rosario, immensely long, straight, narrow streets, with tall balconied houses on each side, two, three, and four stories high, with shops and

stores on the ground-floor ; and finally we enter the Rua d' Ouvidor, the Bond Street of Rio.

In this narrow street the passage of vehicles is prohibited ; it is barely wide enough for two to pass each other. Here are handsome shops of all kinds of trades, handsomely fitted out. Here we pass, or meet, individuals of all classes of Rio life ; ladies in light summer toilettes, bright as butterflies, well-dressed men, both national and foreign, politicians, professional men, and merchants—a lively, polite, and courteous crowd. It is quite a modern sight to see ladies in the streets of Rio unattended by their male relatives or friends. The shops show a bright display of their various goods ; but let the stranger beware of them, if he enters he will fall amongst—Philistines. He is known at once as a stranger, and he will have to pay for his experience. To accompany a lady resident on a shopping expedition is a crucial trial to a man's patience ; it may be bad enough at home, but here the inevitable haggling over the prices is beyond a joke. As we pass the shops, we see evidences of the presence of the Anglo-Saxon and German race in notices, such as “gin-fiz, cocktails, lager bier,” and other inquired-for decoctions ; but it is not only the foreigners that are now the chief consumers, for young and old Brazil and Portugal, are found side by side with the thirsty “*estrangeiro*.” In this street we pass the British subscription library, a great boon to the residents, and much appreciated by them.

The Rua d' Ouvidor varies in its frequenters during the different hours of the day. In the early morning there are few to be seen ; the shops open, shop-boys and men are busy spreading their wares for the day, a few labourers pass, or may be a milch-cow and calf accompanied by a man, who milks the cow at the doors of his customers, and perhaps, at the same time, surreptitiously milks a bag of water he may have stowed away under his coat.

From early morning the tramcars quickly arrive, three at a time, but from eight to ten they commence to disgorge their loads of clerks and merchants, coming from the suburbs, then the street fills with the hurrying crowd, with perhaps a very few ladies; from ten to eleven arrive the black coats and top-hats of Brazilian officials and employés in the public offices. After that hour, ladies principally have their turn, coming in for shopping. All day the cars arrive and go away filled. About three, the black coats and hats congregate about "Castelões" (the confectioners), at the tram-car corner, and in various shop doors, and discuss with many a lively gesticulation and excited manner the day's politics—the nearly always absorbing topic. At four, the crowds of merchants and clerks return, they in their turn stopping for a chat or an inquiry for the latest European telegrams, or an abuse of Mr. Gladstone, or maybe a visit to No. 105, to try to quench their insatiable thirst, the married men being easily recognized by their loads of bundles and packages.

Going on further up the Rua d' Ouvidor, we pass another tramroad terminus, with its busy corner, and then emerge into a small open square, where there is usually a congregation of the tramcars of yet another terminus of another company. In this square is the large, handsome church of São Francisco de Paulo, a favourite for the celebration of requiem masses of defunct leading citizens. The musical service is excellently performed.

We will now turn out of the Ouvidor into the Rua dos Ourives,⁶ another long narrow street at right angles to the former, a street of jewellers' shops principally; the jewels displayed in the windows are of excellent workmanship; although in many cases the designs are admirable and novel, they are perhaps too fantastic and elaborate to suit English

⁶ Goldsmiths' Street.

tastes. The vista down these long streets is a brilliant scene. The balconied windows, the coloured but dingy fronts of the houses, the ever-varying tints and brightness ; the bright sun and azure sky make even the dinginess appear picturesque, and the shade of the tall houses gives a warmth to the picture that is absent in more open localities.

On arriving at the Custom House we find all the baggage piled on a low platform in a large warehouse ; we indicate to labourers our respective trunks ; they are uncorded and examined and passed. We may perhaps encounter a supercilious official, but if we have taken care to take with us a *despachante* of a mercantile house, much labour is saved, and a traveller has not much to complain of. Outside the doors a swarm of labourers with hand-carts noisily compete for the job of carrying your luggage : take the number of the cart engaged, and your luggage will be safely delivered to wherever you may indicate, and you may go your own ways.

The best hotels are Dr. Eiras' lunatic asylum at Botafogo, Hotel Candido at Laranjeiras, Carson's, and the Hotel Estrangeiros in the Catette. A lunatic asylum is a strange place to recommend ; it is certainly a lunatic asylum, but attached to it, the medical proprietor has a very comfortable hotel with excellent bath appliances of various kinds.

Candido's is the healthiest and most charmingly situated, as well as being very moderate in charges and fairly comfortable. Up on the hills at Tijuca there are other hotels, but they require more than two hours' journey to reach them.

We now go and look up some of our friends and acquaintances in the various merchants' offices ; we find them all hard at work in their shirt-sleeves ; they welcome us heartily, and are sure to press us to take "pot-luck" at their homes.

There are no want of hotels in Rio, for in 1881 there were all told, 82 ; of these, 29 were of the better order. The buildings comprised in this latter class have approximately cost 420,000*l.*, and provide an accommodation for 1050 guests. There were then (now many more), 12 lines of ocean steamers, 11 of coasting, and 4 lines of railway converging in Rio, all carrying collectively 317,760 first-class travellers to and from Rio per annum, or a daily average of 870.⁷ Yet with all this movement and the comparatively large number of hotels, there is not one that fulfils the usual requirements of a first-class inn ; the few better ones are always full, and it is difficult to find a vacant room at Eiras' or Candido's.

In selecting your choice of an hotel, by all means keep away from the city and national hotels, their mosquitos and odorous rooms, at least for residential purposes : for breakfast, lunches, or dinners, you cannot do better than at the "Globo," the "Rio de Janeiro," &c. Most bachelor residents take a house, and four or five or six of them occupy it conjointly, or else one may rent rooms in the suburbs and take his meals in the city restaurants.

In the evening one can visit friends and families, or go to a theatre, where the performance is but mediocre, or in the season, May, June, July, to the Opera, where the music is often good, or else we may have a ride in the fast-going tramcars. This latter recreation on a warm evening is a favourite diversion, especially a drive out in the comparatively cool districts of the Botanical Gardens and the Gâvea.

A week or a fortnight can be extremely well spent in Rio by a tourist. A few days amongst the forest-clad hills of Tijuca, abounding in tree and other ferns, palms, parasites,

⁷ These statistics are the result of my own researches, and I can vouch for their exactness.

and orchids, flowers, butterflies, and everywhere the pleasant murmur of trickling water ; from many points, grand and glorious views of the bay and city can be seen.

A climb up the Peak of Tijuca, 3400 feet high, results in obtaining the finest panorama in Rio, it is indeed impressive ; a world of forest-clad hills is around us, and below but far away is spread out the large area of the city and the broad expanse of the bay—shimmering in the bright light, its waters a deep blue, and dotted with many islands and the shipping ; beyond it are the lofty dark-blue hills of the Organ Mountains, and the hills beyond Nitheroy, hundreds of hills fading into the hazy distance and mingling with the faint blue clouds of the horizon.

Another excursion is up the Corcovado, 2600 feet high ; a centre-line railway will take the traveller to the top. The grades are extremely steep, and the speed is only a walking pace ; the line winds round precipitous hills, crosses deep gorges by lofty viaducts, and passes through woods and bush ; all the way is heard the music of falling water, and the murmur of the wind amidst the rustling foliage of the brilliant vegetation. This line was projected, designed, and constructed by national engineers, and paid for by national capital. At present the traffic does not yield a fair return for the outlay, but it should eventually do so, when tourists include Rio in their lists of places to be visited ; that is only a question of time.

Half-way up the ascent, at Paineiras, an hotel is built near the edge of a precipice that commands extensive views of granite slopes, wooded hills and valleys, and the deep-blue sea. An objection to a residence here are the heavy sea-mists that often congregate around the summit at night in the form of a perceptibly fine drizzle, that turns everything damp and mouldy. On the summit of the Corcovado is an iron pavilion

where coffee and other refreshments can be obtained, and where a band will probably play on Sundays and holidays. The view from this peak is also grand in the extreme ; away below us we see the roads mere lines of white, the tramcars little moving dots ; a great mass of forest verdure covers the mountains, hills, valleys, and plains ; the lakes of water, the sea, the bay, roads, and houses are all spread out like a map. The horizon of the sea is so distant that it merges into the



View from the Corcovado railway. Sea-mist driving up the valley of Paineiras.

light azure of the heavens, and the division between sky and water is imperceptible.

As one gazes upon the vast panorama, thoughts will occur of the changes that time has wrought, and the historical events these grand rocks and mountains have witnessed. Where are all those tribes of aborigines disappeared to, that the early discoverers found on these coasts ? The great warlike nation of Tamoyos that inhabited the coast from Rio to São Paulo, and fought with the French

under Villegagnon against the Portuguese ; the Carijos or Guaras of the Serra do Mar ; the great and numerous race of Goytacazes that occupied the plains of Cabo Frio with their different tribes of Goytaca-guassa, Goytaca-moppis, Goytaca-jacoreto, and another affinity of the race, the Goyanezes, on the north of the Serra do Mar : all are gone, as are the Mohawks and the Delawares from the United States. Yet not quite have these Brazilian aborigines disappeared, for we can trace an Indian characteristic in almost every countryman we meet.

A tour amongst the Organ Mountains to Nova Friburgo, Petropolis, and Therezopolis, will carry the visitor to yet other lovely scenes.

A drive in any direction in the tramcars is always enjoyable and interesting ; the excellent mules travel at a rapid trot, creating a current of air on the hottest day. The chalets and villas in their lovely gardens alone are a beautiful sight ; where the flowers are of the most brilliant colours, and the foliage delicate and grand scintillates with light as though each leaf was varnished. A ride up the Larangeiras in the late afternoon when long shadows are then thrown athwart the bright, sunny road, is most picturesque. The villas are numerous and charming, lofty hills of woods or giant hills of scarped granite rise up in the rear of the gardens on both sides of the way ; at the end of the valley the Corcovado rears its verdant slopes and rocky summit. It is a bright scene toned down with deep soft shades ; even here the cadence of running waters by the roadside adds its charm.

There are in Rio de Janeiro more than 100 miles of tram-roads ; probably no city in the world is so well provided, and they all pay well, large fortunes having been realized by the lucky first purchasers of the shares of the Jardim Botânico tram-road, who received dividends equal to 100 per cent. of the paid-up capital.

Rio de Janeiro has of course, its Wapping, the Saúde, where are long lines of warehouses and landing-stages. The streets are winding, old, and narrow ; traffic blocks are constant ; tramcars, cabs, waggons, and carts are continually jammed together, when the drivers have to extricate their vehicles as best they can. The tram-drivers sit down resignedly and patiently, the passengers fume, the carters swear and curse. Burly negros trot by, carrying heavy loads on their heads, foreign seamen reel about fuddled with *cachaça*, foul smells arise from pools of green stagnant water and piles of garbage, and small *vendas* add their quota to the odours. From here to the coffee centres of the town, the block is often continual ; it goes on from day to day, from year to year, a useless waste of time and labour. Every one knows it, sees it, abuses it, yet nothing is done to effectually remedy it.

There are on the average, say 3,000,000 bags of coffee per annum brought through these narrow streets, the transport costing 500 reis per bag from the time they leave the railway until put on board ship.

To obviate this waste of energy and time, a few years ago the Government decreed the construction of a large maritime station where the coffee could be delivered into warehouses on the sea-shore and thence transferred direct to the ships. I was entrusted with this work ; tunnels were bored through the granitic-gneiss hills that separate the old railway terminus at Campo Sta. Anna from the sea, large areas were purchased and levelled, land reclaimed from the bay, sea-walls constructed, large warehouses erected, and a long iron pier built ; but alas ! great private invested interests were threatened, the defects of an ill-chosen site were magnified and utilized by wire pullers to induce the Senate to refuse to vote the sums necessary to complete the project, making it thereby a disastrous failure ; yet

the economy of the cost of transport, let alone the convenience arising from the diminution of the dense traffic in the narrow streets, would in one year have been sufficient to perfectly complete the scheme, and enable coffee to be put aboard vessels at 200 instead of 500 reis, and effect a saving to the general public or to the country of 900 contos of reis, say 67,500*l.* per annum.^s 300,000*l.* have thus been almost uselessly expended, as it must necessarily be, if it does not fulfil the object it was intended for.

In and around the city there are many wonderfully beautiful public parks and gardens, handsome public buildings, churches, museums, library, &c., usually found in cities of importance, all of which have been repeatedly described by various writers on Brazil.

The new arrival is nearly always recommended to go at once and see the Botanical Gardens, and their world-famed avenue of imperial palms.

Although the drive in the open tramcar is delightful, and the visitor will find the lovely gardens, both in their productions, the care bestowed upon them, and the charming surrounding scenery, quite equal to his expectations, if he remains in Rio for twenty years he will probably not go again more than once a year, if even that; the reason is that, attractive as the gardens naturally are, and impressive as they may be upon the new arrival, he will become so habituated to similar vegetation in the many gardens of the villas and châteaux that everywhere surround the town, that the Gardens become no longer a novelty or appreciated as they were at the first visit. The beautiful park of Campo Sta. Anna, the Passeio Publico

^s I demonstrated to the railway authorities the proof of this economy of labour and expense by submitting to them a proposal to complete the project, but after a long consideration it was admitted to be very advantageous, but quietly declined. As it is at present, the confusion of traffic and its cost, is even greater than formerly.

Gardens, are also gems of tropical flora, and well worth repeated visits.

The most noted buildings are the Candelaria Cathedral, the Bank of Brazil, the Public Works Offices, the New Exchange, the Custom House, the Dom Pedro II. Railway Terminus, the palaces of the Emperor, and the palace of the Barão de Nova Friburgo, and many of the villas of the wealthy Brazilians. The Bank of Brazil is a gem of masonry ; its architecture is classic, and it is the purest architectural



The Passeio Publico (Public Gardens).

building in Brazil. Its front and side are of solid granite, and the masonry is truly wonderful. The Cathedral is a large, showy, highly-decorated edifice ; no labour or expense has been spared upon it, but its foundations are doubtful.

The nature of the subsoil of the area of the greater part of the old city renders the greatest care and caution necessary in the construction of great buildings, for there are evidences to show that this area was once under water ; as it is, there is at varying depths, a deep strata of very

deceptive soil, firm in places, that a few yards away will necessitate piled foundations.

Spix, during his visit to Rio in 1817, observed : " There is scarcely any taste here for painting and sculpture, and hence we see even in the churches, instead of real works of art, only ornaments overloaded with gold. Music, on the contrary, is cultivated with more partiality by the Brazilians, and particularly in Rio de Janeiro, and in this art they may perhaps the soonest obtain a certain degree of perfection. The guitar here, as in the south of Europe, is the favourite instrument ; a pianoforte, on the contrary, is a very rare article of furniture, met with only in the richest houses."⁹

What he then said with regard to national absence of taste for painting and sculpture, is still true, although the *Academia das Bellas Artes* has tried its best to foster any latent genius, and one or two promising pupils have been sent to Italy to study at the cost of the Government ;¹ and exhibitions of pictures have also been occasionally held, but a view of them will only show what feeble results the academy has produced from its disciples. Of late years a few picture-shops have been opened in the city, but a glance at their canvases is sufficient to generate an attack of yellow fever in any sensitive man of good taste. On the other hand, music is keenly appreciated by all Brazilians, and there are many excellent musicians amongst them ; their composer, Carlos Gomes, they are immensely proud of, and gave him a wildly delirious welcome on his return from Europe.

⁹ Spix further mentions that in 1817 the tides of Rio de Janeiro attained the height of fourteen or fifteen feet, whereas now their extreme difference is only eight feet, consequently either he must have been mistaken or some very considerable changes have occurred during the past sixty-eight years in the tidal movements of this part of the world.

¹ But Pedro Americo is truly a great painter, for a picture he now has in hand measures twenty-seven feet by fourteen feet.

No house is considered complete without a piano ; even a mechanic must have one in his home ; the tone and appearance is a secondary consideration, so long as it is a piano. Musical clubs exist in all the suburbs and in the city. In the evening, in many of the streets, the many musical efforts are perfectly appalling. In the upper floor of a house in one street, the brass band (with plenty of drum and cymbals) of some local club, thunders away at a march ; all down the street are pianos, good bad and indifferent, clanging and tinkling, or a lady's voice is heard delivering a high-pitched *bravura* ; in another street, often another brass band bangs away within sound of its neighbour, then is heard somewhere the never-ceasing sound of church-bells and the reports of exploding rockets.

In taking our walks through the streets of the city, or driving out in the suburbs, many sights must necessarily attract our attention by their novelties. The streets, even to many miles out of town, are paved with granite cubes a little larger than a brick, known by the sweet little name of "parallelipipodes." In many of the side-streets of the city the paving is execrable, and further made more difficult for wheeled vehicles by the lines of narrow-gauge tramways that traverse the city in all directions ; otherwise the paving is fairly good. The footpaths are paved with huge slabs of granite a foot or eighteen inches thick, that in the main thoroughfares are more or less level, but in some of the minor bye-streets there are great holes filled with green water and a tipped-up slab that will remain for weeks and months uncared for. Although there is plenty of movement in the streets, and at times some are quite crowded, great numbers of loafers and loungers are everywhere seen ; Portuguese labourers with hand-carts, or blacks ready with their woolly heads to carry burdens,² sit on the curb-stone,

² Many years ago some wheelbarrows were imported into North Per-

lounge against corners, or sleep in doorways, or the Mina blacks pass their spare time in plaiting straw for hats, waiting for a job ; they will, when they get an offer, ask half a day's wage for an hour's work. At most of the corners of the principal streets are small octagonal *kioskes* of wood, gaudily and fancifully coloured, where the labourers purchase hot coffee, a dram of *cachaça* (native rum), or invest their money in lottery tickets ; large placards announce that to-morrow the wheel will run (*amanha anda a roda*), or that some great Rio, or São Paulo lottery, with a first prize of a 1000 contos of reis (75,000*l.*), is *irrevogavelmente* (irrevocably) fixed for a certain date ; but when that date arrives, if all the tickets have not been sold, it is again *irrevogavelmente* fixed for a later date—and yet perhaps again to a *positivamente e imperetrivelmente* (positively and imperatively), another last-fixed occasion.³

Amongst the people we pass, is a preponderance of coloured gentry, black and brown, but wherever we look, we notice an absence of any tattered, poverty-stricken individuals ; not a lad, man, or woman corresponds to our street arabs, or ghoulis beggars of London, except perhaps, a few Italian boys selling newspapers ; but these lads, in ragged shirt and trousers only, race to and fro, shouting the titles of their papers, skylarking always, plump and in good condition,

nambuco for the negros to transport the bags of sugar in, instead of on their heads. After a very short trial they ended by carrying barrow and bags of sugar on their heads.

³ These lotteries with their huge prizes are a source of much misery, and a destruction of all thrifty habits. They tempt servants to rob their employers ; small savings are wasted that should be put by for a rainy day ; hopes are built up on the possibility of winning the prize ; and suicides through the consequent disappointment are not unfrequent. Every one purchases a ticket for ten milreis (about fifteen shillings) : for the chance to win 75,000*l.* for fifteen shillings is a great temptation. One individual benefits at the cost of the community.

if albeit rather grimy, and are evidently in the best of health and spirits, and thoroughly enjoy life, far more so than many of the careworn, anxious-looking, black-coated adults.

On any festive occasion, when the streets are crowded with people, an inebriated reveller or a miserably-clad man or woman will nowhere be seen, unless it may be a foreign seaman, in his uncouth, soiled, and coarse garments ; and it is pleasant to see the native artisans and labourers, on the conclusion of their work in arsenal, docks, or public works, remove the stains of their labour from their persons, and many will put on a change of linen and decent clothes, and appear in the city, respectable members of society. The contrast is not favourable to the British workman.

Many of the shops are well arranged and attractive, such as linendrapers, haberdashers, tailors, stationers, jewellers, saddlers, bootmakers, confectioners, bakers, grocers, librarians, glass and earthenware, glovers, hatters, and others, and in some fancy shops the pretty feather flowers for which Rio is celebrated are well worth inspecting. The butchers' shops are chiefly situated in the minor streets of the Rua Sete de Setembro and Rua d' Assembleia, and well it is they are out of the main thoroughfares, for the display of meat in the form of badly-cut joints, and the sight of the foul-smelling shops, and dirty surroundings, are anything but conducive to the enjoyment of one's dinner. It is impossible to obtain a good joint of any specified size or weight, your housekeeper must take what your butcher offers ; if a sirloin of eight or ten pounds is required, it is necessary to ask for half as much again, so as to enable the cook to send up a presentable dish, by chopping off a yard of the skirt from the joint, that is cut from the top to the bottom of one side of the animal. The minor grocers' shops (*vendas*), are a combination of rank smells and greasy compounds ; the perfumes of Newfoundland codfish, dried

beef, salted pork, kerosine, candles, and soap, produce anything but a pleasant bouquet. The greater part of the shopkeepers are foreigners, Portuguese, French, German, and a very few British, for a Brazilian prefers to lead a life of semi-starvation as a public employé rather than keep a shop.

We cannot help noticing, fresh as we are from Europe, the many sallow and yellow complexions, and the slight figures of many of the more well-to-do classes we meet; an author of a work on Brazil compared them to the denizens of a lazaret-house, and then entered upon a long vituperation of the deleterious climate. The climate should not be blamed so much, for in Rio it is so amenable for the development of young children, that many delicate ones are reared, that in northern Europe would not be able to withstand the vicissitudes of the climate, whereas they have a better chance in Brazil to live, but grow up stunted and fragile, and are pointed out as the effects of the bad climate. Look at the greater part of the foreign residents, they are healthy and robust when they are blessed with sound constitutions and temperate habits. In some years an epidemic of yellow fever breaks out, and if out of a population of 400,000 inhabitants, the deaths from it average 400 per month, during its usual season of a couple of months, it is considered an extremely bad year, yet it is never so bad as some of the terrible visitations of New Orleans, or the West Indies, and no one of the old residents takes very much notice of it. In any case any one might go to Rio in the month of May to October, without fear, for the low temperature of the first three of these months effectually prohibits the generation of the germs in an epidemical form. Certainly, many of the foreign residents have fallen victims to this fell scourge, and more or less all at different times have

had attacks of it, yet if in Rio this fever is prevalent, the city is free from many of the diseases common to England.⁴

The police of Rio is another novel feature that the visitor views with curiosity ; they are small, wizened, under-sized, unwholesome-looking, whitey-brown men, clad in a uniform consisting of a small shako (cocked rakishly well on one side of their head), tunic and nether garments of brown holland, and a black waistbelt carrying a short sword. Their apparent chief occupation is to lounge at street corners in the limpest of attitudes and smoke cigarettes ; it requires two to run in a small boy, four to manage an ordinary native, and a company to master the frolics of a British Jack-ashore, who for a time bowls them over like ninepins, but their numbers eventually overcome him, and poor Jack, but too often a sad reprobate, becomes much belaboured with the flats of their swords on his march to the *callabuça*.

It has been suggested that if the force was completely suppressed, public order would not be disturbed, and a considerable economy effected.

If a band of music is heard advancing along any street at the head of a regiment of troops, it will be just advisable for the stranger to withdraw into a shop, for in front of the band, will be seen a group of coloured men and boys capering about and performing the agile actions of the play of the *Capoeiros*. These *Capoeiros* are a class of the lowest order of Brazilian ruffians, rogues and vagabonds every one ; their favourite

⁴ I know of a case of an Englishman who had reared a large and healthy family in Brazil, and after escaping every yellow fever season, he went to London with his wife and children, and rented a furnished house that he unfortunately only found out when too late had not been disinfected from a death from scarlet fever ; his wife and three children died in that house, a few weeks after their arrival, from that disease. Sad as was the occurrence, no one would think of avoiding London because of scarlet fever.

weapon is a razor, which they carry in their hands and hidden in their sleeves. Out of sheer devilry and wantonness, they have been known to disembowel a man a stranger to them and a casual looker-on. Attempts have been, and are made to suppress them, but they enjoy a protection from certain influential local magnates to whom they are useful in election times. One of these politicians is known as "*a flor de minha gente*;" story says, in consequence of a report of a note of his having been found, in which he stated he would send, "*a flor de minha gente*," (the flower of my people) to counter-influence the voting that was then going against him.⁵

Out in the suburbs the universal jangle and clang of wheezy and asthmatic pianos, tinkling pianos, good-sounding pianos, and pianos of every description of sound,⁶ rather tend to startle the new arrival and make him wonder what sort of housekeepers are the female Brazilians, if they can all devote so much of their lives to such a purpose; but great as is the time thus employed, it is a mere fraction compared to what is absorbed in idly staring out of the windows; the sills are often visibly polished with constant leaning upon—even in some cases cushioned for the purpose. In going up any one of the quiet, stone-paved, hot, shadeless by-streets of the near suburbs—especially if there is a lady with you—you will see before and behind, a long line of outstretched heads, with eyes all focussed upon your companion; as you pass them, one after the other, you will hear "*Mariquinha!*" or "*Joaquinha!*" called for hastily in high nasal voices to come and see the *moça estrangeira* (foreign lady), and audible remarks will be passed

⁵ In the local newspapers not a day passes but one sees in them, under the heading of "*Ainda e sempre as capoeiras*," some announcement of their rascally exploits.

⁶ What a blessed place Rio must have been in 1817, when pianos were only found in the richest houses!

on her appearance, or the items of her dress, sometimes very flattering, sometimes otherwise; you can perceptibly feel that the heads turn as you pass onwards, and that you are the centre of free observation and criticism; the results are even sometimes audibly discussed from the opposite sides of the streets. As we glance in the open lattice, or louvred, curtainless windows into the bare, comfortless interiors, so utterly devoid of the many little nicknacks that so tend to make a house a home, and see the formal array of cane-seated sofas and stiff-backed chairs, gaudy strips of carpets, cheap and gaudy vases, tinselly ornaments, marble-topped tables—a rocking-chair may be, the only approach to comfort amidst many evidences of unthrifty slatternness—one can somewhat understand why the women retreat from their unattractive rooms and spend their time in looking upon the passers-by. In some of the smaller houses the inmates are so lazy that the glazed windows are opaque with dirt, where little spaces have been rubbed clear with the finger for peep-holes, and a broken pane long serves as a treasured post of observation.

At the same time it must be observed that this class of houses is not representative of the better ones we find further away in more distant suburbs, any more than a 30*l.* or 40*l.* a year house in London is representative of our many charming suburban villas.

If the new arrival, as is very often the case, has had an opportunity to form an acquaintance on the voyage with some member of the upper classes of Brazilian society, he will be welcomed with a frank hospitality, and find there a home, different certainly in every way to what he has seen in the Old Country. He will probably find a detached house, not a sombre, matter-of-fact, brick structure, but a building glowing in colour and often fantastic ornamentation of stucco, or fanciful woodwork; the windows are curtained, and the

elaborately clean interior furnished with costly and showy French furniture and ornaments ; but even here there will be a stiff and formal array of the chairs and tables, and a conspicuous absence of individual taste and of the evidence of a lady's hand, excepting perhaps a tastefully arranged group of



An old-fashioned *chacara* or suburban villa in the Laranjeiras.

flowers in a vase ; even in most of the wealthiest homes good pictures are rarely met with. Outside the house, the gardens gleam and glitter with colour and brilliancy ; vividly green grass-plots and ornamental basins of water and fountains, and Portuguese statuary shaded by noble palms of many varieties,

gorgeous or highly perfumed flowers, or noble dark green mango-trees, or delicate-leaved light-green mimosas, or huge bushes of crimson poinsettias; many of the trunks have fastened to them great clumps of orchids in full flower; and in the rear of the house are fruit-trees of many kinds peculiar to the tropics. Truly these gardens at first sight are surprisingly beautiful; we become accustomed to them after a time, and only in after-years, when we can see them no more, can we realize on a foggy London day the memories of their bright scintillating beauties, and think with regret of the bright blue skies, the luxurious temperature, the humming-birds flashing like living jewels from flower to flower; truly there are many worse places than beautiful Rio.

If we spend our first evening at the *chacara*⁷ of a friend—say either in the Larangeiras, or at Tijuca, or at the island of Paquetá—what a sensation of delight we shall experience as the cool freshness of evening comes on! The air is still and moist with dews, and laden with rich perfumes; the sky is extraordinarily brilliant with stars, or with such a bright moonlight as we have rarely experienced; there is a great, almost oppressive feeling of quietness, even enhanced, not disturbed, by the murmur of waters or the cries of night-birds, or the soft rustle of the foliage as a gentle wind wafts by, making the burnished leaves glisten in the soft cold light. Indoors we shall find comfort and luxury, a well-appointed and served table, tasteful arrangements of furniture, good-fellowship and a hearty welcome, and we shall come to the conclusion that these exiles are rather to be envied than otherwise.

In descending the hill from Boa Vista, Tijuca, in the morning, a wonderful sight is often seen, namely, the whole of the bay and the city covered with a dense white mist, that with the sun shining on its billowy surface, resembles a

⁷ A detached suburban villa.

vast expanse of snow. Here and there the tops of hills project above its surface like islands in a frozen sea, and as a contrast, on each side of the road we descend, are seen ferns, and flowers, and grasses, and picturesque tropical vegetation, all jewelled with dewdrops, that flash in the soft rays of the early sunlight.

At Paqueta^s (an extremely interesting island about ten miles up the bay), we shall find many most picturesquely situated homesteads—one especially, a ground-floor house, snug, comfortable and homely in every sense of the word, for Mr. M—'s house and generous, unceremonious hospitality to so many visitors to Rio, will recall to perhaps many a reader, the grateful memories of a quiet happy evening spent in that broad verandah under the shade of the huge almond-tree, with his family of lusty boys and girls, whose appearance is such a favourable proof of the amenities of Rio climate; at the foot of the lawn in front of the house, is a row of cocoa-nut palms, with maybe, the pale moon playing bo-peep behind the quivering, gently clattering follicules of the fronds, fluttering in the passing breeze, and the wavelets of the bay sound a sleepy lullaby, as they slowly and gently lave with a hush-sh the sandy shore and the huge granite boulders of the corner. The handsome, exceedingly well-cared-for steam launch, is anchored a little way off; boats and canoes line the shore, fishing-tackle and nets fill a large boat-house hard by, the materials for spending a spare day on the water; the lawn is studded with flower-beds, the verandah covered with flowering creepers, and many orchids in flower are tied to tree-trunks. How enjoyable it is on a warm summer night to lazily roll in the rocking-chairs, enjoy a cigar and the quiet scene, with the pleasant surroundings, and melodious sounds of rippling water and rustling leaves.

^s Pronounced Pack-e-tah. •

I have already given more space than I intended to devote to a brief sketch of Rio, and must conclude the subject by enumerating a list of its amusements. The well-attended racecourse forms a great and popular attraction on Sundays, and Saints' days. There are occasional regattas of rowing clubs on the bay on holidays. The English lawn-tennis club ground is frequented every late afternoon by many young Englishmen and ladies. There is the athletic sports, the cricket club, and British amateur dramatic performances are occasionally given in one of the theatres.



The cosy corner of Paquetá, Mr. M—'s house.

There existed, within a few years ago, an excellent British social club, until it was exterminated by party bickerings. The present Club Beethoven is a cosmopolitan, social, and musical club; it is conveniently situated, has ample accommodation, and provides many an excellent concert of really good classical music. About ten theatres, including the opera-house, give performances in Portuguese, French, and Italian. But excepting the band that plays in the Passeio Publico in the evening, and one or two very second-rate beer-gardens, there is little of open-air entertainments for the night.

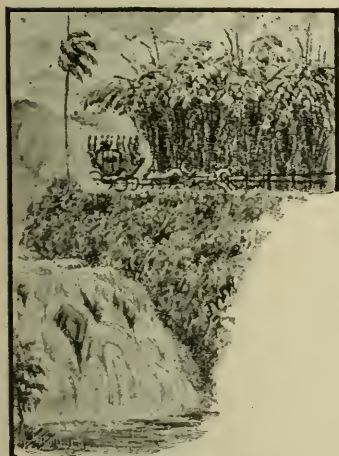
I must pass without a notice the many admirable hospitals and charitable and scientific institutions, the national library and its 120,000 volumes, the numerous schools, colleges, and academies, the arsenals, &c., for the reader has a long road before him.⁹

⁹ For statistics, and other information of Rio, see Appendix.

CHAPTER II.

FROM RIO DE JANEIRO TO BARBACENA.

The departure from Rio—The railway-station—My delight at the prospect of roughing it—The railway journey ; its scenery and incidents—The course of the railway—At Entre Rios ; coach to Juiz da Fora—At Juiz da Fora—The best hotel in Brazil—Fellow-countrymen—A veteran pioneer—Orchids of Juiz da Fora—Our camarado and mule troop—An abrupt and astonishing departure from Juiz da Fora—The first day's ride—At Chapeo d'Uvas—A sea of mud—A country hotel ; its guests and accommodation—A pasture—A late start—The country-side—Arrive at Mantequeira—Our host and his hotel—Mantequeira mists—Delightful temperature and scenery—A horrible road—A Minas forest—The summit of the Mantequeira range—Barbacena ; its town, lovely climate, extensive scenery, and glorious campos—Our hotel ; fellow-countrymen—An eccentric individual.



The União e Indústria Road.

IN January of 1873, I arrived in Rio de Janeiro from one of the northern provinces of Brazil, to join a staff of engineers organized by the Public Works Construction Company, of London, to carry out a contract with the Brazilian Government to make certain surveys and explorations in the interior of Brazil. The work was divided into two sections : the first to consist of a survey down the valleys of the Rio Parãopeba

and of the Rio São Francisco, as far as the Cachoeira of

Pirapora on the latter, for the purpose of determining the relative advantages of this route, or that of another down the Rio das Velhas, for the final extension of the D. Pedro II. Railway to such a point as would bring its traffic into direct communication with the navigation of the Rio São Francisco.¹ The second section was to consist of an exploration by route surveys, barometrical levellings, and reports upon the districts between the Rios São Francisco and Tocantins, with the view of obtaining knowledge of the best routes, ways, and means for connecting the traffic of the navigable São Francisco with that of the Tocantins, in order that, upon the completion of the D. Pedro II. Railway, a grand line of internal communication might be created from Rio de Janeiro to the Valley of the Amazons. The explorations of this second section were to consist of two routes: one starting from Carunhanha on the São Francisco, up the valley of the Rio Carunhanha to Palma, or its neighbourhood on the Tocantins; the other was to start from the mouth of the Rio Grande, also a tributary of the Rio São Francisco, up the same Rio Grande and the Rio Preto to the valley of the Rio do Somno, in Goyaz, and thence to the mouth of that river on the Rio Tocantins.

To most young men, such a prospect of a wild life of adventure over an immense area of comparatively unknown

¹ The Rio das Velhas route was ultimately adopted by the Government, as that river can be made navigable and will greatly diminish the extent of railway that the Parãopeba route would have required. The railway in 1885, was open to traffic as far as Queluz on the central line; Cachoeira on the S. Paulo line; and Porto Novo da Cunha on the eastern line, making a total length of 451 miles. The construction of the last section to Macahubas on the Rio das Velhas is also well advanced. The total cost of the railway thus far has been 95,648 : 323 \$ 649 (at present exchange equal to 7,173,878*l.*). This cost has been taken from official documents, but it is curious to note the last nine reis, as the smallest coin in the realm is a ten reis piece, somewhat less than a farthing.

lands, would undoubtedly have a great charm, and although I had already been a few years in North Brazil, and had seen much of its rough inland life, yet I was no exception. I was full of enthusiasm, and the glamour of romantic ideas, and prepared to meet any privations with a Mark Tapley spirit.

After the lapse of the inevitable delays inherent to all business transactions in Rio de Janeiro, the warm, stewy, gray morn of the 14th of February dawned upon the odorous city of São Sebastião and I took my departure from the Hotel dos Estrangeiros, in a cab that rattled noisily along the yet quiet, paved streets to the railway-station. The vehicle was a Tilbury, the cab of Rio, a species of small hansom minus the driver's seat behind, for these delectable cabmen like not an exposure to heat and rain, and take their seat inside, in sociable contact with their fare.

At the station a medley of the component varieties of the Brazilian race crowded the platform, a mixture of the descendants of whites, Indians, and negroes. There were a few of the upper ten (leading politicians, who are nearly always owners of large Fazendas), in white linen ponchos, patent leather boots, and Panama hats; handsome, gentlemanly-looking white men usually, each accompanied by a black servant in livery, wonderful in colour, coatee, cockade, buttons, and boots. Then there were well-to-do farmers, also in white ponchos and huge buff boots, loud of voice, and redolent of garlic and tobacco. There were bilious-looking tradêsmen, sallow clerks, fat Portuguese, and a nondescript crowd of brown and black *matutos* (peasants), tall, thin, wiry men, capable of enduring (when they like to exert themselves) great and prolonged fatigues. A group of white, brown, and black soldiers in thick, coarse blue-cloth uniforms, and heavy marching order, of rifles, sword-bayonets, cloaks, haversacks, &c., were proceeding, maybe, in quest of a criminal, or

to relieve the small garrison of a country town, or to return the handcuffed black they have with them to his owner or to jail, for he may be a runaway slave or a malefactor, probably the latter, as the capture of fugitive slaves is generally made by the agents of the owner. The female sex were represented by the often handsome, and always well-dressed, ladies of the upper ten; the relatives of the farmers and traders, gorgeous in colours and wonderful in hats and elaborate boots; the relatives of the *matutos*, still more brilliant in gaudy shawls and wondrous hats, or none at all, the ribbons of the hats, maybe, a flaming red, or other bright colour, but the shawl is invariably a painful opposite tone; and last, and not by any means least, are big, burly Mina blacks, free and independent, elbowing their massive forms through the crowd with as little ceremony as a coalheaver in a London mob: their heads are swathed in long, thin textures in the form of turbans, a low embroidered chemise barely covers one glistening rounded, bare, brown shoulder; the skirts are voluminous, as is rendered necessary; a shawl of the blue-and-white coarse cotton material affected by these people, is thrown over one shoulder with a careless grace that completes the picturesqueness of their costume and of their grand physique.

Small cups of black coffee, and greasy cakes, and slices of *pão delor dos anjos* (angel's sponge-cake), and sundry small drams of brandy, and *laranginha*, (white rum flavoured with orange-bitters), were being rapidly despatched at the refreshment-bar on the platform, and in the various street-stalls outside. Clouds of smoke arose everywhere from cigarettes; boys shouted the names of morning papers. There was a gabble of tongues, much gesticulation, much cuddling, many tears, the bell clangs and the hoarse whistle sounds; pompous guards and station-master, resplendent in brass buttons, gold braid and blue-cloth suits, hurry the lagging ones; a rush for seats, and

finally the train of cars winds away out of the station. The cars are built on the American principle, handsome, well-constructed and cool; the seats are wide and comfortable in form, with cane bottoms and backs. I sat me down with a feeling of exultation as I realized that at last I was then fairly on my way for the long-desired dream of my youth—a long sojourn and travel in tropical wilds. I am afraid De Foe and his “Robinson Crusoe,” and Captain Mayne Reid and similar writers are largely responsible for the wild imaginings they create in youthful minds, and that sends so many Englishmen out into the wide world, and makes our race such a roving one, and the British Empire so vast.

We are on the express main-line train, and rattle along at a good pace over a flat country for thirty-eight miles to Belem, a very agreeable situation surrounded by extensive swamps. On the way, we pass soon after leaving the station, the public slaughter-houses of São Christovão, where thousands of black *urubus* (Turkey buzzards) stand with outspread wings in long lines upon the roof-ridges, the fences, and the walls, drying their dew-laden feathers, or perhaps disinfecting their foul bodies with the purifying effects of sun and wind.² After passing this unpleasant scene and its reeking smells, we soon after run through the grounds of the Emperor's palace at São Christovão, then on through the long suburbs of Rio, and many more distant villages, past scattered picturesque houses, and châteaux gaudy in paint and fantastic stucco, with gardens and *sítios*, brilliant with bright flowers, and rich in the varied forms and verdure of a heterogeneous growth of vegetation, growing in rich luxuriance, mingling one with another species in careless uncared-for array. Anon, the train rattles by the

² These slaughter-houses—eye-sores to the neighbourhood of the city—are now, in 1885, no longer met with, as a large public *abbatoir* has been constructed by the Government at Santa Cruz, thirty miles from Rio.

streets of small townships, bare of trees, dusty in the dry, and muddy in the wet weather, with rows of small door and window houses, or a *venda*, the suburban public-houses, close to large new pretentious churches, calling the faithful to early mass with the sound of bells, hammered and pounded, at 120 strokes to the minute.

The train rattles on, passing bridges with the roar that trains delight in, past clumps of forest, then scattered huts, then stretches of swampy moorland, then by the last outlying spurs of the forested hills that frame the picture of Rio, on to flatter and more and more marshy land, into a dense white mist that shrouds the scenery in a white pall—it enters the carriages in clouds like a Scotch mist, blanching the faces of the passengers to a pea-soup tint, and making them shiver with its chilly damp embrace ; but as the sun increases in power, it disperses in flying scud, floating away over woods, swamps, and up the hill-sides, the departing ghosts of night. At Belem we stop awhile to take in more coffee and bilious-looking cakes. From here there is a stiff ascent of 986 feet in thirteen miles. The line zigzags along crests of ridges, round steep hills, and through numerous tunnels, we rapidly ascend and again enter the regions of mist, and then pass above and out of it, at Palmeiras.

Here are extensive views of far-extending valleys and plains, but hidden from sight by the glistening surface of the masses of clouds that reflect the sunshine like a snowdrift ; the air of the hills is pure and refreshing, so different to the close, insipidly warm dawns, and odorous atmosphere of the city. A yet further rise of 314 feet in five miles, brings us to the summit of the Serra do Mar, in the centre of a long tunnel more than a mile in extent, and 1430 feet above the sea. This range becomes, further east, the Serra dos Orgoês, one of the bulwarks of the table-land of Brazil. The steep hill-

sides we pass are thinly covered with second-growth woods and bush; occasional homesteads and farms are seen in the valleys right and left of us as we descend towards the Rio Parahyba at Barra do Pirahy, accompanying the course of the river of this name; the fall from the summit to the Barra is 210 feet in eleven miles.

At Barra do Pirahy we find a little town on the borders of the Rio Parahyba; to the left the railway extends towards São Paulo; our direction is to the right, following the Rio Parahyba. At this station we alight and breakfast at a restaurant attached to the station. Everything is spread on the tables, and there is plenty of time for a hearty meal.

I bade good-bye at this place to a fellow-traveller, an Englishman; his name I have unfortunately forgotten, as I was desirous of afterwards verifying his statements. He told me he had an estate on the São Paulo branch of the D. Pedro II. Railway, and had established on it a colony of English farm-labourers; he had brought them out at his own expense, gave them each, house and land, and 3000 coffee-tree plants, and supported them until they were able to get to work in the cultivation of the coffee. The whole of their produce he receives and sends to market, the net results being divided equally between himself and the men. He stated, they were prosperous, contented, and happy; certainly, as far as climate and soil is concerned, they have all that could be desired, and the system ought to work well if carried out honestly.³

Leaving Barra do Pirahy, the railway descends the broad low valley of the Parahyba do Sul. Irregular ranges of hills line the limits of the valley, many of them covered with

³ A modified form of this system is now being adopted with great success by many Brazilian planters, and is found to be more economical than slave labour, and advantageous to the labourers.

coffee plantations—immense estates, with the farm-buildings looking like villages. The whole of this valley belongs to a comparatively few wealthy and important Brazilians, Viscondes and Barões, of such influence that the railway has had to cross the river five times between Pirahy and Porto Novo da Cunha by long and expensive bridges to serve the interests of a Barão this side, or a Visconde on the other. The train stops at every station now, and leisurely takes its time, arriving at Entre Rios about mid-day, 124 miles from Rio, and 890 feet above the sea.⁴ Beyond here the line is only in construction (1873) both down the Parahyba, and north up the Parahybuna.⁵

My colleague, Mr. W—, here met me, having come by the diligence from Petropolis, on the magnificent União and Industria macadamized road, certainly the finest and one of the most picturesque roads in Brazil; the ride and the charming scenery makes a delightful excursion from Rio. From Entre Rios it goes north to Juiz da Fora and Barbacena, but the coaches and waggons had been taken off the latter section and it had fallen into decay, as we eventually discovered to our cost.

This neighbourhood is one of the oldest and most important centres of the coffee district—its situation should promise to be the metropolis of the coffee region; yet eight years afterwards when I again passed here, comparatively little progress had been made, a very few small stores and houses had been added in the precincts of the station; but the neighbouring town of Parahyba had largely increased in size and importance.⁶

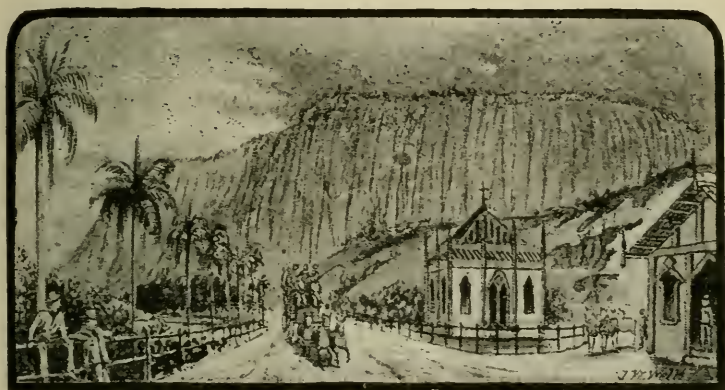
At mid-day we took our seats in the old-English-looking

⁴ The express now leaves Rio at 5 a.m., passes Barra do Pirahy at 7.24, and reaches Entre Rios at 9.28.

⁵ For further information of the D. Pedro II. Railway, see Appendix.

⁶ Parahyba and Entre Rios supply about 4000 tons of coffee per annum.

stage coach; the four fiery little mules make a frantic rush, rear and strain at their collars, as the ostlers "cast off," and now for a glorious drive along a magnificent road bordered by overarching bamboos or tall trees, following the course of the whirling, tumbling, rushing Rio Parahybuna; passing by huge hills of brown gneiss, huge solitary masses, or hills covered with wild, luxuriant second-growth forest, or with groves of coffee-trees; valleys with plantations, scrub, bush, forest, or grass-land; we wind round giddy precipices, and up the cavernous valleys of the river. The road was excellent,



The Fortress Rock (Pedra da Fortaleza) at Parahybuna.

the pace was good, the scenery was picturesque, and the sun, although so bright and hot, was cooled by fresh winds. The road was lively with numerous trains of pack-mules coming and going, and herds of cattle, goats and pigs. The Swiss-Gothic changing station buildings of the road company are very picturesque and in great contrast to the ordinary country buildings. One of these neat-looking post-houses, with its chapel, is situated near the Rock of Parahybuna, the Pedra da Fortaleza, a huge compact mass of brown and grey-coloured gneiss, that rears its hoary time-worn and weather-

stained front 500 feet above the road. The river Parahybuna here makes a sharp elbow. We rattle onwards under the shadow of this massive wall of stone, that throws off puffs of heated air as we pass it. The locality is grim and impressive. On our right the impetuous Parahybuna whirls its turbid waters over great rocks deep down in its cavernous gulley, with a roar and gurgle of waters sounding hollow, and increased by echoes. High above us the Bromelia and Cactus-capped summit of the rock is collecting rolling masses of dark clouds, to increase with their watery contents yet more the old stains of countless washings of countless ages.

As, however, this charming drive has already been so minutely detailed and well told by the able pen of Captain Burton, I shall say no more about it, but hurry on to Juiz de Fora, 2238 feet above the sea, where we arrived in the cool of the evening, at the doors of the hotel of the União and Industria Road Company.

I had been thus far three years before, therefore the novelty of the appearance of Juiz de Fora was not so strange to me as to my companion, for any one arriving there for the first time is greatly impressed with the neat and prosperous appearance of everything about it. Good roads bordered with palms, trim hedges, and neat fences; well-built Swiss-looking *châlets*; the commodious and neat hotel, expressly designed and built for that purpose; numbers of four-wheeled waggon are by the roadside; the people, chiefly German colonists, are ruddy in complexion, and neatly dressed.

There is the magnificent villa and beautiful grounds of Senhor Marianna Procopio Ferreria Lagé, a Brazilian of rare enterprise, pluck, perseverance and determined will: to him Brazil owes the grand União and Industria road, and he it was who turned a wild swamp into flourishing Juiz de Fora.

The air was peculiarly fresh and pure, and scented with the sweet odour of the *capim de cheiro* or *capim gordura*,⁷ a tall, soft, velvety but viscid grass, that grows in masses wherever there has been a clearing, and is supposed to follow the foot-steps of man.

Entering the hotel,⁸ we found reception, music, reading and dining-rooms, excellent bedrooms opening on to verandahs, all plainly furnished with furniture adapted to the climate. In the garden at the rear was a splashing fountain, gorgeous flowers, clumps of feathery bamboos and palms, all in excellent order and arrangement, and all the more enjoyable in the sweet fresh air, the quietness, and the musical splash of waters. A hasty toilette in what was to me, fresh from the north of Brazil, verily a treat : namely, really cold water, found us quite ready for the excellent and well-served dinner provided for us.

In the hotel we found some fellow-countrymen, Dr. M—, a retired naval surgeon, amateur artist, and musician, travelling wherever his mood willed ; he liked Juiz de Fora so much that he was content to remain there, and had no immediate thoughts of leaving ; there were also a Mr. and Mrs. M—, a pair of elderly Scotch entomologists, who had spent several weeks in exploring the neighbouring woods for insects, and had already made a grand collection. There were also several Brazilian ladies and gentlemen, two of the ladies were especially handsome. Very soon we all formed a chatting acquaintance, and became intimate as old friends. What a grateful change was the delightfully fresh atmosphere of the quiet night after the heat of the coast, as we sat in the entrance portico of the

⁷ *Panicum melinis*, Trin.

⁸ In 1876 I had again occasion to live at this hotel for several months. I shall always look back upon it as a charming residence. Now, in 1885, alas ! it is turned into a boarding-school, for when the railway was extended beyond it, it lost the constant arrival of travellers to and from the interior. Still, there are plenty of indifferent hotels in the town.

hotel, watching the fireflies glinting like floating stars amidst the perfumed grasses and plants of the roadside !

Early in the morning a dense heavy mist covered everything, and made the grass and bushes look as though covered with hoar-frost, each leaf and blade encrusted with jewels and frosted silver, but it soon rolled away as the sun rose, floating away up the hill-sides in filmy masses, and disappearing amidst the foliage of the woods. We had to spend a few days waiting for our baggage to arrive and to see it forwarded on, before we started.

The town proper of Juiz de Fora, or to give it its right name, Santo Antonio da Parahybuna, is distant from the hotel about a mile, and has an estimated population of 25,000 inhabitants. Since Captain Burton's visit there in 1867, there were evident signs of progress, building was progressing⁹ more stores and a few factories were established, especially for making a national beer for which Juiz de Fora is celebrated. It is a light, wholesome drink. An indigenous wild plant is used as a substitute for hops in its manufacture, the *Composite Carqueja* (*Baccharis, Nardum rusticum*, Mart.) ; it has long triangular leaves with whitish buds at the angles ; it is an aromatic bitter and antifebrile, and is one of the commonest plants in Minas Geraes.

The baggage and rest of the stores of the expedition duly arrived, but unfortunately they had been sent from England in large, cumbersome cases that could only be transported in bullock-waggons, that will entail a long delay before they reach their destination. In the stables of the União and Industria Company were a number of excellent mules that had been selected for us to choose from ; we purchased four riding-mules, and two baggage-mules to carry our personal effects for the journey.

⁹ A large town-hall has been finished within the last few years, and an Industrial Exhibition was held this year (1886).

The few days at Juiz de Fora passed most pleasingly with our agreeable associates in walks and rides in the woods and hills around. These woods, that with slight breaks, artificial and natural, fill up the valleys between the coast range and the Mantiqueira, are abundantly supplied with orchids of many varieties, principally *Cattleyas*. A labourer can easily collect a cartload of these plants in a day or two in these woods around Juiz de Fora. The commonest are *Cattleya labiata*, var. *picta*, a red-purple flower; *Cattleya granulosa*, Lindl.; *Cattleya Acklandia*: the two latter are brownish with red centre and purple bars on the petals; a lovely grand purple *Cattleya*; a species of *Warneri*; the light-purple petals and dark centre of the *Cattleya Gijas*, Lindl.; and the very numerous common *Cattleya Forbesii*, Lindl., with sap-green petals and cream and yellow-coloured centres.

On one occasion we called on the veteran pioneer, M. Halfield, who proudly produced his youngest child. The old gentleman had married again, quite a young wife, about three years previously. He is the author of the admirably complete and minutely detailed survey of the Rio São Francisco, an immense amount of work executed in a remarkably short time—within one year the survey was made; it forms a standard reference. He was hale and hearty, although near eighty years of age, and served to prove how a man can maintain a vigorous health and a hale old age in Brazil.

At last, the eventful day of our departure arrives, Sunday, the 9th of February, when we may expect to bid adieu to the comforts of civilization.

The man selected to accompany us as guide, servant, and friend—for such a *camarada* really claims to be—is at the gate with the mules, as fine a set of animals as one would wish to see; one, especially, is truly a graceful creature. Antonio, the *camarada*, is a tall, good-looking fellow, about

twenty-eight years old; there is an air of sangfroid and independence about him, that shows he evidently does not think much of his new masters—they are *estrangeiros*, strange "*bixos*,"¹ denizens "*do outro mundo*" (of the other world).

Our first experience of the mules I must enlarge upon, as they are *bixos* that form a considerable factor in our future experiences. As we look at them, there is such a palpable air of latent devilry in them, that within our heart of hearts we, at least I, was not supremely comfortable. Their skins quiver with irritation whenever a fly alights upon them, they stamp impatiently with their natty little hoofs, their tails are whisked to and fro with sharp rapid strokes, their ears move in unison, they glance shyly at one and calculate if one is within kicking range, they snap with their teeth viciously at one another, and lash out their heels and with loud neighs at the slightest provocation. Antonio fetches the trunks, and arranges them in a business-like way on the pack-saddles, tries their balance, and makes it up with odd parcels; when completed to his satisfaction, he places on top a dried ox-hide, passes a raw hide-rope over all, hitched on to a broad horsehair girth, then applies a long pole to the rope and winds it up tourniquet fashion; he winds and winds, as though he was going to turn the mule into a wasp; the mule grunts and staggers, and still he winds. "That's enough, Antonio," we cannot help saying, out of pure commiseration for the animal; but he merely remarks, "*Diabo de burro!*" As the animal expostulates with a kick, he gives yet another turn, and secures the stick by lashing to the hide-rope. The same process is repeated with the other mule. "Antonio! the mules are loose! they will run away!" He looked at us curiously, and, as we thought, superciliously, but made no remark.

¹ The word *bixo*, pronounced *beeshu*, is a most comprehensive term, and is applied to every living thing or strange substance.

After a certain amount of prancing, we scramble into our saddles ; then immediately all the world seems to dance around us—houses, banks, and fences fly about promiscuously, There must be an earthquake, or the earth is topsy-turvy ; our helmets see-saw between our eyes and the back of our heads ; the mules are playing cup-and-ball with us, happily neatly catching us each time we descend ; our personality, we feel, is lost in our clothes, as we sway violently to the right and the left. Suddenly my colleague dashes off to Rio Janeiro, blindfolded with his helmet ; my mule fortunately prefers the opposite direction ; away we go down the hill at a break-neck pace ; the reins seem to be useless encumbrances, one might just as well try to stop a locomotive with them. After it can be realized that I am yet in the saddle, and in the land of the living, I settle down into my seat, and let Senhor Mule have whip and spur, and through the town we go flying. Suddenly the mule stops ; an irresistible impulse prompts me to go on, and continue my journey without him. It is with difficulty that the temptation is resisted, but half-way over his head I decide to remain, and hold his head and neck in a loving embrace. Well, that's not so bad, anyhow, I think, as I get back to my seat. Now the mule is evidently disgusted, and will not proceed. I should like to turn him round, but he will not pay any attention to my gentle persuasions. I should like to try the effect of the spur again, but it is best to leave well alone. I have a certain respect for that mule, and do not wish to disturb his meditations, so take especial good care that the spur does not touch him. I take the opportunity to carefully look behind me ; there is no one in sight, but in front of me a huge herd of cattle suddenly appear round a corner, covering the whole width of the road ; their horns are six feet across, and here is this confounded mule stuck in the middle of their route ; however, at the sight of the approaching cattle,

he starts, brings his ears forward almost with a click like a guardsman shouldering arms, snorts an inquiring alarm and suddenly turning to the right-about, calmly trots back, when we soon meet W—— and the troop.

"Holloa!" he said, "how did you get on?"

"Oh, my dear fellow, I rode on ahead; but, not seeing anything of you, I thought I would quietly ride back, just to see what had become of you."

Antonio now observes, "*Os burros ainda não estão bem mansos*" (the mules are not yet quite broken in).

"How long does it take them to get '*manso*'? Because, if it requires much time, we had better go back and insure our lives, and bring a surgeon with us."

Those dreadful-looking bulls again appear in sight, coming round a bend of the road; the mules all stop, ears well to the front. Antonio calls to them, "*Ora! Estrella, Joaninho, choc—choc—choc;*" but they will not "*choc,*" they wheel round immediately, and a stampede ensues in all directions; "Good-bye, old fellow," I cry to my companion, who is heading for the bush by the roadside. But this is getting monotonous, and in order to argue the point, I apply the butt-end of my riding-whip between the mule's ears, that evidently appeals to his senses, for he at once becomes manageable and quiet. The cattle pass us, the mule remains still, trembling and twitching in every limb, as though flies were tormenting him.

Rejoining my companion, who has also got back to the road, and is alone, I inquire, "Where are the baggage-mules and Antonio?"

"Oh, somewhere in these bushes."

We hear Antonio's appeals to the mules on our right; presently ahead appear the runaways, who jog along with their loads flapping and banging their sides; and now one

can see the necessity of a good brace up. We progress peaceably for some time until we meet a mule troop, when collisions ensue and there is a spurt ahead. To drive these four fresh mules is almost as bad as driving four pigs to market, there is no unanimity of action, each appears possessed of a demon of obstinacy, yet is scared at its own shadow. However, after a while we settle down into a steady march ; it is the calm after the storm.

The country we pass by consists of open, rolling grass-hills, with occasional considerable extents of woods and bush, amidst which many varieties of birds disport themselves—*João de Barros* ; *black anus* ; *hawks*, *Bem-ti-vis*, *cardinal birds*, *canaries*,² *Alma de-Gatos*,³ *parroquets*, *Jacus* (*penelopes*), the white-headed *Papa-arroz*, and *sabias*⁴ the Brazilian thrush. The sun is hot and scorching, and we feel already as though we have had a long ride. It must be remembered that this is the hottest month of the year, and as we jog along easily at a fast walk, the perspiration trickles down our temples and our backs—our clothes feel like blankets ; we feel visibly browning under the fierce glare.

We pass many rude wooden crosses (mementos of fatal quarrels, assassinations, or accidents), and habitations ; small *vendas*, *tropeiros ranchos* by the roadside, and farms on the hills. The road is broad and fairly good for some miles, and we obtain many views of the huge banks and cuts of the Dom Pedro II. Railway, then in course of construction. (I little thought at that time that years afterwards I should be at work on that identical section, building bridges, and laying the permanent way, and be present at its opening.)

As we progress, deep ruts and holes appear and become more frequent, through which we have to splash and flounder ;

² *Hylophilus ruficeps*.

³ Soul of a cat.

⁴ *Turdus Orpheus Brasiliensis*.

their bottoms are a deep, soft, soapy clay in which the animal's hoofs enter with a "squash," and come out with a "pop." These sloughs are nearly always met with where the road is low and passes through forest, the huge overarching trees prohibiting the access of sun and wind, and the heavy traffic of waggons and mule trains perpetually keeps the wet clay stirred up and churned, making the holes so deep, that sometimes détours have to be made through the adjoining bush.

This road is the main route to and from the distant North, and the traffic is almost continual. We meet huge bullock-waggons of primitive but solid construction, spoke-



The old União e Industria Road between Juiz de Fora and Chapéu-d'Uvas.

less wheels, springless axles, the whole heavy and cumbersome; but to see them plunging and heaving in these sloughs like a ship at sea, hauled by the brute strength of from four to twelve pairs of oxen, one can quite understand the adaptability of their construction. On these occasions it is a sight to see the drivers, of course on foot, rush here and there with their long goads, shout excitedly, prod the lagging oxen that plunge forward with many groans, their tongues protruding and their eyes glaring, or with heads well down, "put their shoulders to it;" the splashing of mud and water, the struggles of the animals, the shouts

of the men, and above all the creaking and groaning of the ungreased axles of the waggons,⁵ makes a lively, noisy scene. Or we meet mule trains in lots of seven animals to one driver (*tocador*), all the animals, of course loose, and either spread over the road or in single file; in front is a gaily-decorated old bell-mare or leader, and behind all rides the "*arrieiro*," the farrier, vet., and "boss" of the troop. Then again we meet droves of black cattle from distant Goyaz, animals with huge outstretching horns, fierce of aspect, but whose long journeys have long ago taken out their fire and wildness, and are now tame, patient animals; or we may meet a rich *fazendeiro* with his family on ambling mules, all the riders carrying white or green umbrellas and wearing white linen or brown holland dust-coats or cloaks; behind come their baggage-mules, with black drivers on foot, and a mounted servant in grotesque livery, all top-boots and cockaded top-hat, blue or green coat, with brilliant facings, and a liberal array of gilt buttons.

Our *camarada*, Antonio, knows most of the wayfarers and exchanges salutations with the *arrieiros*, nods to the *tocadors*, and whiles away the interim by whittling a plug of tobacco for his cigarette, or howls aloud a nasal *tropieiros* song. He is generally a long way behind, happy, careless and indifferent to everything; the fresh pack and spare saddle-animals follow us closely, trotting when we trot, or walking when we walk, or try to get ahead of us and sometimes take an exploration of the roadside bush—its density is of no consequence; without any apparent provocation they will sometimes go for a little relaxation, some ahead, some into the woods, whence we hear their packs banging against the trees and scraping through the jungle. On these occasions Antonio is always behind and out of sight; expostulations we find only

⁵ This noise is supposed to stimulate the cattle to pull well together, and if the noise is not satisfactorily loud, the axles are dusted with charcoal to increase the friction.

make him sulky, and he does not sing for a mile or two—even when my companion rates him in choicest “Punjaubee” it has no effect.

In the afternoon, during a heavy shower, we arrive at Chapêo d’Uvas, twenty miles from Juiz de Fora, and our halting-place for that day; a village of one long, broad street, with houses of adobe on each side. What a street it is! and what a dismal abode of dirt, decay, and poverty is the whole village! The houses vary from those with whitewashed fronts, painted doors, unglazed windows, and tiled roofs, to bare wattle and dab grass-thatched huts; all are stained with the weather and mud, and the whitewashed plaster has fallen here and there in patches from most of the houses, leaving exposed the red-brown adobe and grey timber framing; a sea of liquid mud forms the street, extending from the fronts of houses on one to the other side, we flounder through this slough up to the girths of the animals, to the door of the *venda*, above which is written “Hotel d’Aguiar,” pronounced “Ortle;” the animals stand in the mud and we have to spring from their backs into the open door of the hotel. There we find the village store in two rooms—wet goods in one, and dry goods in the other; a pervading mixed smell of dried cod-fish, jerked beef, and kerosene, salutes us. Inside, in front of the counter, there are a few countrymen dressed in cotton trousers and shirts, striped cotton coats, and battered straw hats, bare feet encased in mud and huge spurs.

We explain our desire to the respectable proprietor to put up for the night. He replies with a bow, “*Pois não, meu senhor, faça o favor de entrar*” (Certainly, sir, do me the favour to enter), at the same time opening a door at one end of the *venda*. We enter, and find it is in keeping with its surroundings; the wooden floor is thickly carpeted with dry and wet mud, deposited by the muddy feet of all that enter,

brooms, soap and water, dusters and door-mats are evidently unknown ; the walls were once white with whitewash and gay with panellings of red, blue, and green paint, now ages of dust and cobwebs cover them and hide their pristine brilliancy, and gay festoons of cobwebs hang suspended from the once green lattice ceiling ; a long bare table occupies the centre of the room, and against the walls are a leather-covered sofa, wooden chairs, and benches, upon which are spread the saddles and harness of a few men present, besides various household utensils ; the open, unglazed windows look out on the sea of mud outside ; a few windowless rooms (*alcoves*) lead out of this saloon, in each of which are two wooden bedsteads and nothing else excepting the mud on the floor ; my companion and I are shown one as our room.

He, full of memories of luxurious life in India, looks around with a rueful countenance and evident consternation. I observe that it is a rather nice place. He is speechless, and glances about him slowly, abstractedly, wonderingly. Suddenly he wakes up and exclaims, "Gad, sir, I was never in such a hole in my life, what—a—ha ! ha !—well I—confound it—er, er—is this what is considered an hotel ?—why, it's a pig-stye, sir—a pig-stye !" I endeavour to console him with the certainty that we shall probably yet experience occasions when we shall remember this hotel as an enviable abode, to be thought of with grateful memories.

Senhor Aguiar now enters and inquires if we wish to "*lavar os pés?*" (wash the feet). "No, but we will have a large basin of water nevertheless." A black boy struggles into the room with a large galvanized-iron basin of warm, yellow, muddy water, and a small thin cotton lace-edged towel. The basin is dark and grimy, its original colour is hidden under a sticky accumulation of the deposits of years of feet-washing. It is still raining, and the muddy

river is far off, through wet bushes and trees and sloppy ground. It is suggested to the landlord that he should give the basin a good wipe, and we direct his attention to its sticky qualities. "*Para que, senhor ? isto não faz mal*" (What for, senhor ? this will not do any harm). He evidently thinks we are capricious and full of fads, and looks at us wonderingly from top to toe, then says, "*Sirvam-se senhores ; não façam cerimonia*" (Help yourselves, gentlemen ; do not stand upon ceremony), and then seats himself on one of the beds to watch us plaster ourselves with a fine coating of mud, which is then transferred to the tissue-paper-like towel.

Now an odour of onions, grease and garlic, and burnt coffee prevails in the establishment ; a withered, witch-like old negress, half-clad in tattered, smoke and grease-blackened rags, lays a thick Minas cotton table-cloth, and returns with dishes of boiled beans and *toucinho*, stewed fowl and rice, an indefinable joint, a lump of roast pork, another lump of beef roasted to a cinder, (an island in a lake of clear yellow grease,) a bowl of *farinha*, some lumps of hard dough for bread, two wooden boxes of Guava preserve, oranges, bananas, and Dutch cheese, a few bottles of *cachaça* and "black-strap" (Portuguese wine, *vinho tinto* or *figueira*), plates, iron-handled knives and forks, that have never been polished, and "*jantar esta prompto*" (dinner is ready). Our fellow-travellers are soon in their places ; we are a strange medley : two Englishmen, two Brazilians, an Italian, a Portuguese, and a Frenchman. No time is wasted in idle ceremony, each one of our fellow-guests stands up and helps himself to whatever is within his reach, never mind what it may be ; each plate is piled up ; the knife is first used to chop up and mix the food with the *farinha* into a stiff paste, then it is well-loaded half-way down the blade and the whole dexterously whipped into cavernous mouths. Nearly all are coatless and collarless, unwashed and uncombed, and

perfumed with the odours of travel. But hunger is like unto a roaring lion who seeketh what he may devour. We sought and we found, and were satisfied ; our fellow-guests terminated with a mixed dessert of fruits, cheese, and sweets, then freely indulged in eructations and expectoration, and used their forks for toothpicks.

It rains heavily outside, the sky is a dull leaden hue, everything drips with water, it is all damp, bleak, and muddy ; the rain drives in at the open windows in cold gusts of wet ; we are stiff and tired with the hard jolting, the chairs feel as though their seats were made of tin-tacks set point upwards : we conclude that pipes, bed, and a book are most advisable. At our summons the old odorous black dame again appears and makes our beds. The beds are long sacks of Minas cotton, stuffed with the fresh dried leaves (corn-shucks) forming the sheaths of the Indian-corn heads. They are soft and pleasant, but rustle furiously at every movement ; clean pillows and clean coarse sheets were provided, the only clean things in the hotel. The blackened, dusty walls, the muddy floor, and bare room were not perhaps attractive surroundings by the light of a candle stuck in an empty bottle, yet in the dark we reposed as peacefully as in any London hotel. Altogether there were perhaps not sufficient unpleasantnesses to have made Mark Tapley consider it "jolly."

The mules had been ordered for 7 a.m. the next morning, but 8.30 arrived and still there were no signs of them. There is a mist amongst the trees and a steady drizzle falls, and there is deep mud outside ; the sky is leaden and dark ; the rain sounds a drip, drip, drip, from eaves and bushes, and the air is chilly and damp enough to create a shiver.

Certainly it does not invite one for a morning walk to see what has become of Antonio, but Senhor Aguiar has no one to send ; Mr. W— growls at the delay and suggests that I go.

Well perhaps the mud and muck will be jolly enough, so I find myself creeping along the houses and fences, then wading knee-deep in mud across the street, and get into the woods by a path I was pointed out as leading to the *pasto* (pasture). The word pasture conjures up a vision of verdant meadows, trim hedges and ditches, &c., but here it is slightly different. A scramble up a steep, slippery path through forest, terminates in a bushy hill-top, with tall scattered shrubs and bushes and trees, with the thick, sweet-smelling *capim gordura* in the open patches ; this is the pasture-ground. I hear afar off Antonio's voice, "*Choc ! choc ! choc !—Joaninho !—choc !—Estrella !—woa !—choc !*" &c. After a scramble through briars and sticky grass all dripping with wet, I find him with an *embornal* (nose-bag) of corn, trying to persuade the mules to be caught ; but they are evidently contented with their lot, and allow him to get most tantalizingly near, only to bound off, over the bramble and bush. He told me that two mules are missing, probably gone back to Juiz de Fora.

Meanwhile we continue our chase ; many a run, scramble, and tumble is made before we corner those present, get halters over their heads and fasten them head and tail together. We wade out of the pasture, slip and slide down the steep descent, wade across the mud of the street, and arrive at the hotel, wet, muddy, covered with burrs, and sticky with the viscid grass, but all aglow with health and exercise, and ready for a solid breakfast, no matter what. Yesterday's dinner is repeated with the addition of "*café-au-lait*." Antonio makes a hearty meal, and starts off to Juiz de Fora for the runaways. It is slow work waiting for him, for we must not be extravagant in our reading matter, and growling becomes monotonous after a time, and so does smoking. We sit on the counter of the *venda*, and quiz the countrymen as they come in, and banter *Senhor Aguiar* ; about mid-day Antonio arrives

with the missing mules ; the owner of a roadside rancho had made them prisoners, for having seen us go by on the previous day, he therefore knew they were fugitives.

(Now, in 1885, Chapeo d'Uvas is served by the D. Pedro II. railway station. The station is nearly two miles away ; the road to it crosses a low, flat, muddy land, covered with bush and woods and a very few roças. In 1882, the exportation consisted of 58 tons of coffee, 79 tons of maize, beans, and mandioca, 1 ton of sugar, about 2 tons of dried beef, 240 tons of salt pork fat (*toucinho*), 176 tons of cheese, 286 pounds of tobacco, 125 tons of bricks, tiles, and lime, and 52 tons of sundries, or a total of 734 tons, producing in freight, 11,703\$000 (now, in 1885, about 890*l.*) ; 5885 passengers left, and 5984 arrived, producing 14,359\$000 (1127*l.*).

These statistics will enable the reader to form an idea of the local productions over an area of, say, 100 square miles. This produce may be roughly estimated to be worth about 29,000*l.*)

Our bill at the hotel amounted to fifteen thousand reis, truly a formidable array of figures, but only equal to about thirty shillings.⁶ When we started, the weather was still dull and showery, mists hung about the trees, and thunder reverberated amongst the neighbouring hills. After leaving the village we passed into thicker forests, and stiffer ascents and descents over a hilly country, that shows an approach to an elevated region ; the roadside houses become fewer and far between ; in the hollows between the hills are awful quagmires, through which we splash and flounder, the mules extricating hoof after hoof with pops like unto opening of bottled beer ; the forests are gloomy and dripping with moisture, patches of mist float amongst the more open parts like "*almas*

⁶ In 1873 the exchange was 24*d.* per 1\$000 (1 milreis), now, in 1885-6, it is only 18*d.* N.B. Since writing the foregoing, exchange has risen to 22½*d.* in May, 1886.

d'outro mundo" (ghosts from another world). Patches of open lands with grazing cattle; numerous hurrying, turbulent, yellow, muddy streams; long wooded valleys and hills of forest and scrub, are the chief features of the country, over which hang the grey clouds and mists, so different to the hot, scorching sun of the previous day.

Late in the afternoon we arrive at Mantequeira, a two-storied house, with an adjoining venda and outhouses, situated in a low valley at the base of the Serra de Mantequeira. Around it on all sides rise steep, densely wooded, lofty hills, the rush of falling water is heard everywhere; it is a dull, dark, gloomy, damp solitude in the forest, now partially obscured by rapidly descending clouds of driving mist. We ride into a courtyard covered with the rotting, saturated stems of squeezed sugar-cane; a waggon is in one corner, on which fowls are drying their bedraggled feathers; an old negro, bare-headed, bare-legged, bare-footed, dressed only in a coarse blue baize shirt and short ragged trowsers, stands shivering in a doorway, blanched to a greeny-brown colour with the penetrating dampness.

This place is a Hospedaria, that is, a house where man and beast can be accommodated. A flight of stone steps leads up to the first-floor, from one of the windows of which a man was leaning with folded arms, watching our arrival. As we entered his room, he merely turned his head and looked over his shoulder at us, without otherwise moving, and in reply to our request for accommodation, said "*Pode*" (you can), and resumed his look outside on the misty forest hillsides, then with a sigh, expectoration, and a terrific yawn, he turned slowly round, and with yet folded arms, had a good stare at us.

"I say, friend, are you the respectable proprietor?"

"I am."

"Well, just hurry up and order the execution of a few fowls, and get the feijões on the fire."

With a terrific effort he pulls himself together, has another yawn, enough to dislocate any ordinary jaw, then slowly shuffles across the room to an inner staircase and calls "*José! Maria! Secondinha! Manoel!*" until some one replies "'*Nhor?*' *Venha ca diabo*" (Come here, diabo). "Get dinner and rooms ready for these senhores, tell Manoel to show the camarado the pasture, and send José up with a basin of hot water and pull off the boots of the senhores." Having said and done which, he wearily returned to his window with a sigh, and resumed his occupation of expectoration, and gazing out on the dull, darkening woods around.

It was an old, strongly built house, a relic of the prosperous colonial times, when gold, diamonds, and labour were cheap and plentiful, and agricultural produce very dear. Now it is just the reverse. (Mawe speaks in his travels in 1812 of even then meeting houses that bore marks of opulence and grandeur that had decayed as the gold-mines ceased to work. Wages even in his time were only 600 reis per week, now a Portuguese labourer can earn in Minas 2000 to 2500 per day). The rooms were large and lofty, unceiled, and showing the huge beams that supported the tiled roof. Dust and dirt were not so conspicuous as in last night's abode; altogether a fair enough place for a rough shake-down. The inevitable black boy and iron basin of hot water now appears, not quite so sticky as that of last night, but quite sticky enough.

Although it is the hot season, the air is quite sufficiently chilly, more like a wet summer's evening on Devonshire Dartmoor than tropical Brazil, but we are 2800 feet above the sea. Mr. W—, who, like many another stranger coming to this country (the greater part of which is within the torrid zone),

⁷ An abbreviation of *senhor*, pronounced *en-yôre*.

imagined he would have to encounter the heat of Indian plains or West African coast, and consequently expressed much surprise to find such a pleasant temperature as we then enjoyed, and observed that, if he can always meet with it, it will go far to counterbalance the want of luxuries, and create a rude state of health that will enable us to rough it with light hearts and strong digestions.

Just before dark, I suggested we should go and inspect the contents of the *venda* close by. The owner (a fat Portuguese of a Sancho Panza type), received us jovially, took our hands lovingly in his large, soft, greasy paws, and told us the English were "*homens e muito bons homens*" (men and very good men). After examining the very limited stores of his odorous goods, we espied some long-necked bottles on a distant shelf. Inquiring what they were, he said they contained *vinho*, but he did not know its quality; he had found them there when he took possession of the *venda* from a defunct "*compadre*," but they had no *rotellas* (labels), and were "*muito sujo*" (very dirty), and no one would buy them; he did not think they were fit for "*cavalheiros*." On taking them down we found them to be Burgundy wine bottles, thickly encrusted with dirt and cobwebs; the labels had long since been eaten by the cockroaches. We opened a bottle: result, a capital bouquet and flavour. Chambertin, by the powers! "How much?" "Oh! anything you like to give, say a milreis" (two shillings). It is needless to say we bought the lot. This is not at all an unfrequent occurrence to find some rarely good wines at some out-of-the-way roadside *venda*; how acquired may be a mystery, but the acquisition, as we now happily found, was a fact.

Our dinner did not appear until 8 p.m.; it was an improvement on last night's, and we had it to ourselves, excepting that our host had removed from his window when it became

too dark to see outside, and had taken up a position astride a chair, his arms folded on the back of it, his chin buried in his arms; there he sat during our dinner silently gazing at us. The rain pattered outside, the wind blew in gusts, but we dallied at our dessert over our pipes, treasure trove, and chatted, and thought we were very well off.

Early the next morning we found our host again at his window, shivering in the chilly morning mist, that in the form of a mass of dense white vapour shrouded all but the nearest objects from view; but a glad sight met our eyes in the yard below—the mules, complete in number, munching their corn.

It was a task for our host to leave his beloved window a moment, even to receive payment for our accommodation, ten milreis (about a sovereign); he received it indifferently, sighed, yawned, shivered, expectorated, and returned to his lounge. I noticed the woodwork was quite polished on his perch; undoubtedly he passes all his days there, and must know every tree in sight.

Soon after starting, the road commenced to ascend through grand luxuriant old second-growth forests,⁸ winding round the sides of precipitous hills. Here, down in valleys, in and out, up and down amongst the hills and forest, the road was simply "jolly," or as bad as a bad road can possibly be; all the way the soil is a red-brown clay, with deep sloughs and ruts, slippery, soft, and sticky. It was hard work for the animals, and many a time as we rode on the extreme edge of a precipitous slope, to avoid a deep pool of mud covering the width of the road, I thought we should have rolled down the hills; the mules slipped right and left on the greasy soil, staggered and snorted with fear; and, to add to our troubles,

⁸ Much of this has since been cut down to obtain railway-sleepers that are put alongside the railway at twenty-four milreis the dozen—8' 0" x 6' 8" x 6' 6".

a fierce storm of wind and rain overtook us, half blinding us with gusts of driving rain as we struggled upwards through the deep, soft, sticky mud ; yet along this road is a heavy traffic of waggons and mule trains.⁹

It was really pitiable to see in some places the poor animals toiling through their difficulties ; teams of not less than twenty to twenty-four bullocks are required to drag the cumbersome waggons up these greasy hills and through the deep sloughs.

As we mounted higher and higher, long wooded valleys began to appear below us ; and finally, near mid-day, the rain ceased, and we gained the summit of the road, about 4200 feet above the sea, where the fine views in a great measure recompensed us for our exertions ; for, far as the eye could see, extended a panorama of hills and deep valleys.

Some of the hill-tops were long, rounded, grass-covered summits, like English downs ; on others, and in the valleys, dense, luxuriant forest alternated with scrub.

To look down upon these forests, and upon similar ones in the adjoining provinces, they all appear to be alike, yet every section of them, when examined closely, is different to its neighbour. There are myriads of trees, bushes, vines, palms, ferns, parasites, and orchids, whose numbers and varieties produce infinite changes of arrangement, consequently the most minutely detailed description of any glade, or interior of any part of the forest, would totally vary from another a dozen yards away. Yet, in gazing from a height upon the whole mass, one sees a number and variety of trees that by their conspicuous colour of leaf, or flower, or form, absorb the less distinctive features ; for instance, the tall, slender, hollow-stemmed *Imbauba*,¹ with large peltated leaves, light-green on

⁹ Now considerably diminished by the extension of the D. Pedro II. Railway.

¹ *Cecropia*. There are two varieties of this tree—the *Roxa C. peltata*

the upper and silvery-white on the lower side, is a prominent feature, especially when the passing breeze flutters its leaves in flashes of green and silver ; then there are the grand masses of colour of the purple,² and of the golden flowers, of the Pãu d'Arco or Ipey ;³ the tall, feathery heads of the edible palmetto and other palms ; the dark, small, double, feathery leaves and yellow flowers of the Jacaranda, and of the almost black leaves of certain tall, umbrageous trees ; and against the background of dark-shaded green, appear the thousands of white, grey, blue, brown, red, yellow trunks of all manner of trees. All these are prominent objects that fix the attention above their surrounding neighbours, immense in variety and form, yet by distance forming a homogeneous mass of green verdure. Above all is the blue ether, and white, cloudy background, with perhaps a carrion turkey-buzzard wheeling majestically in wide concentric circles in the air, or maybe a hawk emits a scream as he flies upwards into space. The silence and stillness is alone disturbed by the incessant whirr and whistle of cicadas far and near, sounding like the whistling of a number of express trains.

In these valleys there are jaguars, both spotted and black ; the red puma (*onça assusuarana*) ; tiger-cats ; guara (the Brazilian wolf) ; the matirio, or woodland deer ; tapirs, capivaras, peccares, spotted caviés (*pacas*), agoutis (*cotias*), and smaller game ; of game birds, there are the curassow (*mutum*), jahu (*penelopes*), inhambu-assu (a quail-like species), cardonas (also a species of quail, but only found in the grass-lands). A passing traveller rarely sights any of the animals unless it

and the *Branca C. palmata*. Its leaves and fruit are admitted to be the favourite food of the sloth. The juice of the buds is used as a refrigerant in cases of diarrhœa. The tree is more common to the second-growth woods than to the virgin forest, although I have often seen it in the latter.

² *Tecona curialis*.

³ *Tecona speciosa*.

is an agouti, or a tiger-cat ; to find them one has to go with dogs, and if possible find a salt-lick, and then hunt long and patiently, but they are all there, for one hears constantly of one or the other species being seen or shot. It is, however, very questionable indeed whether for the mere sake of sport the game would be in sufficient numbers to repay the necessarily great exertion and labour required to find them.

Now as we proceed, we find we are entering another land ; the dense mass of forest covering the ascent of the serra has disappeared from view, and in its place we see before and around us, huge, rounded, grass-covered hills, on whose surface are sparsely dotted isolated trees and small bushes ; irregular winding lines of dense capão⁴ fill up the bottoms and creep up the gulleied water-courses of the hill-sides ; here and there are a few scattered arucaria pine-trees,⁵ their candelabra-like branches and rough stems are a novel sight to one accustomed to essentially tropical Brazil. They are the advanced sentinels of the grand and vast pine forests of Parana in the south, and indicate by their presence here our proximity to a temperate climate.

The air is also wonderfully different to the lower forest-land ; there is a brightness and a clearness that creates an exhilarating feeling, despite the now uninterrupted glare of the sun ; the hill-sides are fresh with light-green or greyish wiry grasses ; the roads are firm, and strewn with quartz pebbles ; a fresh breeze full of ozone blows in our faces ; numerous birds whistle and chatter and scream a noisy concert ; even the mules appear to appreciate the change, for the country being open in all directions, a number of grazing mules are sighted on a hill-side near ; ours bring up their long ears to attention, and bray a salutation ; the strangers reply ; our spare mules kick out playfully behind, as

⁴ A clump of forest.

⁵ *Arucaria Brasiliana*.

much as to say, "Here's some fun, boys, come along," and away they go, the baggage animals after them, making such a clatter with their flapping packs that the noise serves to speed them on the more.

Antonio as usual is behind, out of sight. "O! Antonio! Antonio!" we call. "'Nhor," is faintly borne towards us. When he eventually arrives, all hands have to go for a chase across country; there are no fences, or hedges or ditches, it is plain sailing, and the baggage mules are soon brought into the road, but the other two mules, unencumbered with any *impedimenta*, fraternize with the drove of strangers, and give us a long gallop to separate them and get them into marching order again.

The general level of the country descends very slightly from the dividing ridge; it is practically an undulating table-land, with depressions forming the basins of the various streams. This district, and for thirty or forty miles north, is the most important watershed of Brazil, for it gives birth to waters that flow to all the quarters of the compass, to the coast, to the Rio São Francisco, and to the Rio de la Plata system. There are, however, peaks and ridges in Brazil of much higher altitude, as the Peak of Itatia-assu in the southern branch of the Mantequeira, 9980 or 10,466 feet, as it has been variously estimated; Monte Pyreneos, near Goyaz, nearly 9000 feet, and Itacolumi, near Ouro Preto, 5860 feet above the sea; yet they do not occupy so highly important a position in the distribution of waters as this district around Barbacena.

In the main valleys we cross many streams by wooden bridges, approached through more seas of mud whenever the road traverses the woodlands of the bottoms. Finally, on arriving at a summit of one of the highest hills, we sighted in the distance the city of Barbacena, its white houses and

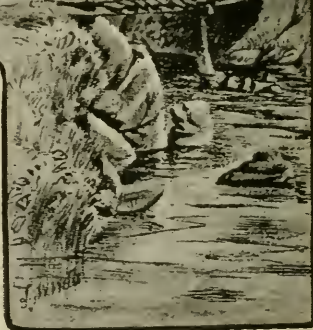
church towers conspicuous amongst the surrounding green hills and valleys, and looking in the distance, as my colleague remarked, like a town in Hindoostan.

As we ride on, we feel particularly happy, as though we had inhaled laughing-gas; one wants to shout, gallop, or



The high-road to Barbacena near the summit of the Mantequeira Hills.

do something unreasonable to express the feeling of elation that he irresistibly experiences. On many an occasion afterwards, I have noticed the same



effect on coming from a forest district into campos land; undoubtedly the sombre shade of the trees does create an imperceptible depression which is only realized when one emerges from the dark, silent shades, into the bright green grass, sunlit hills and valleys, and fresh breezes of the campos, brilliant with flowers and bright-plumaged birds.

Barbacena is built upon the summit of hills, and commands extensive views of the surrounding country. The approach to it is up steep roads of yellow clay and quartz pebbles, with deep ruts and rain-water gullies, and ledges of stone to prevent the waters quite carrying away all semblance to a road; as we ascended, a sharp shower met us, and rapidly turned the road into a series of small cataracts of water that would soon have made deep excavations were it not for the transverse slabs of stone. Wattle and dab huts, small adobe houses and a few larger ones, line the way on each side, the houses have fenced or walled compounds, the huts simply adjoin the bush of the valley.

Arriving on the top we leave the suburbs behind us, and enter upon the painfully paved streets of the old city. As we clatter over the round, cobbly stones, the noise is almost startling, and wakes up echoes in the silent streets, and attracts to many doors and windows the heads of the inhabitants, old and young, male and female, to see the "*gente de fora*" arrive; otherwise one might almost imagine it a deserted city, the rain having probably driven away the few customary wayfarers. Some of the houses are large, with glazed windows, pantiled or colour-washed walls, projecting eaves of red tiles and brick *calçado* (pavement) in the foot-way in front. In their rear, extending down the hill-side to the valley below, are large gardens of grand trees, palms, fruits, flowers, and brilliant-foliaged plants; amongst the latter, the brilliant, fiery-red bracts of large poinsettias are conspicuous. From the eaves project huge grotesque rain-water spouts, that now eject into the road copious streams of water from the roofs of the churches and the large and the small houses; all down the streets one sees a steady outpour, and hears the splash of water. There are other more unpretentious houses and stores, even to houses with unglazed windows,

and whose whitewashed, plastered fronts are weather-stained, or from which the plaster has fallen, leaving patches of the adobe and framework visible.

Finally, we arrive at the Hotel Barbacense, an old house in the Rua do Rosario, opposite the mean chapel of that name, and right glad are we to do so, for we feel as though we have been riding for ages instead of only three days ; we were young and inexperienced in the "devilries" of mules, and were, moreover, not yet "case-hardened." Let any one try it for the first time, how long the days appear after the first day's ride, how hot the sun becomes, somehow it appears to concentrate its rays down one's back ; we get tired, stiff, and sleepy, only to be thoroughly aroused when the mule shies or starts, and thereby causes tender thrilling emotions that make one sigh for the oft-depicted luxury of palanquin travelling in India, or think of the comfortable country roadside inns at home to welcome a traveller at the end of a long day's ride.

A stone staircase leads from the street into the middle of a large, bare room of the hotel, whose windows look on to the street ; two small side-tables, a cane-seated sofa, some cane-seated chairs, and one rocking-chair, a large brass lamp, some tawdry-coloured framed prints on the wall, constitute the furniture. At the back is another larger room looking on to stables and yards, odorous with garbage, refuse, and pigs.

Each of the bedrooms contained only two beds, a basin in an iron stand, and two chairs. This is "the" hotel of the city. Years afterwards, in 1882, with the D. Pedro II. Railway carrying passengers from the city in one day, I found it much the same, with the exception that it had changed its name to "Hotel Novo York." With good health and appetite, and a not too fastidious taste in furniture and clean floors,

a traveller will be able to survive a few days' residence—in any case a visit to here, and to the near town of São João del Rey, is well worthy of consideration. The objections are, a long, hot, dusty railway journey, and rough, coarse fare at what are called hotels. The inducements are, very fine scenery from the railway; at Monte Marias, Barbacena, exceptionally extensive views over a vast panorama of innumerable hills and valleys, grass-lands and forest, and the blue ridges of Serras, fifty miles away; at São João del Rey a picturesque town and buildings; old mining works; the strange and beautiful forms and colours of the rocks, ravines, and hills of the Serra das Boas Mortes; the grand open country all around; the view from the Serra top; and both there and in Barbacena is the glorious air and climate that alone is sufficient to almost resuscitate a dead man; while subjects for study for an artist, botanist, geologist, and zoologist abound in every direction.

However, our Boniface now addresses us, "*Oi! jantar está prompto*" (Look, dinner's ready). At the table we find a few men already seated—all travellers except one, a white man, dressed in a long, double-breasted frock-coat, &c.; he particularly struck our attention by his appearance: a bald head, well-formed features, great melancholy eyes, and a full long, dark-brown beard; his conversation and remarks showed him to be a man of education. Suddenly he puts down his knife and fork, and stops in the middle of a sentence he was uttering, rises from his chair with a low bow to the company present, and apologizing with a "*com licença*" (with your permission), he proceeds to a corner of the room, and there quietly inverts his position by standing on his hands and extending his legs upwards, and for some moments looks at us solemnly, without moving a muscle. It is a curious sight to see this highly respectable party upside down, his long coat-

tails hanging about his bald head and melancholy physiognomy ; but he soon recovers his proper position, and returns to the table quietly, solemnly, and without a word of observation. To say we were astonished would hardly express our surprise ; we all followed his movements with wondering eyes and dropping jaws, and when he eventually seated himself and proceeded with his dinner as though nothing had happened, roars of hilarity, partly with the surprise and partly at the sight of the ludicrous appearance of our long-coated friend, broke from the assembled guests. The landlord tapped his head in a significant way and winked, indicating that the senhor was not quite sound in his intellect. He never omits going through this performance in the middle of every meal, but he is perfectly reticent as to what his motive is for doing it. Eight years afterwards I found him still living at the same hotel ; he had abandoned his mania for standing on his head, but was often otherwise eccentric in his actions.

The other people at table are traders and farmers and arrieros of mule-trains ; they are freely soiled with the stains of travel, unwashed, and with hair unkempt ; only at night when they retire, about 8 p.m., will they bathe their feet in warm water ; in the morning, they will wet their face with a very little water, expectorate freely in any direction, and they are ready. To *pentear* (comb) the hair is a very fastidious action, only done on great occasions, or by members of the upper classes.

Some new arrivals now appear ; there is a clank of heavy spurs and the stamp of heavy boots coming up the staircase, then the strangers clap their hands and call, "*Ó de casa,*" an untranslatable sentence, perhaps rendered by "Holloa there! anybody at home?" Then ensues a long, far-fetched sound, something like the caw of a hen preliminary to her cluck-cluck—that disgusting sound we all know so well in Brazil ;

everybody does it—enjoys it—could not live without it ; it is part of the national life,—free and unrestricted expectoration, untrammelled by foolish prejudice or consideration for any one’s nervous susceptibilities. It is almost like yawning—it is so catching that our friends at table echo their caw immediately. The new arrivals look at us curiously as they pace the room with the walk peculiar to a man in top-boots, and all regardless of the mud of them dropping in little patches on the floor. It is evident that they are not habituated to the splendours of the grand Hotel Barbacenense, for they mutter to one another, “ *Muito luxo ! muitas coisas ! isto não é para pobres como nós* ” (What a swell place ! this won’t do for poor people like us). “ *Vom’ embora,* ” (*vamos embora*) (Let’s be off). Soon the jingling, stamping, booted, and poncho’d visitors retire to seek more plebeian quarters.

After dinner, as we lounged in the windows, looking up and down the long, melancholy-looking, silent street, our attention was attracted by the “Rule Britannia” played on a concertina in an adjoining two-storied house, in the balcony of which we noticed two good-looking young women, apparently foreigners. Inquiring of our landlord for information, he informed us that it was a family of itinerant hand-bell ringers, who were giving performances in the town.

Whilst meditating upon the strangeness of their calling in such a place as the country towns of Brazil, a very horsey young man entered and addressed us as follows :—

“ You’re English, ain’t yer ? ”

“ Yes.”

“ Well, I’m glad to see yer, it’s a treat to see a Henglish face agin, an’ ’ear a Henglish voice : blow the lingo of these ’ere black chaps, I say, ’tain’t fit for a decent white man to talk. Well, gents both, I’m werry glad to make your acquaintance, and ’ere’s my ’and, and the old man sends to say,

that if yer like to step round, he and the gals 'll be glad to see yer. Don't stand on no blooming ceremony."

As the prospect afforded a probability of meeting some queer specimens of our countrymen, we concluded we would accept the invitation, and while away an hour.

"Well, Mr.—"

"Joe Smith⁶ is my name."

"Well, Mr. Smith, please convey our thanks to your worthy parent and the ladies, your sisters, we presume, and say we shall be pleased to accept the kind invitation."

"That's right. I see yer ain't proud, an' ain't got no blooming hairs about yer; and ye'll like the old man too, 'ees one o' the right sort. As to the gals, why, they're gals, an' gals ain't never no good anywheres. Will yer come and 'ave a drop of beer now?"

"No, thank you."

"Oh, come along, I'll stand treat; or I'll toss yer for a couple of bottles, that won't 'urt yer.—Oh well, if yer won't, yer won't, I suppose."

The polished young Mr. Smith then retired, and eventually we betook ourselves next door, where we found indeed many opportunities for musing upon the vagaries of British character, but if I go into details perhaps "Mr. Joe Smith" would be too certainly identifiable.

Next morning we started early for a long walk down the hills and into the valleys, to get a swim in one of the many streams. The walk was very delightful; small trees, and shrubs, and flowers diversified the monotony of the grassy hill-side, whose green surface is further varied by the red and coloured soils of landslips and subsidences. As we walked along I made a collection of wild flowers with the object of finding out how many varieties I could collect in the walk of

⁶ I have baptized him Mr. Joe Smith in place of his right name.

about two miles. Upon counting my collection I found I had gathered thirty-eight different species of flowers, without going out of my way for the purpose. The stream in which we had our swim was a small rivulet trickling over boulders, steps, and slabs of rocks, leaving many pools of deep, clear water. The low, shelving banks were covered with flowers, shrubs, and ornamental grasses and ferns.

During the day I called on the veteran traveller Senhor Pierre Victor Renault, French Vice-Consul, Homœopathic Physician, and Professor of Mathematics, Geography, and History at Barbacena. Here I was shown many interesting specimens of minerals and entomology, *bric-à-brac* and curios; and in his excellent garden, pinks, heliotropes, gladioli, verbena, violets, roses, apple, pear, plum, peach, and apricot trees, strawberries, and raspberries, and finally, a grand collection of ferns and orchids, that he has obtained by exchange from many other tropical countries. He had then been in Brazil thirty-eight years, and when I saw him again on several occasions, and eight years afterwards, he was yet hale and hearty.

In the afternoon we ascended Monte Marias, a lofty, rounded hill, about three miles from the town. Since our visit a zigzag road has been made up its sides on the occasion of an imperial visit a few years ago, but even without it we had no difficulty in riding up to its summit. It is not a prominent object in the landscape, being not more than a few hundred feet above the adjoining ridges; yet, rising as it does from a base that constitutes in itself the culminating ridge of the country, at a great elevation above the sea, it necessarily enables one to obtain a wonderfully extensive panorama of hills and valleys; so distant is the blue misty horizon that the farthest ranges are difficult to distinguish from the light broken clouds near the

sky-line. It is like looking down upon a world, an uninhabited world ; not a single homestead or farm is visible, for the neighbouring hills shut out from sight Barbacena and its suburbs. The expansive view seems enormous, yet it occupies space insignificant on the map of Brazil. In some places the clouds pour forth their waters in long, faint, grey lines of vapour, in other directions the passing shadows of clouds turn to dark shades the grass-hills and wooded valleys below ; the glorious atmosphere, a fresh cool pure, transparent ether, laden with sweet-gathered perfumes, makes one envy the turkey-buzzards as they sweep round in immense circles, apparently without an effort, yet passing swiftly over great distances in a few moments. The hill-top is naturally gravelled with quartz pebbles, and entirely devoid of bush or trees, and carpeted with thin tufts of grey wiry grass and small woolly-stemmed flowers. Away below us in the near neighbourhood are the valleys of the tributaries of the Rio das Boas Mortes, separated from each other by rounded, irregular ridges and isolated heights that extend in all directions—hills, ridges, and valleys, without order or regularity, a mass of green billowy undulations ; the rifts up the hill-sides and valleys between are often thinly wooded with dense low woods. A most prominent feature of the scene are the numerous landslips or subsidences, “barrancas,” huge cavities, rounded natural excavations, glowing in the sunlight with an infinitude of tints and forms, dark-purples, green, yellow, snowy-white, blue, violet, rich reds, and dark-browns, arising from a variety of chemical combinations ; the surfaces of these slips are jagged and irregular, full of spires, pinnacles, stairs, cavities, and domes, and down the centre is often a trickling streamlet, the original cause of all these great hydraulic washings.

The soil of these hills, where not covered by capões⁷ or

⁷ The word *capão* is the Portuguese for a capon, but in this case it is

clumps of trees, is apparently very sterile ; it is only covered with thin tufts of wiry grass and layers of quartz and other pebbles, and despite the frequent rains, is devoid of bush or trees ; yet wherever the surface drainage has washed out water-courses in the hill-sides, there trees or bushes or many flowers accumulate in the collected humus and moisture. The annual campos fires that occur every August, destroy all young trees unable to resist it, leaving only such trees as are found in the Cerrados, which can equally resist fire and water, cold and heat, damp and drought. It is well known that botanists and travellers do not agree about the original clothing of these campos ; some believe that they were always barren, others that the land was once covered with forests. Personally, I believe the former to be the case in these natural campos regions, for I eventually found in Northern Minas, Bahia, Goyaz, Maranhão, in slightly inhabited districts, even more barren campos than these of Barbacena, especially in some parts of Goyaz, where the surface consists of a dense matted covering of tall coarse "Agreste" grass ; and no tree or a shrub is visible for miles around. In Pernambuco much of the forest has been cleared and turned into pasture-lands, but there the soil is vastly different, and trees and palms easily grow again wherever they are permitted : those districts are in fact only artificial campos.⁸

We would gladly remain to see the effect of sunset, but certain material cravings demand our presence elsewhere.

derived from the aboriginal Guarany *Caïpoám*, an island, that well describes these island-like clumps of forest surrounded by grass-lands.

⁸ Before finishing with Barbacena it may be as well to add that now, in 1885—it shows little change to the description of it by Captain Burton in 1868—there is now a railway-station and a few new streets around it, otherwise its knobbly, silent streets, its freshly painted and its old, dilapidated houses are the same. Even the church of N. S. da Boa Morte that was moving, according to p. 85, v. i. of the "Highlands of the Brazil," still continues to move, i.e. is yet being finished. Barbacena has for many years been a central emporium for the traffic of a large area of

A splendid canter over the breezy hill-tops, and a clatter through the sleepy town, brought us back to the "Grand" Hotel.

Minas, especially of imported salt. In 1882, 15,933 passengers departed and 16,343 arrived. The goods traffic consisted of—

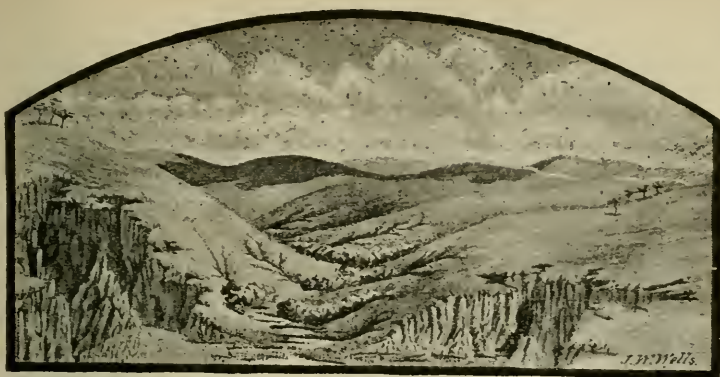
	Exportation.		Importation.	
	Metric tons.	Kilos.	Metric tons.	Kilos.
Coffee	—	—	—	—
Cereals, maize, beans, mandioca, rice, flour .	270	363	123	643
Sugar	110	459	136	090
Rum and other spirits	8	303	19	695
Dried beef		118	88	060
Salt	122	436	124	983
Salt pork (<i>toucinho</i>)	191	345	20	664
Cheese	27	265	1	375
Tobacco	66	690	4	491
Goods manufactured in the country . . .	191	612	37	328
Lime, tiles, bricks, &c.	287	759	107	374
Timber	—	—	22	159
Coal	—	—		500
Charcoal	—	—		500
Cotton goods	—	—	1335	801
Agricultural implements	25	289	19	936
Dried and salted hides	21	593	3	488
Sundries not classified	199	794	401	544
Total	1433	tons	3567	628

Freights 152'2988 050

Passengers 81'9098 900

Total 234'2078 950 = £17,566, at 18*d*.

These statistics show the exports and imports not only of the country near Barbacena, but also of the districts far away in the north. It will be seen that cotton goods and salt are the main items of the imports, and wheat flour forms the major part of the imported cereals. The exports indicate the nature of the local productions; there is no coffee, and but little sugar, for what figures in the list is what has been received by railway and sent to other localities. Pork, tobacco, lime, pottery, maize, and beans are the chief productions.



The barrancas or canyons of the Campos near Barbacena.

CHAPTER III.

FROM BARBACENA TO SÃO JOSÉ.

The outskirts of Barbacena—On the road—At Carandahy—An industrious black and his wife—The cool temperature of the highlands—A beautiful country and rough roads—Rough quarters—A new kind of tea—Carrapatos—The country lamp of castor oil—The Serra d'Ouro Branco—Congonhas do Campo; its curious chapels—An old mining-centre—An early morning's walk—The passage of the Serra and its incidents—A range of iron—Magnificent scenery—A perilous descent and a rugged road—First sight of the Parãopeba—The poverty-stricken village of São Gonçalo—Evidences of former prosperity—A colleague and his rough quarters—A sick mule—First sight of our work to do—Vestiges of gold and diamond mines—A valley of human poverty and natural wealth—São José—More colleagues—Troublesome visitors—A curious deer hunt—The muddy Parãopeba.

OUR baggage has finally arrived in the German-looking four-wheeled waggon common to the União e Industria road. The stores, implements, &c., are transferred to the heavier, stronger, but more cumbersome native bullock-cart, to be transported over rugged mountainous roads and paths, through

deep sloughs and along corduroy roads, to their destination on the Rio Parãopeba. We remained until the 16th February to fairly see the train of waggons actually get under way, for we shall soon get ahead of them, as they do not travel more than eight to twelve miles per day.

In the meantime, we have "done" the city and its neighbourhood, at least as much as we require of its churches, its streets of cobbly stones and ruts, silent houses and sleepy stores, and its hills and valleys around. In one of the stores, however, we made an acquisition of some cases of excellent Edinburgh ale, that the owner could not dispose of as "*cerveja inglesa*" (English beer), because the label was unknown: we purchased the lot at six milreis the dozen (about twelve shillings), less than half the usual cost.

Close to the hotel, the road makes a sharp descent to a valley¹ below, deep in mire, traversed by a stream that is crossed by an excellent bridge, and then on through a broad lowland, passing several large houses, farms, huts, and tropeiros ranchos, all embedded amongst trees and bush. For three or four miles we struggled through deep mud, that required all our activity to keep our seats, as the animals plunged, slipped, and floundered over the ruts and deep pot holes; and the air was extremely close, hot, and humid. Many mule-trains and bullock-waggons were encamped on these outskirts of the town; in many cases the men were celebrating their arrival in *batuques* (*fandangos*), at roadside huts and vendas even thus early in the morning. Despite the execrable road, there is a large and continual export traffic from up-country, of *rapadouro* (compressed sugar-bricks), *cachaça*, maize, beans, *farinha*, hides, tobacco,

¹ The railway now crosses this valley by a huge bank and a lofty stone viaduct of four arches.

&c., and a return importation of chiefly salt, with hardware, iron, crockery, Manchester goods, and general groceries, paraffin oil largely figuring amongst the latter.

Further on, the road ascends from the jungle and bush, and wet clay soil of the bottoms to higher ground and firm roads, along ridges of hills covered with a spare vegetation of low scrub and grass, bright and breezy with the fresh, pure air of the campos that stretches so far away in winding valleys and rolling hills, riven by the canyons so picturesque in form and colour. The road and country-side was lively with many screaming, chattering, and chirruping birds, and multitudes of brilliant butterflies settled on the borders of every pool of water in the road. "Termite" hills and armadillo-holes were numerous, the former often six feet high, and the latter appearing sometimes even in the road, that really consists of a number of tracks more or less parallel, broad or narrow, that follow the direction of the route; of course there has never been any macadamization or drainage or other work to make a road beyond the employment of the billhook and axe, followed by the hoofs of animals and the wheels of bullock-waggons.

As we progress the country shows a more wooded appearance, for we pass alternately through glades of woods and open grass-lands; but very little cultivation is seen in all this diversity of woods, water, grass-hills, and valleys. The grass-lands do not afford good pasture, as the soil is very sterile and the grass thin and wiry, interspersed with many small flowering plants, *befarias*, dwarf ground-palms, and the English-looking bracken.² The woods are not productive of large trees, except here and there where the roots of some have found a well of moisture and rich soil; then they shoot up above their fellows, outstretching their branches

² *Pteris aquilina*.

in a wide, protecting kind of way, and form prominent objects in the landscape; and from them hang the long filmy lines of the parasite, *Barba de Velho* (old man's beard), with long ropes of vines that swing in the breeze the hanging nests of oriole birds; on the branches themselves (often withered by the load of life-crushing parasites), are bromelias with flowers of several colours, crimson, gold, vermilion, orchids of limited varieties, various parasites, mosses, and many-coloured lichens. These boughs are the favourite perches of many hawks, that swing off into the blue ether with a cat-like cry, as we ride by.

About 3 p.m. we arrive at a roadside cottage, with a small store attached to it, opposite to which is an open *tropeiros rancho* (shed). There are no more habitations immediately near, and it shows on a board at a corner of the cottage wall, No. 1, Rua do Commercio, Carandahy. If it is the nucleus of a new village, it is admirably and picturesquely situated on the brow of a hill commanding long vistas of far-stretching valleys, that terminate against this hill in a *cul-de-sac*. Farther on, at the foot of the hill, after passing a low, flat extent of ground, the road crosses the Rio Carandahy by a wooden bridge.³

Our hosts were a well-to-do, and consequently industrious,

³ In 1881, I found that a number of houses and vendas had been built on this low ground. The site was execrably chosen, for the whole of the open space around the houses was one uninterrupted sea of deep mud, through which we could only pass by keeping close to the houses. The approach to the bridge was a sight to see; but it had to be done, and done it was. But what a struggle! The mule, with starting eyes, distended nostrils, and quivering flanks, lurches, sways, and plunges frantically in the deep tenacious mud. And yet this is the main road to one of the well-built stations of the splendidly constructed D. Pedro II. Railway, on which neither labour nor expense has been spared to make a really first-class railway, complete in every modern appointment. The traffic receipts of this station in 1882—then the last station of the line in traffic—was considerably more than those of Barbacena.

black man and woman (his wife, as he proudly informed us, married in all due form by the priest). The cottage, built only of bare adobe, unwhitewashed and unpainted, yet looked clean and comfortable; and the blacks made excellent hosts, doing what they could to give us satisfaction, and paying intelligent attention to our request for a minimum quantity of grease and no garlic in the dinner, and eventually served us with a capital plain country dinner, patiently waited for and duly appreciated. Although this season corresponds to the early autumn, yet it was sufficiently cold at night on this high, breezy hill, to make a rug a welcome addition to the thin coverlets of red cotton usually provided. The thermometer registered 62°.

In the morning the atmosphere was clear and bright, but the valleys below were shrouded in white mist, looking as though filled with snow, gleaming in ridges of light and shade, as the rays of the early sun appeared on its surface. These early departures are most enjoyable; the air is fresh and keen, the sun is low and sends long lines of light and shadow across the scene, making it so much softer than in the glare of day; and the rising mists are ever an interesting subject to watch as they drift and roll away, distorted and shattered into the tree-tops, or sweeping up the hill-side in masses of white fleecy clouds.

To-day we ride through a beautiful country, wooded in the lowlands, grass and scrub in the highlands; the murmur of running water is continual, yet in all these square leagues of land how few and far between are the homesteads. Occasionally one passes a large building with outlying sheds and huts, the fazenda of some local magnate, who probably owns many square miles around.

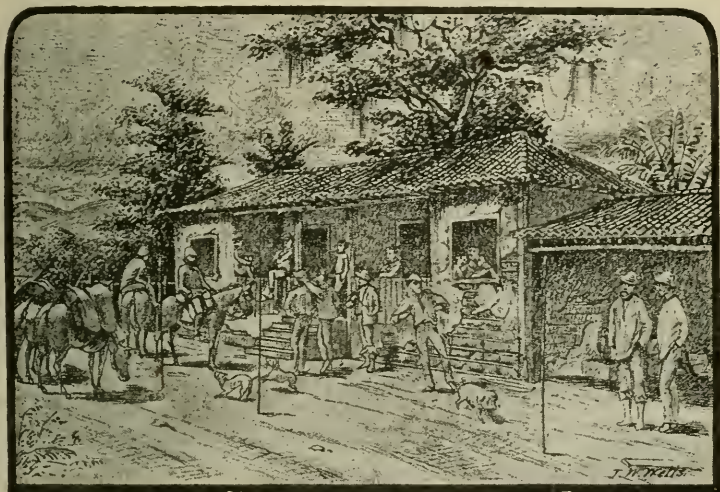
These are the districts near the railway, that should be colonized and developed, and not the far-off provinces of the

interior. For if at first sight, the apparent sterile soil of the campos is repellent to colonists, yet there is plenty of rich well-watered woodlands; and I believe that the campos, with proper irrigation from any of the numerous streams, could be made to be fairly productive. The climate is magnificent, and fevers, or any endemic diseases, are unknown.

On the road we now meet but little traffic—a few countrymen on horseback, or rarely a bullock or mule-train, for we have left the main route to the more wealthy districts farther to the north-west—Rio das Velhas, Diamantina, Ouro Preto, &c. At Carandahy we had crossed the river, and turned on our course to the left, out of the main track. Yet even with the diminished traffic, the narrow paths through the woods are often and often deep holes of mud or choked with bramble and fallen tree-trunks. As we notice some of the worst places, and think of our bullock-waggons that will have to drag through them all, it almost makes one despair of ever again seeing our effects! yet, brutally heavy and cumbersome as are these waggons, they look comparatively small behind a long line of twenty-four bullocks, whose collective strength is equal to a power capable of raising 126 tons one foot per minute, and that should be sufficient to drag any waggon out of any hole.

As one notices the numerous rivulets that spring from the right and left of the ridges that dovetail into one another, it is interesting to speculate on their future course and picture to the mind's eye, as they flow onwards north, or south or east, how they will receive many another streamlet, until the united volume unites with other and maybe larger streams, and then flow on for thousands—yes, thousands of miles, placidly or tempestuously, through vast unexplored, or, at least little-known regions, (especially to the south,) to their final outlets into the Atlantic, amidst the shipping of the River

Plate in the south, or through the vast primeval forests of the Rio Doce to the east, or hurling over the grand cataracts of the Rio São Francisco of the north. Really it is very suggestive of man's life—how slight obstacles or causes at the commencement, which he may be helpless to control, may influence and direct his after course through life, when, as he acquires manhood and strength, he goes tempestuously on-



The roadside inn at Banderinha.

wards, battling with the obstacles of his circumstance-directed career ; or, when things go quietly, how easily it is shaped by the smallest influences—as the river, when it winds over a plain, turns and vacillates, but ever flowing onwards to its final end.

In the afternoon, Antonio brought us to Banderinha a small roadside farm and inn as our stoppage for the night. Evidently our lines had not fallen in pleasant places ; a large open space of bright red soil, in which were stuck many poles for fastening the mule troops, led from the road to the side of a

wretched-looking place; a long tiled roof covered the building; at each end were rooms flush with the front, between them was an open verandah covered by the roof and closed in behind by other rooms; the walls had been originally plastered and whitewashed, but the plaster had fallen away in many places, leaving bare, ugly patches of adobe visible. Several lounging, listless loafers are in the yard; one, with gun and game-bag, and mongrel skinny dogs, has evidently returned from a prowl in the woods near; gaunt pigs wander by gruntingly, and the curs yelp furiously; at the windows are numbers of whitey-brown, brown, and black women and children, giggling and ready for a stampede if any one speaks with them. Antonio tells us there are no other better quarters near—and this place, moreover, laid itself out for a *hospedaria*.

We found we might expect something in the form of dinner and a place to sling our hammocks, and were shown as our bedroom, a kennel with walls and rafters blackened with smoke and accumulations of dirt and cobwebs; the plaster had long since disappeared from the walls, the earth-floor was littered with broken harness, old boots, ox-hide ropes, dust, and rubbish; in a corner stood a dilapidated old wooden bedstead, on which, after much tedious persuasion, our hosts were induced to make up a bed for my companion, I preferring the less-doubtfully-clean hammock. The messes of beans, stewed fowl, rice, and pumpkin were in course of time, about 6 p.m., duly served up in the family plate, i.e. the earthenware bowls in which the various delicacies had been prepared, and placed on the table upon wisps of straw. As we sat on benches around a table in the verandah, all the occupants of the house, man, woman, and child, seated themselves around us on benches, or lounged against the walls, or stood in the doorways, hands in pockets, limply reclining,

silently staring, and freely expectorating. This was my companion's first baptism of fire, and, as I told him, the sooner he can get accustomed to it, the better ; there is no alternative but to consider it jolly, and one of the delightful episodes of "wild adventure in Brazil." We alternately joked and spoke seriously, but our observations were unregarded by the stolid starers around us, until we made complimentary observations on the coloured, squalid houris of the group, that sent them off giggling indoors, whence we heard their repeated shouts of laughter. As to the men, in answer to our inquiries for localities, it was always given with a turn up of the chin, and "*É perto ; poueo distante ; alli ; não he longe ; aco lá*" (It is close by ; little distant ; near here ; it is not far ; over there); really about as reliable as if they had enumerated an uncertain number of leagues, as two or three leagues ; or *uma leagua grande*, or *uma legua e um pedaco* (a long league or a league and a bit), that may mean any distance between four or twelve miles.

Mr. W—— now expressed an insatiable desire for tea. Now the Portuguese word for tea is *cha*, but in Minas, *cha* is employed as a term for an infusion of anything, as *cha de Congonhas* (a tea made from the indigenóus *Ilex Congonha*, a species of maté), or *cha da India* (China tea), or *cha de lorangeira* (orange-leaf tree or infusion). I expressed my opinion that it would be impossible to find tea in such a house, but he was determined to try. Consequently when he asked for *cha*, the giggling hostess inquired what kind of *cha* ? "Why, *cha* of course, *cha ! cha ! Entende ?*" I held my peace as the poor, puzzled woman withdrew, curious to see what she would bring. In half an hour she returned with a tea-pot and cups and saucers. "Ah ! my dear fellow, you never know what you can do until you try," he said, as he poured it out. "Hulloa ! it's rather weak ; hum ! it smells

funny." Tastes it. "Why, what in the—Confound it, what vile decoction is this?" "*Oi! venha cá.*" "This is not *cha*." "*Sim senhor*, it is." "Oh! you abominable woman to stand there and tell me to my face that this is *cha*." "*En'hor sim, é cha de laranjeira*" ("It is, sir, it is orange-leaf tea"). A hearty laugh followed the explanation, and the *cha* was found to be palatable, and certainly a cooling and refreshing beverage, and is largely used by the country people as a febrifuge.

Soon after turning in for the night, my companion, who had been very restless for a long time, now energetically arose with strong asseverations that he believed the place was alive. I began to notice also sundry tantalizing creeping sensations that reminded me of parts of Pernambuco. I suggested at once *carração*, and truly, an examination showed that we were carrying on our persons several of these pests; many were yet prospecting for pasture, others were sinking shafts in our flesh; in the latter case the insects are difficult to pull off, it is then necessary to advise them by the help of the flame of a candle, hot pins, nicotine from a pipe, *cachaça*, hot water, &c., to retire of their own accord, for they become so fond of one, that they would rather leave their head and proboscis in the flesh than be torn away by force from their cherished friend, and leave a memento of their sorrow which will rankle in him for many a long time, and create perhaps a troublesome wound. With time and patience we freed ourselves from our visitors, who came to *comprimentar* us so savagely.⁴

⁴ Messrs. Spix Martius and Pohl name this variety of the *carra-pata* "*Ixodes Americanus*." St. Hilaire bestows upon the smallest variety, the *miúdo*, "*Ixodes Collaris*." There is also another variety equally common, the *vermelhão* that apparently has not been classified. Gardner believes that they are all one species that varies according to the seasons. It is certain that they have three species of torture to inflict. The big ones sink shafts into one's flesh and firmly

This proved to be but the commencement of a long experience of these insects, and the reader will yet be troubled with them as we were. It would be hard if one could not pour out his off-repeated woes to sympathizing ears.

I thought as we lay in that squalid blackened room, with the dim light of the iron castor-oil lamp rendering the blackness only blacker, that a casual at home would consider himself very badly treated if he was shown into such a domicile. The lamp is a feature in itself, and as it is found all over Brazil wherever the castor-plant grows, it may be worth describing : it consists of a shallow round iron dish, three or four inches in diameter, half to one inch deep, with sides sloping inwards ; one edge is bent outwards in the form of a lip or spout, a curved piece of flat iron is riveted to the sides opposite the spout, and forms a hook to hang to a ring in an iron spike that may be pushed into any part of the adobe walls ; the dish is filled with coarse thick black castor-oil, in which is steeped a coil of homespun coarse raw cotton, the end of which is lighted and hangs over the spout, and gives a light sufficient to enable one to make out the whereabouts of bed or trunks, and to prevent him breaking his shins ; it is always going out, requires constant adjustment, and makes an incessant smoke ; as to its smell, that is usually absorbed in the surrounding many cognate odours.

A day's ride without incident through another brightly varied district, full of bright flowers, ferns and grasses, palms and woods, brilliant birds, and better roads, brought us within

anchor. The middle-aged *vermelhões* are much more numerous, bite freely, finer, and sharper, and are also, to a certain extent, troublesome to get rid of. But the "jolliest" is the *miúdo*, who swarms on one by army corps at a time, thoroughly takes possession of one, and blots out memories of all other earthly cares at once. The best remedy in this case is to jump into a fire of green wood, or off with clothes and plunge into a river whilst the clothes are being fumigated.

sight of the very picturesque town of Congonhas do Campo.

In the foreground on the left are the scattered buildings, of considerable extent and pretension, of the church, convent and college of Nossa Senhora da Conceição, making the houses of the town quite subsidiary in appearance; in the hollow below us are the red-tiled roofs and white glinting walls of houses and stores. The Rio Maranhão, a clear stream of water in the hollow of the valley meanders over gravel and boulders, between green sward banks, beyond it, on rising ground, are the houses of the village and church of Mattozinhos, above which are the serried tiers of the Serra de Boa Morte rising in peaks, cones and ridges, one above the other. Over that range will be our road to-morrow.

We descend an unpleasantly steep rocky and roughly paved road, and eventually find ourselves under the hospitable verandah of Senhor Alferes Gourgel.

Now, this Congonhas do Campo is not only a very picturesque and charming locality, but it is full of curious buildings filled with curious things. Unfortunately, I am again on the grounds that Captain Burton has "done"—and he has done it so well and thoroughly that I have nothing more to glean, or even to add, and would like to here insert an extract from his "Highlands of the Brazil," as the description of the scenes in 1868 is applicable to 1873, and is, I believe, even now to 1885; but the description is too lengthy for this book.

The day for such extravagant labours as has been expended in these old churches and convents of inland Brazil, has passed away with the cessation of the good old mining days, the subsequent extinction of the Indians, or their amalgamation with other races, and by the stoppage of the importation of slaves.

Grand old structures are everywhere met with in Brazil ; decaying evidences of a bygone era of prosperity, and the indication of a transition stage, that must eventually, despite all obstacles, lead on to a new stage of existence and the production of more stable industries. The powers are there, latent now, the stimulus alone is wanting, and that will only come when a swarm of emigrants, with new blood and energy, will recolonize this grand country, as the intrepid old Portuguese did in the times gone by. Then the free and independent *matuto*⁵ will have to occupy in the world his niche of utility, and not become a drone upon the earth, a generally non-productive, useless incumbrance as he is at present.

We took a most interesting walk around the quaint old place ; and the sacristan conducted us over the church chapels, convent, and college. Architectural beauty is utterly absent in every form, the details are crude, clumsy, and coarse, yet the whole mates well with the plain, substantial houses of the town. In the long paved ascent to the church, a dozen small detached chapels contain each a life-sized group of wooden figures representing scenes from the Passion ; the figures are represented in quaint garments, the Roman soldiers have Hessian boots ; but the extraordinary development of noses and other features of the figures, is the funniest sight imaginable, and must raise a smile to the most devotedly intentioned of travellers.

Our hostelry this night was a very fairly comfortable one for Brazil. On one side of the steep ramp of the street, paved with round cobble stones, is the venda, restaurant, and dining-room of the Alferes, the latter apartment is a bare, whitewashed, barrack-like room, with a long, plain table and long wooden forms on each side of it.

⁵ Peasant.

However, if extremely plain, it was fairly clean, symptoms of the broom being traceable as having been at work at some remote period. The bedrooms are a row of rooms on the opposite side of the street, somewhat resembling rough stables. This apparently extensive accommodation is provided for the crowds that flock into the town on the occasions of the annual festivals of the patron saint on the 11th to the 14th of September, when, I am told, the place is densely occupied by the pilgrims to the shrine, whose offerings average 2000*l.* per annum.

A dense white mist and a raw chilly air filled the valley in the early hours of the next morning as we sallied out for a bathe in the stream, to the wonderment of the blanched, shivering inhabitants. Everything dripped with the cold damp; grasses, bushes, and trees glistened as though covered with hoar-frost, the water of the stream smoked with rising vapour, the mist hung around in wafting masses like a fine spray. Yet with the sweet perfume of the *Capim gordura*, the pungent, aromatic, or pepper odour of certain bushes, there is always an indefinable charm in these early, cold, misty mornings.

At 8.30 a.m. we again continue our journey; the last vestige of the mist has already disappeared and the sun is already at work with its brazen rays of light and heat. As we cross the Rio Maranhão we see washerwomen at work, belabouring the flat boulders with wet clothes. Close by is a negro, with *batea*⁶ in hand, filled with the gravel of the river-bed, washing it for gold.⁷

After crossing the stream we soon get into rugged

⁶ A wide shallow wooden pan.

⁷ There are very few streams in this neighbourhood that do not produce gold. It is the middle of the gold zone that extends from Campanha in Southern Minas to Ouro Preto in the north. At São João del Rey, I have panned gold from the dust of the highways.

country, sight many an old gold working, (now silent and deserted,) descend into deep wooded grottos, and scramble up steep slippery paths, up which the mules, using the points of their hoofs, struggle snorting and with distended nostrils. After a while the grades become longer and easier. The hills of the Serra are approached by long rounded slopes, covered with the tall richly verdant grass of the *Capim gordura*, amidst which crop out huge boulders, blackened and weather-worn, and speckled with grey and blue and crimson lichen,⁸ and dwarf trees twisted and gnarled, the leaves dry broad acrid and rough, and trunks and branches charcoaled with the annual *queimados*. The road winds around the hills, dipping into valleys and on up again around more hills.

As we proceed, fine views are being continually developed, extending and changing as we ascend. At last, is reached the base of a hill that rises a considerable height above the road; believing that we shall eventually cross the summit in some pass, we determine to ascend this hill and prospect our surroundings. When we halt, and Antonio hears of our determination, he only scratches his head, gives a little sigh of resignation, looks at the steep slope of the hill before us, full of holes and boulders and tall sticky viscid grass, dwarf trees and thorny dwarf palms, all aglow and glistening in the bright hot sunshine; then he bestows a wondering look upon us, lights his cigarette, and evidently is thankful he is not *um ingles exquisito* (an eccentric Englishman). We struggle up the hill, three or four hundred feet high, through the tall rank grass, blackening ourselves with the charred trees, and getting pricked with thorns, and finally reach the summit, blown perspiring dirty and sticky, as though we had waded through

⁸ The latter is the rose lichen (*Spiloma roseum*).

grass covered with molasses. A fine view of course we obtain, but fine views are here rather drugs in the market. Ahead of and high above us, we see hills, tier after tier, all covered with grass, except the highest peaks that rise up into huge boulder-strewn rugged masses of pinnacled rock. We had made ourselves uncomfortable, without reaping any satisfaction further than that obtained by having yielded to our British tastes for hill-ascensions. We felt that Antonio was really justified in the questioning looks he bestowed on us on hearing of our determination, and certainly, on returning we envied his cool repose as he lay extended on a grassy velvet sward by a clump of bamboos, calmly smoking his cigarette. He looked once at our red-hot faces and soiled clothes I thought, pityingly, and then uttered his "forwards" to his mules. "*Choc!—choc!—Estrella, Joaninho—choc!*"

As we rode on, the hills became more abrupt and rugged, boulders of all sizes, masses of ironstone, littered the slopes; the roads were firm and even, and looked macadamized with fine oxidized iron filings. The hills appear to be constituted of iron; everywhere are rich samples, for many of the rocks seem like masses of old iron. Pieces that I brought home were found to have the rare percentage of 80 per cent. of the pure metal. I was told that the local blacksmiths weld horseshoes and nails directly from the ore, and they are preferred by the muleteers to any of the imported articles.

After a long and patient climb we mount a ridge that we have long concluded must be the summit; we reach it only to see ahead, another and higher one, and so on by a series of steps, as it were, we climb on and on until 2.30 p.m., when we arrive at last at the highest point, and rest ourselves and animals.

N.E. and S.W. we can trace the course of the Serra, a myriad of peaks of bare rock, and rounded ridged flat pointed and

saddle-back hill-tops, valleys and chasms, and deep ravines, all covered with grass ; forest we can only perceive in the distant lower valleys to the N.W. and S.E., especially to the N.W. There, the distant lowlands, far below us, appear to be a vast forest covering an undulating country. The summit of the Serra is a shallow depression about an acre in extent, carpeted with a rich soft greensward, where a few beetling crags of dark ironstone, weather-stained mossy and spotted with various lichens, rise boldly and grandly from the otherwise even surface. In some hollows were little lakelets of clear crystal water, fringed with many flowering plants ; and grouped in clumps or singly upon the grass plateaux were other flowers—new and strange to me ; there were many varieties and several were brilliant in hue, and the greater part of these shrubs appeared to have a common characteristic of thick woolly stems and leaves. Bromelias, cactii, and orchids abounded on the rocks and upon a few stunted trees that grew unaccountably in the red flakey metalliferous soil. The air is so superb and the views are so varied and so extensive, that we could spend hours enjoying the glorious atmosphere and the vast panorama. A blue transparent haze tinges the distant lowlands, that roll away to the horizon in great billowy waves of verdure, here and there darkly shadowed by the passing white fleecy clouds of the blue vault above ; far away, little columns of grey-blue smoke arise from some burning *roça* or grass-land, the only evidences of human life in the vast area. The only birds or animal life are a few turkey-buzzards circling in the blue ether far away below.⁹

⁹ The chief of the expedition afterwards told me that when he crossed this range by the same road, his aneroid indicated 7800 feet above the level of the sea. If this is correct, this range must be a much more important elevation than is usually estimated, although it forms part of the same chain as the Peak of Itabira.

As we descend the northern slopes, other flowers somewhat similar to camellias and magnolias, appear amongst groups of bamboos, dwarf trees, and cactus, yet the soil still appears to be of the most sterile nature.

But soon our attention is required to preserve our necks in making the descent of the Serra, for the road becomes a most startlingly abrupt ramp. For a long way it hugs the steep sides of hills, high grassy boulder-strewn slopes on one side, on the other, deep cavernous ravines. The



The descent of the Serra das Boas Mortes.

road is roughly paved with huge irregular blocks and slabs of stone, that must have been collected from the adjoining hills with extraordinary labour and difficulty. A low parapet wall, two to three feet high, provides a welcome defence to the wayfarers from slipping down the adjoining precipices. The ramp is so steep, and the boulders and slabs are so very irregular, that really it seems like descending a staircase strewn with packing-cases; riding is out of the question, for the mules slip down smooth surfaces, their hoofs

glide into the interstices of the slabs, they stagger, and scramble, and slip, and twitch and tremble in every limb ; but we get down and down below at every slip and plunge ; it is a road fit only for a goat.

I noticed there were many opportunities of improving the road by lengthening and easing the gradients, but the old colonists have evidently considered that gradients should be subservient to direction and distance. This road must evidently have been in former times of considerable importance, at least judging by the labour that has been so lavishly expended upon it, but now it is comparatively neglected ; the stones are slippery with mosses and lichens, indicating how rarely a traveller passes, and on some of these velvety boulders we were no better off than the mules ; we got our legs jammed between rocks, slipped on the mossy surfaces, and barked our shins and elbows.

At one bend of the road comparatively level, we all stop for a breather ; ahead and below us we catch a glimpse of the waters of the Rio Parãopeba in its wooded valley ; around us are the grass-covered and boulder-strewn buttress hills of the Serra, divided by deep ravines and wide or narrow wooded valleys. Above and behind us we can trace up the hill-sides the course of the road we descended, doubtless paved with good intentions by the old colonists. Finally, we reach the base of the mountains, where we travel through an undulating country towards the river.

What from the heights of the Serra appeared to be woods and forests, proved on a closer acquaintance to be only a jungle of scrub bush and scattered trees, few of the latter being of any great size. The whole district has evidently been disforested, and in past times must have been under extensive cultivation ; old abandoned *roças* or clearings, decayed fences, old decayed houses, and other evidences of a former

state of prosperity are continually met with. The woods, such as there are, are quite a modern second growth.

There are yet many small *roças* of Indian corn, and small decrepid poverty-stricken homesteads; the people we pass are sallow meagre and poorly clad; many are suffering from *goître*, a disease greatly prevalent on the upper Rio Parãopeba. Finally, at 5.30 p.m., we arrive at São Gonçalo da Ponte. We pass first a few old straw-thatched huts with wattle and dab walls, surrounded by trees or bushes; we see the usual gaunt long-legged pigs, and the village curs bark and snarl furiously; little naked pot-bellied copper-skinned children peer at us, and stretch out their hands for a blessing and a copper, shyly saluting us with the formal "*s'cris*." ¹ In the houses the women are at work at rude looms weaving the coarse but excellent, strong, and soft native cotton cloth, either plain white or in coloured stripes or diagonal patterns.

Now the river appears in sight, a stream of yellow water about 150 feet wide, with tall banks of rich soft soil topped by dense bushes, trees, or small *roças* of Indian corn. It is crossed by an old bridge of grand beams of timber, resting upon piles eighteen inches square; they are solid enough, but the force of many years' floods has loosened and thrown them out of their original inclination; the roadway is formed of thick planks, but many are missing, leaving great yawning holes; others are rotten, and the old structure trembled as we rode over it. On the other side is the main part of the village consisting of an old barn-like church with a rough wooden cross in front of it in the last stage of decay; the

¹ This salutation is common throughout Minas, and is used by blacks and children to their masters or superiors. They are really supposed to say *Jesus Christo*, or more fully, "*Louvado seja Nosso Senhor Jesus Christo*" (May our Lord Jesus Christ be praised), to which the invariable reply is, "*P'ra sempre*" (For ever).

houses are irregularly scattered in detached lots, some, the relics of the bygone times of prosperity, are fairly sized and well-built, but now all are ruinous; there did not appear to be a sound roof in the place, yet the soil is rich, as can be seen by the dense vegetation of bush and a few fine trees that fill up the spaces between, and at the rear of the houses and huts. There is a poor little *venda*, a smithy, and a *tropeiros* rancho.

This village is the starting-point of our surveys, and soon we learn that one of the staff, a Swede, has already commenced work; we hunt up his quarters and find them in a house in the centre of the village, and like all the others, in the last stage of dilapidation, the plaster and whitewash has gone from its walls, the adobe around the window and door-frames has fallen and left big holes; the timberwork is grey with age, worm-eaten, and in places rotten; a balcony runs along the front, many of its rails have long since disappeared; the wooden floor is coated with mud and full of holes; many of the tiles of the roof are gone, others are broken, on others is a rich crop of various plants.

Our colleague now joyfully comes out to meet us; we perceive that our friend is evidently being affected by the poverty of the place. He is certainly in a rude state of health, as his broad sunburnt face and muscular figure clearly show; but his "make-up" would be a fortune to any London theatre-manager for a stage Californian ruffian: he wears an old battered straw hat, the crown flapping in the breeze, and one side of the brim hangs loosely over one ear; a flannel shirt open to the chest and sleeves rolled up; a black leather belt to which is slung a long wood-knife; but his boots—those boots became eventually his travelling wardrobe; originally made to cover his thighs with an ample width, they were then in a state of soft collapse, and hung about his ankles in the

manner affected by the typical old-fashioned stage brigand ; when travelling on horseback he hitches them up and stuffs in a few shirts, and other changes and provisions ; they eventually created a general idea that he crawled into one of them at night as a sort of sack-bed.

My companion is rather dumbfounded at the sight of him and of his surroundings : we had naturally expected to find rough primitive quarters, but not such a woe-begone place as this to provide a railway with. However, that only concerned the powers that be—our duty is to make the surveys.

We were just in time to obey the calls of a ravenous appetite. It is a long ride between meals from 8.30 to 5.30 over mountains, and breathing such a pure bracing air as we experienced, but the dinner-table was a novelty ; down the middle of a bare table was spread an array of black earthen and iron pots fresh from the fire, a few plates, a few iron knives, forks, spoons, and sundry black bottles that formed the festive scene. The waitress was a black middle-aged damsel, dressed in a cotton skirt and a chemise that barely covered one black shoulder ; her clothes had once been white, but now they looked as though they had served for years as dish-cloths and saucepan-cleaners ; her teeth were filed like a saw, her wool was ragged, and she was odorous as black ladies will be when fresh from a kitchen fire. The bill-of-fare was the inevitable stewed fowl and rice, black beans, potatoes, pumpkin, cabbage, and *farinha de madioca* (cassava flour), *restillo* (redistilled *aguadente de canna* or *cachaça*), and Portuguese wine (black strap). We were all too hungry to be critical of anything, and rough and uncouth as was our table, never was a dinner more thoroughly appreciated. A chat, pipes, and a rubber of dummy whist concluded our first day's introduction to the valley of our future labours. We then picked our way into adjoining kennels, where the walls were blackened and crumbling, and stars shone through the well-ventilated roof.

Dirt, disorder, and rubbish were everywhere ; we barked our shins in the semi-obscure light of castor-oil lamps, as we waded through piles of old hides, heaps of corn-shucks, old ox-harness, &c., to our beds of rugs, but we were healthy and very tired, so what mattered the blackened walls in the dark ?

The next morning, one of the mules turned up looking as miserable and forlorn as any one in the throes of sea-sickness. There is a weak look about his knees, his tail hangs limp and straight ; the flies may come and go, but he has not a whisk left in it ; his head hangs low, his eyes are dull, his ears hang loosely, he is indifferent to all surroundings, the sight of corn evidently makes him feel bad ; could he but speak, he would mournfully say, O ! I've got such a head on me this morning. He is certainly *doente* (sick), and must submit himself to the one universal Minas remedy, "bleeding," a day's rest, and stop his corn for the day.

We therefore determine to stay and see our colleague's work. He has completed the surveys of one side of the river, and has strangely received orders from headquarters to survey the other side ; if we have to proceed on this principle, our survey will take a long time. We walked along his *picadas*² that formed the trial-line of the proposed railway. The cutting of these lanes through the woods and bush necessarily occupies much time, and regulates the progress of the actual work of surveying, according as the vegetation may be dense and matted, or open and clear. We found his men well at work, swinging bill-hooks and axes with vigorous and telling strokes, and singing in chorus, each man taking his part in the not unpleasant melody. At this labour, once you get the Brazilian *matuto* at it, there is no better woodman to be found ; he understands and likes his work better than any other. The difficulty is to induce him to come, for he will not work for hire unless

² Long lines or lanes cut through the bush or forest.

compelled by the want of a little means to purchase some requisite for himself or his family ; otherwise he will swing in his hammock, smoke his cigarette, and strum his guitar, or sleep, and tell you he is "*muito occupado*" (very much engaged), and perhaps he may be able to come "*se Deus quizer*" (D.V.) next week, or the week after.

In this district exist many vestiges of old gold and diamond *lauras*, long since abandoned. In a shoal of pebbles in the river we are pointed out many of the stones that constitute what is known as the *formação diamante* (diamond formation), that is, stones that are generally found in conjunction with the diamonds. Observations on this matter will be found on page 330 of this book.

A stroll through the village revealed a state of the greatest poverty. At our host's quarters, when he first arrived there, he found the people destitute of even an iron spoon or fork, or an iron kitchen pot. Yet there is no absolute want of food ; the land is so generous, that it amply repays the slightest cultivation ; every one, no matter how poor, has somewhere a patch of Indian corn, the grains of which are pounded in a rough wooden *pilão* (pestle and mortar), the coarse flour is then boiled into a stiff porridge, that makes a wholesome nutritious sustenance,³ consequently no one need starve. The poverty that exists is purely and simply owing to extreme laziness. The people, however, are very civil and even respectful, and exceptionally unobtrusive ; the latter is a rare trait of character. The women appear to be the chief workers, for they work in the fields, weave cloth and cotton-yarn, make lace and clothes for themselves and husbands (?). They are not much given to marrying in this village ; each one selects his or her mate, and if eventually a *padre* arrives on a tour and all has gone well, they then get married, but the form is quite a secondary consideration.

³ Known as *angú*.

The next morning the sick mule was convalescent, and we proceeded on our way down the river valley to São José, where we shall find two more of the staff, and who are expecting our arrival. We pass through yet a very undulating hilly country, and cross many spurs from the adjoining serras, several of which extend to the river's banks, and make its course very winding and full of rapids and rocks; the vegetation is everywhere a dense low second-growth, the trees nowhere being of any great magnitude. There are many old *roças*, a maze of bramble and bush, and old charred tree-stumps and decaying grass huts, amidst which grow the Brazilian bracken,⁴ spiny feathery bamboos, and the rich green sweetly odorous *Capim gordura*, whose perfume is to Minas what the fragrance of newly-mown hay is to England; (but its memories will ever be associated with pale-blue skies, glistening white clouds, the hum and buzz of insects, salamander lizards blinking in the bright hot sunshine, and a healthy perspiration that makes one feel as though he has just emerged from a warm bath.)

We pass also several farms, huts, and plantations, the latter chiefly consisting of Indian corn, sugar-cane, tobacco, and beans—the castor-plant is met with wherever there is a habitation; some of the farm-buildings are old but substantial structures; nothing is new in this valley, all is old, decrepid, and worn out. One conspicuous charm however this valley possesses, is the great number and variety of flowers. The bushes by the roadside are covered with variously coloured *convulvi*, white honeysuckle, and the dark-green leaves and brilliant golden-bell flowers of a species of *Allamanda grandiflora*; there are also the strangely formed brown flowers of the *Jarina*,⁵ and a white *Ipomæa*; ⁶ delicately-fashioned and pale carmine flowering arums, and many bushes bearing a pretty creamy-carmine flower,⁷ the trees are often bedecked with masses of

⁴ *Pteris aquilina* and *Pteris caudata*.

⁵ *Aristolochia ringens*.

⁶ *Ipomæa Krusensternii*.

⁷ *Malpighia Coccocigera*, L.

brilliant vermilion flowering bromelias, soft mosses, creeping ferns, and strange parasitic plants ; graceful bamboos, tree and other ferns, and handsome feathery grasses fill up all uncleared spaces. There are many small birds of common species, chattering screaming and whistling, myriads of butterflies, and a great buzz and hum of insects, and from the ground everywhere ascends quivering rays of heat.

São José at last came in sight—a large village scattered over two hills and a valley ; a long and irregular street runs through the centre and lower part, and leads to a bridge over the river. We sighted a house on a hill-top, with a verandah running along the first floor ; on a tall mast a small Union Jack was flying (that we afterwards found to be home-made) ; and soon after we were under the hospitable roof of Messrs. O—— and C——.

Although we had never before met these gentlemen, it was nevertheless a great pleasure to meet our countrymen and colleagues, for I felt as though I had been travelling for years. Our new friends were very comfortably established ; they had had the house thoroughly cleaned out and whitewashed ; it was of course but very plainly furnished, but its neat and clean appearance afforded a refreshing contrast to the abodes we had hitherto had to put up in. They had been here already a month, waiting for instruments and baggage to arrive ; their time had passed slowly and wearily, for although they had repeatedly tried shooting excursions, no sport was met with worthy of the trouble. C——'s genial nature had made him unfortunately acquainted with nearly every inhabitant in the village ; he already knew their names, business, or occupation, that is when they had any. I say unfortunately acquainted, because soon after our arrival the neighbours commenced to troop in—such a sorry-looking crowd—old garrulous withered hags, and imbecile-looking *goître*-afflicted

brown loafers, and occasionally pretty interesting-looking children. Some of the men had huge excrescences on their necks, sometimes as large as a cocoa-nut—not by any means pleasant spectacles.

Their reception by our two friends was rather comical, O—— growled at them in English, C—— received them lovingly, bantered them in very, very broken Portuguese, and made great pets of one or two very pretty little girls. They all appeared to have the run of the house, and to come and go when they liked, leaving invariably the traces of their presence behind them, that gave constant work for the broom and swab of the little coloured servant-boy of O——. One tall gaunt scowling-faced brown fellow was particularly intrusive, turning up at all kinds of hours several times a day, when he sauntered about with his hat on his head, expectorated freely, and examined and handled everything that struck his fancy. He was a source of chronic irritation to O——, and consequent fun to C——. Here is a sample of one of his visits, and the last :—

O. Oh! confound it, here comes that awful man again.
Hi! senhor! que quer agora? (what do you want now?) *

The man. *Nada* (nothing), he replied indifferently, at the same time expectorating and eyeing my holsters.

O. *Oi! Pedro! vassoura* (broom). (A little mulatto boy, Pedro, appears with broom and removes vestiges.)

C. *enters.* *Ah! senhor! como está?* (how are you?) (Shakes him by both hands.) How's your mother? Family all well? Have a blessing? (Blesses him.)

The man. *Não entendo sua falla* (I do not understand your talk). (Turns about, expectorates, and pulls my revolver out of the holster.) *Ouae!*^s *Que bixo!* (What a *bixo!*!).

^s This is a common Minas expression of surprise, pronounced o—o—o—*whi*.

O. I hope the brute will shoot himself. *Pedro ! vassoura.*

C. (Pointing to revolver in man's hand.) *Bom ! ch ?* (To me.) Nice gentlemanly sort of fellow, isn't he ? (The man now, to my relief, returns the pistol to its case, examines carefully the saddle and bridle, tries the buckles and straps, feels the texture of the saddle-cloth, and the points of the spurs, uttering *Quai !* at every new article he handles, looks around for something new, expectorates (*Pedro ! vassoura*) peers in the bedrooms, goes to the dining-room, helps himself to a glass of *cachaça*, drinks water, expectorates (*Pedro ! vassoura*), takes up a book and looks at its pictures upside down.) *Não entendo nada d'isto* (This I do not understand anything about), and finally seats himself in a hammock and gazes stolidly at us.

O. What a brute ; is he going to stop ?

C. Oh ! he is splendid fun. Let him remain.

Now some more loafers enter ; scraggy old women, with bare bony brown parchment-looking shoulders and ragged grey hair, sallow gaunt faces, toothless mouths, and *goître*d necks.

O. Oh ! if I could but talk to these people, I would soon be free of them.

C. Ladies and gentlemen, be seated, pray take this ottoman (an empty case).

Chorus of old women in shrill voices,—

Ah ! young man, young man,

Give a poor old woman a little drop of *cachaça*,

Give a poor old woman a little sugar,

Give a poor old woman a little coffee,

Give a poor old woman a little dried beef.

We don't understand your language.

C. now plies the old beldames with sundry glasses of *cachaça*.

O. For heaven's sake, C., do not so encourage the visits of these wretched old women.

C. Nonsense, my dear fellow, why life would lose its charm without their innocent mirth.

Being afterwards requested by O—— to free his house from his troublesome visitors, I tell them quietly that it is not the custom of our country for every one to walk into every house whenever they choose, that we are very pleased to know so many good and kind people, but they must only come when they are sent for, or when they have anything to sell. It required some moments of thought to enable them to realize my meaning, but eventually they understood and departed quietly, and never troubled us more, except Mr. O——'s very objectionable and persistent visitor. When I addressed him, he scowled and sulked, and did not appear disposed to move. When remonstrated with, he replied by saying he was not a slave, but a free man, and thought he had a right to visit whom he pleased. "Yes, my friend, but these gentlemen here are also not slaves, and desire a little less of the pleasure of your society." "Humph. *Von'cê quer que eu sáia?*" (You wish me to get out?). "Precisely, my friend." He got up, looked at me from head to foot, gave me a most diabolical scowl, and lounged out of the door, expectorating his disgust.

But amongst our visitors, there were others of a different type; farmers of the neighbourhood, and village storekeepers, good homely, honest-looking fellows, who would chat sensibly and give sound advice, men whom it was always a pleasure to receive, civil, hearty, and bluff, courteous and unobtrusive in their manners, yet always ready and anxious to drive a bargain and a hard one. Everything we purchased was sold to us at about four times its value. The cook that our friends had engaged was a negro slave, a jolly good-tempered fellow,

very willing and intelligent ; he was being rapidly made into a good plain cook and a useful servant ; his hire, 1,500 reis per day, or over 50*l.* per annum, was fully three times his local value.

As an evidence of the crude ideas that exist at home with regard to the interior of Brazil, C—— showed me one day an extract from a letter he had received from a sister in London, who inquired of her brother if he wanted any gloves sent to him, or if he could get his old ones cleaned. Gloves in São José, it was too rich !

That evening was a remarkably pleasant one ; we were all on the kindly terms peculiar to most Englishmen when they meet each other for the first time, and before we had had time or occasion to lose our respective considerations for each other's little failings, let alone the fact of being countrymen meeting each other for the first time, away in the backwoods of Brazil.

The next morning, the 22nd of February, my travelling-companion left us to go on to headquarters at Capella Nova do Betim, taking Antonio with him. I remained behind to wait for baggage and instructions. We all accompanied him on foot some miles on his way.

We were all brimful of health and energy, and went at a swinging pace, the blood coursing through our veins as it will on a walk over breezy Dartmoor on a summer morning. The sun was high and scorching hot by the time we returned from our ten miles' tramp, but although profusely bathed in perspiration, we felt good for another twenty miles as soon as we could satisfy the gnawing demands of a furious appetite. Even with the heat of the sun and the roads full of ruts and deep holes, it was a pleasant walk ; the fresh breezes loaded with various perfumes and odours, the bright flowers and foliage, the chirrups, cries, and songs of birds, and the natural

buoyancy of good health, and an utter absence of worry or anxiety, made one feel happy in the present and regardless of the future, conditions that disappear as life's inevitable experiences and cares are accumulated.

The village of São José contains, more or less, 100 houses† and huts, all untidy and more or less dilapidated, and situated mainly on each side of a long straggling street at right angles to the course of the river ; at the river end, the street terminates in a few paths that lead by a steep ascent up a low rounded hill, on the top of which is an irregular square of detached houses and the church ; this is the Belgravia of the village, and contains a few better houses, in one of which we were domiciled. The church is a plain whitewashed adobe barn-like building. The path then winds down the hill to the bridge, beyond which are other hills and deep valleys covered with trees, bush, with scattered plots of Indian corn, beans, &c. In the village and around it, everywhere where there is not the narrow rut-furrowed road or a house, the wild vegetation encroaches, but even this has here a dirty untidy scrubby look about it.

The inhabitants of the village and the surrounding country are unquestionably extremely poor ; there is really no exportation of surplus productions, as nearly the whole of the produce is locally consumed ; certain necessities are imported from Barbacena, such as calico-sheeting, cheap prints, gaudy shawls, gunpowder, shot, salt, a little hardware, salt cod-fish, wine, but the wonder is where the means are derived to pay for them. All articles of local production are inexpensive, fat fowls about 8*d.* and eggs twelve for 1*d.* ; corn and vegetables are extremely cheap, as is also river-fish, when it can be obtained.

We were told that there was to be a deer-hunt in the woodlands near, on the next morning, organized by the *padre*

of the village ; therefore we were prepared for the noise in the village that saluted us about 6.30 a.m. of the next day. Some one was playing weak calls on some instrument that sounded very much like a child's toy trumpet ; dozens of *dogs were barking, men galloping to and fro, shouting and gesticulating, all their little latent energies being stirred up by the excitement ; all were mounted and armed with small gas-pipe guns, mostly flint-lock, that looked peculiarly more dangerous to the hunter than to the quarry. My two friends took their heavy English breechloaders and wire cartridges. I accompanied them to see the sport, if any.

The *padre* was a jovial, noisy old fellow, all the time shouting or bantering his flock ; the dogs were wretched half-starved curs, and purposely kept without food the previous day to make their scent keener for the hunt.

We tramped on for about two miles across a bushy wilderness showing occasional maize-plots bordered by *capoeirão*, or thick second-growth forest, until we finally arrived at the borders of one of these forests on the slope of a steep hill. Here the dogs, after scouring the more or less open lands of the hillside, gave cry and headed for the woods with wild barkings and yelps. The *padre* now came galloping up and directed every one to take up a position, and as the distant sounds of the dogs in the woods changed from place to place, so he rearranged the position of the marksmen. The dogs' voices become fainter and fainter, until they almost die away and cease ; then suddenly they increase, the sound grows in volume—they are coming towards us. Every one has his gun at full-cock, and ready to shoot anything that appears. Faster and louder and nearer sounds the din of barks and yelps ; the hunters rush madly to take up new positions, my companions jump bushes, scramble through briars and dash onwards with the

rest, but alas! there is a lull in the din; no, it has simply changed its direction, and heading away to the right, away goes every one, horse and foot, to another position; but the dogs' voices have again grown fainter and fainter, and a broad extent of forest lies between them and the hunters, and an air of disappointment prevails amongst the previously excited party, yet the *padre* is not to be defeated; for he gallops off, followed by a few of the more enthusiastic Nimrods.

My companions now approach, covered with perspiration, burrs, and *carapatos*. I have been seated on a fence and have certainly had the best of the sport and plenty of it in hunting these insects from my clothes; we all now get small branches and mutually beat each other with them to get rid of the *miudos*, or very small *carapatos*, no larger than a grain of ground pepper, but whose tickling, irritating presence is becoming disagreeably perceptible. We conclude we have had enough deer-hunting for that day, and set about returning, sadder and wiser men.

On the way home we sight some *jacus* (penelopes) in some trees, but they are away before we can get within range. We were led to believe that there would be *muito viado* (plenty of deer); but if one pair of antlers is seen in the neighbourhood, it is soon magnified into "*muito viado*." Deer there certainly is, as we had purchased some venison in the village only the previous day, but the dense belts of jungle that everywhere intersect the land renders it impossible to follow the quarry when it keeps to the woods, as on this occasion. We heard afterwards that the *padre's* enthusiasm and perseverance was not rewarded by a shot; as the dogs did not again appear in sight, they probably eventually overtook the deer in the depths of the woods and devoured it, for later on they all returned to the village. So ended a deer-chase at São José.

During the day we occupied ourselves in preparing night-lines for fish, and in the evening strolled down to the pleasant waterside and laid them out, but it will be wonderful if any



The riverside at São José.

fish can be found in such a solution of yellow mud that the river now presents. My forebodings were only too truly realized, not a nibble was obtained.

CHAPTER IV.

FROM SÃO JOSÉ TO CAPELLA NOVA.

Alone on the road—A doubtful journey—My mule collapses—Neotim—An Italian inn-keeper and his inn—A rainy morning in Minas—The cataract of "O Funil" of the Parãopeba—A wild scene—Sagacity of the mule—An abandoned fazenda—Another colleague and his quarters—A reason for the desertion of valuable estates in Minas—Capella Nova do Bitim—Headquarters—A free and easy dining-room—A character—Search for quarters—Another character—An old fazenda—Stupidity of the fazendeiro—A Minas storm and an awkward ride home, and a poor reception—Sunday at Capella Nova—Good quarters found at Fazenda Mesquita.



ON the 26th of February, W—— returned from headquarters, bringing instructions that we were each to take up separate sections, and that I was to go on at once and take the most advanced section at Capella Nova, and also that we were each to engage men and tools and go to work, in cutting picadas for the lines of survey, ready for use of the instruments whenever they arrived.

The next morning I started alone, as W—— wished to retain Antonio in his service, and I could not with the brief notice obtain another *camarada*. I finally chose for my own use the old grey mule, a strong animal, very quiet, and a good

pacer, and during the next two years or more I found I had no occasion to regret my selection—but more of this extraordinary old mule later on.

After good-byes and a final stirrup-cup, I found myself journeying along an (to me) unknown road. I remember it was with a strange feeling of loneliness that I thus found myself travelling alone for the first time in Brazil without a guide ; I felt that I was thrown upon my own resources ; there was no reason whatever for anxiety about the way, for if I should mistake one of the many paths that continually crossed or branched off the road in all directions, it would be sure to lead me to some habitation where I could be put right ; it was simply the novelty of the position. I asked every one I met and at every house I passed if I was going right, how far it was to my destination, and when I might expect to get there, &c., &c., for there are no friendly direction-posts to indicate the way. The replies received were calculated not to elucidate, but only to confuse one. My stopping-place for the night I knew would be Neotim, about six leagues or twenty-four miles from S. José.¹ Meeting on one occasion a black fellow on foot driving a bony horse carrying panniers filled with heads of maize, I inquired,—

“ Is this the road to Neotim ? ”

The black doffs his hat and holds out the palm of his hand and tenders the usual negro greeting to a white by uttering “ *S'cris*,” to which I reply, “ *P'ra sempre*.”

“ Is this the road to Neotim ? ” I repeat.

“ *N'hor ?* ”²

“ Is this the road to Neotim ? ”

“ *N'hor, sim*,” (Yes, sir).

“ How far is it ? ”

¹ The Brazilian league of 3000 *bracas* is equal to 4 miles, 180 yards.

² An abbreviation of *senhor*.

"Oh—hum—four leagues or more."

"How much more?"

"*Oh, um pedaço*" (a bit).

"How much is the *pedaço*?"

"*N'hor?*"

"How much is the *pedaço*?"

"*Oh, um tiquito*" (a small piece).

"Well, friend, how much is the *tiquito*?"

"*N'hor, sim*" (Yes, sir). He looks at me wonderingly, scratching his head.

I meet many a reply like this; there is always a varying number of leagues and the rest, the rest being *um pedaço*; *um pedaço*; *alguma coisa*; *uma coizinha*; *ou mais um pouco* (a piece; a good bit; something; a trifle; or a little more). But the most aggravating is, when one has ridden what he estimates the calculated distance, and is stiff and tired with riding, and expects that every hill-top or bend of the road will show his destination, and upon inquiring is informed that it is here; there; over yon hill a bit; or go straight on and you are there, you can't mistake the way; it is just beyond that forest ahead; and lo, you ride on; you pass the forest, the hill, all kinds of branch roads puzzle you every mile or so, go on for an hour, perhaps expecting every moment to sight your destination, until you give it up and plod on, when suddenly you pass a bend of the road and you are home.

Had it not been for the uncertainty, the ride would have been extremely pleasant. The roads were rugged with deep ruts and often boulders of stone, but were dry and firm; the soil is everywhere a deep rich red clay; the configuration of the valley is very hilly and wooded, the woods more resemble in their general appearance any English forest, although no single tree is similar to its neighbour, and with the exception

of the lofty buttressed Gammeleira (a wild fig-tree), the trees are of no great magnitude, neither are the lianas conspicuously large or frequent; yet these woods are as pleasant as the woods of home on a bright summer day; evidently the whole valley has been cultivated, a part here, a part there, and then abandoned to its second growth of forest. Wherever the road gains some higher ground, distant views of the enclosing serras are seen, their slopes dotted with huge masses of rock, the lofty jagged rocky peaks, pale grey in the bright light, stand out clear and distinct against the azure background, and are often green with verdure almost to their summits. But the sight of this range recalled the memory of our scramble down to São Gonçalo, and made one appreciate all the more the present fairly good road.

Occasionally, glimpses are obtained of the Parãopeba winding its muddy course between lowlands and scrub, and old and new plantations, or the sound of its rushing waters is heard as it hurries over rapids down in a deep valley of forested banks, or steep cliffs of rock, with long pendent lines of *convolvuli* suspended down their stony fronts, topped by trees and bush, a rampart of ferns and mosses and trickling water. The farms and houses are few and far between; doubtless there are many hidden away amongst the trees or by the riverside, for the by-paths and tracks are numerous, and evidently lead to homesteads and farms or huts.

The mule is now lagging badly, he requires constant spurring, and that only gets a trot out of him for a few yards and then he stops; he is evidently getting done up, for it is the same mule that W—— rode to Capella Nova and back, and he has had no rest like the others. I get off and have a look at him; yes, he is sea-sick evidently, he has that woe-begone expression and hopeless look that a mule takes upon himself when he is bad: I determine to walk and lead him, but he

will not move ; I pull, I coax, I *Choc ! choc ! Joaninho*," but Joaninho will not *choc*. One might just as well try to move a lamp-post ; I try gentle measures, I belabour him, but move he will not ; finally I mount, and at the application of the spurs he makes an effort and goes on, stumbling frequently, until he again comes to a full stop, and only grunts and kicks in answer to spur and whip. I get off and sit on a mossy bank by the roadside ; we are in a forest, and I have given up calculating how much farther it may be to our destination, for an hour ago I was told it was only a *pedacinho* (a little bit).

It was a comical picture to see me and my donkey "what wouldn't go." Poor old fellow ! he has evidently made up his mind that he cannot go any farther, his head droops and droops as I look at him, his eyes are half-closed, his ears get limper and limper, there is an ominous bend about his legs ; I cannot move him unless I carry him, I cannot leave him, and it is absolute cruelty to thrash him ; well, well, I must seek solace in a pipe until some one appears. I remain for half an hour, when a mule-troop comes along, and the *tropeiro* informs me that "*O burro cansou, e tem sangue*" (The mule is done up and has blood), or in other words is sick.

Neotim proves to be only a very short distance, and I proceed on foot ; for after some difficulty my mule is induced to join the other mules of the troop and continue his journey. We soon emerge from the wood into a low undulating valley of scrub and trees and small plantations and a small assemblage of houses, huts, and ranches—this is Neotim. There is a *venda* and *hospedaria* kept by an Italian, where I obtain quarters.

A consultation is held upon the mule, and he is ordered to be bled and physicked : I feel I can do no better than leave him in the experienced hands of the *arriero* of the

mule-troop, and trust to luck to go on the next morning, the best way I can. I am told the mule is very old, but very strong, and he may perhaps be able to go on in the morning.

Neotim is a curiosity in this valley of old homes, poverty, and decadence, for here everything is new; there are not more than a dozen houses, but they are all modern. The venda is a fairly clean little whitewashed adobe house with bright-green doors and red-tiled roof; and the one bedroom, very simply furnished with a bed, chair, table, and iron washstand, is clean and neat.

The host is a jovial loud-voiced healthy-looking man about forty, but so inquisitive; he besieges me with questions about my boots, what they cost, about my clothes, my watch, my helmet, my name; had I a father? had I a mother? a brother? a sister? where had I come from? where was I going? and where after that? what was I going to do? what was my salary? my age? who were my companions? were they coming to Neotim? what were their names, nationality, ages, size, make, nature? and so on *ad infinitum*, finally winding up with oceans of advice about my mule; and then acquainted me with the joyful news that dinner was ready. He sat himself down on a chair with his arms upon the back, and recommenced his fire of questions, but a fairly wholesome meal is before me of freshly caught river-fish—a most welcome change to the almost unvarying Minas dinner of stewed fowl, black beans, &c. My host tells me it is such a pleasure to him to meet a civilized man, some one to talk to, some one from the old outer world, it is such a dull life, buried in these uncouth woods, &c., &c. Yet withal, he seems fairly prosperous and comfortable; his household consists of several negro wenches and children, and two or three men; his business is a general store, a roadside inn, and a local exchange for all local produce.

The noise of rain upon the tile-roof of my bedroom

awakens me early in the morning, and I find a Minas shower is coming down with all its force; the road is a series of cataracts of yellow muddy water; not a soul is visible except in the rancho opposite, from whence the blue smoke emerges, and figures with bare legs and feet, and heads and shoulders enveloped in their thick blue cloth *ponchos*, are seen through the semi-obscurity of the early morning light and driving rain, preparing the morning meal; evidenced by the spluttering sounds of the frying of *toucinho*, and the odours of salt cod toasted on a stick over the embers, or maybe, a leathery-looking piece of jerked beef burning on the embers.

The mules now return from the pasture with the men who had gone to fetch them, a chilled bedraggled-looking crowd, men and animals dripping with wet and covered with burrs. I notice my old grey amongst them, and he, to my great satisfaction, joins in the mulish neigh at the sight of the *embornals* (nose-bags). He has evidently recovered, as he has an appetite for his corn.

My host now enters, and like most Mineiros on a chill wet morning, takes a morning dram of *cachaça* to keep out the cold, and then lights his cigarette of black Minas tobacco rolled in a piece of the straw-like envelope or corn-shucks of maize. The fragrant black coffee soon follows him, and how enjoyable it is on such chill damp mornings, only travellers in Minas can appreciate. The rain falls heavily until 10 a.m., when the clouds clear away, the rain ceases, a bright blue sky with white fleecy clouds appears, leaving only grey masses of vapour shrouding the peaks of the neighbouring serras. Mine host gives me voluminous instructions as to the road; I try to note down his directions, but it all becomes a jumble of *corregos* (streams), old fences, *morros* (hills), old trees, turn to the right and turn to the left, and keep straight on, and then turn down roads by other trees or huts or fences.

I give it up and follow the bearings of my course as near as the general direction of the many paths will allow. My hotel bill amounted to five milreis (say ten shillings).

I travel on for a few miles over very hilly wooded country, until at last I near a part of the river named "O Funil" (the funnel), where an important Serra traverses the stream,³ forcing it into a narrow channel not more than fifty feet wide, through which the waters rush, a whirling eddying mass of whirlpools; the hills slope precipitously to the river, covered with the grand trees and giant vines of virgin forest; the road is rugged in the extreme, passing over or around huge boulders of ironstone, and intersected with huge roots; in some places it clings to the steep sides and almost overhangs the foaming flood in the chasm below, and where a false step must inevitably plunge rider and animal to eternity.

I halt a few moments to enjoy the scene under the shade of grand trees bound and enveloped in great vines. It is a grandly picturesque spot, its charm enhanced by the roar of the waters; there are scarped rocks, huge piles of mossy stone embedded in the surrounding foliage, tremulous palm-leaves flashing rays of emerald and gold; from the stony bluffs hang many a vine and flowering creeper, and trailing wild passion-flower; and gaunt skeleton-like trunks extend their parasite-covered limbs over the waters; under the trees is a deep warm shade in which flutter butterflies and humming insects, a pleasant retreat from the glare of the rocks and trunks and foliage glowing in the fierce sunlight.

The railway survey will have to pass through here, and it will be a heavy piece of work to get through this defile. In fact all the way from São Gonçalo da Ponte the line

³ This is the Serra dos Tres Irmãos, a range of high-peaked mountains that form a spur from the great central range of Ouro Branco. It crosses the river and runs into the division of the Parãopeba and Para.

cannot be otherwise than very tortuous, and owing to the numerous small streams it will have to cross and the rugged configuration of the valley, it must be necessarily very expensive, and where or how a traffic can be obtained to pay for working expenses, let alone dividends, is a problem difficult of solution.

Continuing my journey, farther on the road became execrable, pools of deep mud or piles of rock, steep ascents and descents bordered everywhere by grand shady trees and dense undergrowth. Flocks of chattering parroquets or screeching green parrots startle one from the dreamy feeling created by the deep solitude of these shades and the monotonous roar of waters.

Beyond the defile, the valley widens out again, the slopes become more regular, and the woods more open and less encumbered with undergrowth; but all around are lofty mountains covered with forest, a world of verdure and variegated colours, bright huge flowering trees, tall pale-coloured tree-trunks, and the conspicuous silvery-green foliage of the *imbauba*-trees.⁴

Eventually the road crosses the river by a good sound wide bridge, the Ponte de Jacaré; here the stream flows placidly in a well-conducted manner. There is a *venda* and a few houses near the bridge, and several clearings in the woods. One of my colleagues is at work in this section, and lives somewhere in the neighbourhood. I am told he lives in a deserted fazenda, the Fazenda de Mottes. I am directed to follow the road up the hill away from the river, and strike into a large maize-field some mile or so farther on, follow a path, *não tem errado* (there is no mistake), and it will bring me out to the farm.

Like most roadside *vendas*, this had the usual store of beer,

⁴ *Cecropia*.

always sold as English beer ; but often the only Anglican materials about it are the bottles. In this case the orthodox green metallic capsules were absent, the corks were simply tied on with string. The labels showed the red pyramidal trade-mark of Bass, and the names of well-known bottlers ; but the beer is national and nasty, although three shillings is asked for it. The native *cachaça* toned down with lemon, water, and sugar is far cheaper, pleasanter, more wholesome and refreshing.

I proceed onwards up a long ascent by a wide *estrada de rodagem* (a road for wheeled vehicles, but in this case only suitable for the strong heavy bullock-carts) ; the soil is now a rich yellowish-red clay, and the ruts and water-channels of the road are filled with white smoky and beautiful crystal quartz pebbles.; the vegetation is no longer dense forest, but is a modern second growth of saplings and bushes. On the crest of the hill appears a huge maize-field, extending to a valley on the right. Seeing a path leading into it, I assume I am on the right track, but soon find it bifurcates, and on taking the most beaten path a little farther on, again it bifurcates, and on I go really in a perfect maze—the plants are so high I cannot see ahead ; I try various paths, but they all seem to lead into other paths ; I pursue some for some distance, and I become positively bewildered with the course, and eventually find myself at an old abandoned hut on the edge of the bush. Remembering now that my mule had carried Mr. W—— to the Fazenda de Motte, I determine to trust to the instinct of the animal ; I give the mule his head, and touch him with the spur. He at once returns to the main road, goes off in a business like way further up the road, and turns into a more beaten path leading into the plantation, and proceeds onwards unhesitatingly, descends the hill, emerges from the maize-field, crosses some jungle and bush-land, enters another field, then stops at a gate, and finally he

takes me without a mistake to a group of extensive farm-buildings; I ride into an open square, around which are the house, barns, sugar-mill, Indian-corn mill (*monjolo*), and slaves' houses of a deserted fazenda, a Brazilian "Bleak-house."

The yard is overgrown with trees and bush; the buildings are old weather-stained and decayed; many door and window-frames are missing or hang suspended for the first gust of wind to carry away; but turning towards the house I see signs of occupation, some fowls are clucking in an open verandah, part of the walls have been newly whitewashed, some doors have evidently been lately put in their places, some one has been cleaning up a habitable corner. It has been a grand old house, its framework is of massive timbers, as fresh as when they were put up more than 100 years ago, and now an evident Englishman appears from a room facing one corner of the cleaned-up verandah, my colleague, F—. Our greetings over and the creature comforts of man and animal duly attended to before all things, various matters of mutual interest are discussed, and then we proceed to inspect the residence.

The house is a long one-story building, the floor of which is raised several feet above the ground; a decayed old wooden staircase leads from the open yard in front to a wide covered verandah, that occupies the whole front of the house; various doors and doorless doorways lead into different apartments; in the centre is the old hall or general room; at its opposite end it leads by another doorway on to an old-fashioned open corridor that surrounds and looks down upon the old kitchens below; all the rooms are unceiled and open to the tiled roof above, in which many a ray of sunshine appears through numerous holes. The beams of the structure are everywhere massive, both in floors, verandah, walls, and roof, all are squared by the axe. At one end of the verandah

a door leads into a private chapel, freely painted, and its walls adorned with rude frescoes. Over the old dilapidated altar, one represents the Virgin placidly receiving a formidable dagger in her breast, and another depicts Saint Sebastian in an attitude and with an expression expressing the utmost indifference to the fact of his limbs being perforated with arrows : one meets this gentleman so often in Minas, that it is difficult to imagine him without this accompanying torture. A *mineiro* would not give a *vintem* for the best Sebastian that was ever made or painted, without his arrows ; he wants also a liberal delineation of streaming blood, and the yellow halo of glory is, of course, indispensable.

Outside the main residence it was pitiable to see how everything was fast falling to decay, and how the forest was growing up and shrouding, as it were, with shame, the evidences of a bygone age of energy, from the sight of the now more decadent times. Here one sees the old *monjolo*, yet labouring away and pounding at nothing, instead of the maize it was intended to crush. It is a primitive rude labour-saving appliance. In form like a huge wooden hammer, balanced half-way up the handle on a pivot ; at one end is a long hollow scoop, into this a stream of water is directed, and when it is filled, the extra weight forces it downwards, and the water then runs off ; thus released from the weight, it causes the hammer end to return suddenly to its former position, giving one blow in the receptacle made to receive it, that may be either filled with rice or with maize ; thus it goes on day and night so long as the stream runs, a monotonous—thud—a creaking groan—the sound of a splash of water—thud—and so on, until lately only listened to by the birds of day and the bats of night.

In a large open shed adjoining are the vestiges of a cattle-worked sugar-mill ; the copper-pans have been removed, but otherwise there is all the rude paraphernalia overgrown with

weeds, ferns, mosses, and bushes, the haunt of pale *gecko* lizards, frogs, and bats ; adjoining is the old store-house, and the *senzalla* or slaves' quarters, all damp, decrepid, mouldy, and mossy, and overgrown with vegetation.

F—— had made his own private apartments fairly comfortable ; whitewash and a liberal use of broom and water will effect wonders, even in an old abandoned Brazilian fazenda. I learned that there were then so many descendants of the last occupier, each having a greater or lesser share in the estate, that it became impossible for any one or more to utilize this neglected property (even if they possessed individually the capital necessary to work it) without the other shareholders claiming a division of the results of the energy and labours of the more industrious ; at present they utilize to a limited extent the lands, by each one cultivating on a small scale, or a few in combination, large fields of maize, beans, &c. The state of affairs produced by the abandonment of this farm, is primarily caused by the forced distribution of property amongst a numerous family, and then subdivided into smaller interests amongst the descendants of each of the original heirs. It is what can be seen in any day's march in any direction in Minas Geraes, and the curious anomaly is produced of increased poverty following the increased population of a new country.

I duly proceed onwards on to Capella Nova. The maize-fields and scrub are again traversed, and I follow the main road, now a broad track, and not to be mistaken. The land trends higher and higher, following a long ridge of hills, with wide and deep valleys of woods and scrub on each side, in whose backgrounds appear many rugged outlines of serras, the peaks of the Tres Irmãos (the three brothers) being always conspicuous by their pinnacled rocky summits.

Capella Nova do Betim is sighted a long time before I reach it. Its long street of white houses and red tiles is

prominently situated on a lofty hill, surrounded by deep valleys and by higher hills and mountain ranges. The road descends from the high ground I had traversed, crosses a valley and climbs up a broad steep street, with detached houses, huts, and ranchos on each side. On reaching the top it joins another street at right angles, or, rather a long open *praça*, with rows of door and window houses close together, and a simply constructed whitewashed church at one end. There are several *vendas* and general dry and wet goods stores and open ranchos for mule-troops. All over the open spaces are plots of grass and small bush, littered with logs of timber, masses of rock, or dressed stone for buildings that never will be finished. A few *matutors*, on their bony nags, riding with their big toes in their small stirrups, and wearing the inevitable blue baize or cloth poncho lined with red ; a few black or brown women, in gaudy cotton skirts and shawls and white chemises, hawking fruits or sweets on trays from door to door ; a few loungers at the *vendas* and stores, a few heads in the windows looking listlessly at the scene they daily spend hours in gazing upon, and the numerous pigs, goats, dogs, fowls, turkeys, and guinea-fowls of the street constitute the very little life seen in this sleepy village.

I am directed to a large new house near the junction of the street and *praça*, built in a line with the adjoining houses ; it is yet unwhitewashed, and its bare brown dry plastered walls look anything but snug. There are three unglazed windows and a doorway occupying its front, a fence at the side encloses a long wild compound of fruit-trees, bush, and bramble, and extends a long way down the valley to the rear. Inside, a few rough desks, tables, and chairs have been made or borrowed, and around is a confusion of rolls of paper, portmanteaus, saddle and harness,

clothes, boots, chronometers and other instruments, cases of provisions, cases of drinkables, camp-beds, straw and general litter. This is headquarters.

Soon after my arrival, I proceed with Mr. J. B—— and his interpreter, a Portuguese, here known as Capitão Silvestre, to the village apothecary, who provides us with meals in a small back-room of his house in the village ; a temporary arrangement pending the arrival of stores and baggage in the long-awaited-for bullock-carts. Senhor Ernesto, the apothecary, is a pleasant-faced harmless-looking individual, about thirty-five years of age, apparently plagued out of his life by a large family of squalling children and a scolding wife, for he looks careworn but always smiles sadly when spoken to. He has evidently increased in the estimation of his neighbours by keeping such a gratuitous show on his premises as the sight of *inglezes* feeding. There were a number of loafers around his door, evidently waiting for us, the same as people congregate in the carnivora-house of the Zoological Gardens to see the lions fed, for as we entered the house they all followed us to the dirty interior, and looked about for comfortable positions to sit upon or lounge against ; there they surrounded us, a stolid hard staring phalanx, with hats on their heads, their arms akimbo, or hands immersed in their pockets, staring with a fixed hard glare, only interrupted by frequent expectorations, and not always then. We sat down to a liberal supply of greasy compounds, and black charred unknown joints.

I inquired of Mr. B—— if these visitors favoured him with their presence every day.

“Oh, yes ; every day.”

“Why do you not tell your Capitão Silvestre to free you from this incubus ?”

“He has already asked them to stay away, but they will not.”

The fact was, the *capitão* did not wish to diminish his host of admirers. This man is a character: he had been for many years a steward on board English vessels—his English is naturally, in consequence, very marine indeed; he cannot express a sentence without a liberal use of powerful and profane adjectives, more remarkable for their originality than applicability. He has a great flow of language and a vivid imagination of his own importance. I can quite see by the way he is treated by various inhabitants that he is evidently considered as a person of exalted position.

When Mr. B—— passed through Congonhas dos Campos, the *capitão* was missing. Mr. B—— called upon a local magnate, a certain *barão*, to whom he brought letters of introduction; there, to his astonishment, he found the *capitão* unceremoniously taking coffee with the family, to whom he had represented himself as an important member of the expedition, and in that capacity had paid them a visit, and of course, as interpreter to Mr. B——, he took especial care not to undeceive the good people.

At the table he now informs us that “one of them —— mules is sick again.”

After dinner I request Senhor Ernesto to ensure a little more privacy in his establishment. He expresses surprise at the request, saying, “*o povo hé muito manso*” (the people are very tame, i.e. quiet), and that “it is their ‘*costume*’ to *visitar o gente de fora*” (to visit strangers), but that if we do not like them he will try to engage their attention outside.

They are harmless as country bumpkins staring at “the fat lady” at a fair at home, yet a traveller dining at a country inn would feel himself very unpleasantly situated if similar individuals invaded the precincts of the coffee-room like our visitors at Capella Nova; but then it must be remembered that here we are aliens in a foreign country, where, if certain

habits of the people appear strange and disagreeable to us, the inconveniences should be borne patiently, or if we cannot do so, we had better remain at home. These people meant no offence, and never imagined they were intrusive, or that their presence was otherwise than acceptable.

I can glean no history of this village, for most of the historical events of Minas Geraes occurred in a broad zone extending from Ouro Preto to the south-west. There are no very old buildings in the village, even the church is not 100 years old. The population is estimated to be about 2000 inhabitants, which is much in excess of the apparent reality. Its broad streets straggle a long way; from the summit of the hill one extends nearly a mile towards the Parãopeba, the latter half being a series of detached houses, each standing in its own compound of trees and bushes; there is no attempt whatever made to cultivate gardens, or make neat and trim fences, or hedges, or walks, but there is a wilderness of bright flowering plants and shrubs and fruit-trees, the latter consisting of *jaboticabas*, *mammião*,⁵ *guava*, oranges, lemons, sweet limes, pomegranates, figs, grapes, *abacates*,⁶ *sapotis*,⁷ and everywhere, as it were a corrective to the free use of these fruits, the castor-plant.

Parallel to this long street, about 300 yards away to the south, is the Rio Bitim, a never-failing stream of water rushing down a scarped declivity of brown gneiss—a splendid motor for many mills, yet there is only one small one (for crushing maize) that utilizes its forces. In many of the houses are rude looms for weaving the native cotton into the coarse Minas cotton cloth, that is so largely used by the inhabitants for shirts, coats, and trousers, and excellently soft, cool, and strong it is too, for the two latter articles. There are also

⁵ *Papaw* of the West Indies. ⁶ Alligator pears of the West Indies.

⁷ *Sapodillo* of the West Indies.

a few shops for making the native *viola* (guitar), smithies for making horse-shoes and nails principally, besides a few handicraftsmen, such as painters, masons, carpenters—the latter is often a handy fellow, for he will make a bullock-waggon and wheels, make rude water-wheels, or timber mill-work, a door or a trunk, a window, or build a house or a bridge. The two principal streets form a letter T, the intersection being the summit of the hill. The houses are all ground-floor, built of adobe or sun-dried bricks; some are whitewashed, some are not; all have unglazed windows and red-tiled roofs, and the greater part are weather-stained and with great patches of brown adobe exposed by the fallen plaster and whitewash, and are generally dilapidated and untidy in appearance. There are two or three fairly-sized stores of dry goods owned by white Brazilians or Portuguese; these men are fairly well-to-do—that is, in comparison with their neighbours. The church is in tolerable condition, and inside there are not more than six different colours; the chancel contains a gaudy altar, resplendent in gilt, red cloth, and tinsel ornaments, candles, artificial flowers, figures and pictures of saints. Outside is the usual Minas village cross, bearing all the emblems of the “Passion”—ladder, sponge, crown, hammer, nails, spear, &c., and capped by a very woody wooden chancelier.

During the early evening, several of the principal inhabitants call on Mr. B—, or the Senhor Director, as they call him; (some come in black coats, some in striped Minas cotton coats;) they are kindly disposed, but effusive in their protestations of affection and service, but they must find it slow work conversing through the medium of Capitão Silvestre. Some of his translations were very amusing.

February 28th.—Accompanied by a Senhor Chico, a guide, I left about 10 a.m. this morning to go to a certain Fazenda

de Padre João, sixteen miles away, where I was told I could obtain quarters for my residence during the surveys of the district. A bright sunny breezy summer day saluted us as we commenced the descent of the heights of the village; around the hill are valleys of wood and scrub, and old and new *roças*, beyond which are hills and hills, big hills and small hills, some dark-green with forest, others with the patches of lighter verdure of old or new clearings. The descent is rough and steep; the road is 100 feet broad, but it is full of deep holes, blocks of stone, logs of timber, patches of grass and bush; many a guitar is tinkling in the wattle and dab houses—the inhabitants peer curiously as we pass; at the bottom are a few large *tropeiros* ranchos, some empty, some filled with the packs of mules, where the men are repairing harness and the arrieros are straightening nails or shoeing the mules.^s

These *tropeiros* are merry fellows, they are always singing their high-pitched songs, in the camp, or on the road, and now is no exception, for wild *improptu* refrains reach us as we pass by, about their loves at Capella Nova or other favourite halting-places, or personal observations on our own appearance. We now mount a long hill of grass and bush and scattered trees up a long rough road of fiery-red earth; on reaching the top and looking backwards, we obtain a very charmingly picturesque view of the village and surrounding country. The foaming waters of the Rio Betim are flashing in the sunlight, as they are hurled over the dark-brown surface of the rocks in lines of snowy white; the white houses and red roofs of the village, the varying tints of verdure, the bright grass, the rich varied greens of trees, and the dark sombre greens of the forested hills and serras beyond, with the bright, clear

^s The nails are always sold in a bent shape, I presume as a proof of their pliability, and straightened by the arriero when occasion requires their use.

sky overhead, and all nature, hills, houses, rocks, and trees, aglow in the bright light, form a vividly-bright picture of form and colour. All details are minutely and clearly defined even in the distance, the shades of passing clouds fall here and there over hills and valleys, creeping down the slopes, crossing the valleys, and ascending other hills, giving softness and life to the scene.

Proceeding onwards, we soon enter a long extent of second-growth forest, extending for miles, and covering hills and dales alike; many other roads branch off from our course that would sadly puzzle a stranger, for no welcome sign-posts indicate the way, no maps of the country are to be had, and no comprehensive directions are to be obtained; but my guide saves me a lot of speculation. We finally reach our destination, without having passed a single habitation since leaving Capella Nova. The fazenda is close to the River Parãopeba, and like the Fazenda de Mottes, is an old relic of former more prosperous times. There is a large house, large outbuildings, sugar-mill and *monjolo*, cattle and pig-pens, but all is old, dilapidated, and decaying; there is an air of solitude about it that is anything but enlivening, but its position is convenient for a provisional residence, and it will do.

Senhor Chico claps his hands, and calls "*Ó de casa*" (House ahoy!);⁹ he has to repeat it several times before a shock-headed untidy semi-white man appears at a door and asks "*Ó que é*" (What is it?). Chico greets him as Senhor João, asks after his welfare and that of his family, and proceeds to explain the nature of my requirements. Senhor

⁹ Our nautical "ahoy" is probably derived from this expression "*O de*," pronounced *hoyd*; and like such terms as mast, from *mastro*, a tall, straight stick or pole; prow, from *proa*, the stem of a vessel; cable, from *cabo*, a stout rope, and many others, were originally obtained from old Portuguese navigators.

João has remained all the time fixedly staring at me, as though I was a being from another world. I now further explain the purpose of my visit, but Senhor João looks wonderingly at Chico, and says, "What is he saying? I cannot understand him." My guide, who of course only speaks Portuguese, has to explain by repeating my words, the sounds appearing to me to be similar, although doubtless a slight difference of accent may have puzzled the thick head of Senhor João. However, after a time we got on better, and the following dialogue ensued. I give it in English.

"Oh! *meos Deos!* I do not know what to do. How many rooms do you want?" "I require two; or if you cannot arrange two, I will be content with one." "Oh! *meo Deos! meo Deos!* I do not know what to do." (After a pause, he opens the door of a blackened interior of a room at the end of the verandah of the house.) "Will this do?" "If you have no better, yes; but I must have it cleaned out and whitewashed." (He looked at me in surprise, as much as to say, well, you are a strange sort of man.) "Well," I continue, "suppose I pay for having that room made habitable, what will you charge me for rent of it, attendance, and provide me with food?" (A blank stare, and Chico had to repeat the question.) "*Ouai! Ora! meo Deos!* Provide him with food—him! *Ora!*" (He scratches his head, and is immersed in deep thought); at last he says that he would prefer that I provided the cook. I explain that I wish to be free from all trouble on that score, and that any cook I might obtain would only provide such materials and cook them in a similar way to the custom of the country, and to what he is accustomed to. Again Chico had to repeat and explain; he again pondered deeply awhile, then saying that he would consult his wife he retired indoors for the purpose, leaving us still on our animals uninvited to *aprear*—to get down. After

some minutes' delay he returns, looking more undecided. "How many more are coming?" "I only require you to provide for myself." "But," with a groan, "you will eat so much." "My friend, I confess I have a good wholesome appetite, but I do not think I can excel any ordinary *matuto*." He looks incredible, says "*qual!*" hesitates, scratches his head, ponders deeply, and then suddenly looking up, points to some dismal, tumbledown old slaves' quarters outside—places only fit to be burnt down, blackened mouldy rotten and damp; there are no shutters to the windows, the doors recline against the walls outside where there are any, the inside is the haunt of toads, fungi, and grey lizards. I looked at him to see if he meant his proposal as a joke, but there is not an atom of humour in that apathetic face. "No, I want the room you showed me at first, and as it is getting late, please tell me as quickly as possible, yes or no, and how much you require?" "*Ora!* do not be in such a hurry; you flurry a man; how many are there of you, did you say?" "Only myself." (I again repeated precisely my requirements, and explained to him the probable cost; but he only appeared to be more confounded, and again retired for a consultation. When he came out, he proposed another and better room, which I approved of; then he thought awhile and discovered he could not let me have it.) "Very well, let me have the first one then." "Oh, I cannot decide; you are sure those rooms out there will not do?" "Certainly not; say at once how much you want for the first." "*Ora! homem!* you will want at least four fowls a day." "No, I do not think my powers are equal to that; I have already explained to you what I require." "Then beans are so expensive." "Never mind." "Then you want bread." "No, I do not." "There are now no potatoes." "Never mind all that. How much?" "You will not like the cooking and—" "How much?" "We do

not understand your—" "How much?" "I do not know what to do and—" "How much?" "*Ora! diabo homem!* let a man speak; well, I will go to Capella Nova to-morrow and give you an answer." "Very well, if you wish to make an unnecessary journey of sixteen miles, when you might just as well give me an answer now." "*Adeos! até amanhã.*"

The sun is low in the horizon, and we have a long dark road to travel. Chico points to dark clouds gathering over the distant peaks of the Serra, and says we shall have a *temporal* (a storm) before we get back, so we put our animals at their best paces. It is hot and sultry, there is not a breath of air, the leaves of the tree-tops are motionless in the calm before the storm. The old grey mule has evidently not recovered from his sickness of two days ago, for he becomes lazy, and expostulates with grunts and kicks at the application of spur, he goes slower and slower and slower, as the road becomes darker and darker; luckily, just as the fading lights of day disappear, we mount the summit of a hill and see the houses of Capella Nova in the distance; but, beyond, the background is already shrouded in grey mist, and dense masses of black clouds are discharging their watery contents in long broad slanting lines, the thunder is already rumbling and the lightning is vivid—puffs of wind blow in our faces, the clouds spread overhead—big drops fall—a distant roar is heard—it rapidly approaches—a terrific flash—a deafening crash of heaven's artillery—a violent gust of cold wind—a roar, and the storm is upon us; darkness sets in simultaneously and the road becomes immersed in the surrounding obscurity. Now we must trust to the sagacity of the mules; the old grey is evidently refreshed with the rain, and picks his way unerringly. Onwards we go in the blackness, where, it is impossible to tell, were it not that the occasional flashes of bright lightning momentarily light up the road and scene, showing us dark

obscure masses of bush, and glistening cascades of water, and weird-like trees that spread their branches over the road like grim spectres. The descent of the hill is a series of foaming cataracts of water ; minutes seem hours ; we splash on. Often the saddle disappears below me, as the mule slips in a deep rut or hole ; the lightning is all around us, and so bright that it appears to play upon my mackintosh. Now we are at the bottom of the hill, floundering in some deep running stream. I call to Chico to know where we are, but his reply is hardly heard in the din around—the splash, gurgle, and rush of waters, the creaking of tree-trunks, and the rustle of trees and branches as the violent wind and rain beat madly upon them. I cannot see my hand two inches from my face, still the mule goes on, never halting ; the reins are only useful to help him when he plunges into the numerous holes. It seems an interminable time, but at last we commence an ascent up apparently the course of a stream, for we are struggling in channels of rushing water and stumbling over boulders into holes. The mule is like a ship in a storm of both head-wind and wind on a beam, for he rolls from side to side, he lurches forward, and then climbs upstairs. Surely we are amongst the breakers, for a lighthouse appears with a steady light. No, it is some good Samaritan's in a roadside house, showing us a light, for they hear the sound of passing travellers ; now other lights appear at other doors with a similar purpose ; they are just sufficient to show that we are yet on land, though I was previously quite at sea as to my whereabouts. I recognize that we are ascending the Capella Nova main street, and now one can realize how such a road can develop such ruts and holes, for everywhere the lights flash on streams of water rushing down the steep slope. Finally we reach home, famished and stiff and tired, to find that my generous host has made no provisions for either a

dinner or supper. I tramp across the dark muddy street, and wake up Senhor Ernesto. It is not yet 8 p.m., but he and his family have all gone to bed; the imperative calls of nature however make one inconsiderate, and the gentle apothecary opens a window, when his light is immediately blown out.

"Who is it?" he calls.

"Doutor Diogo starving."

He opens the door, and gets another light. "Hora! Senhor Doutor, what are you doing here at this time of night."

"Senhor Ernesto, if you do not immediately get me something, the consequences will be serious. I am cold wet famished and tired."

Some biscuits, sardines, and Bass's beer are obtained from amongst the drugs on the shelves of his shop, and he expresses his sorrow that Mr. B—— had not told him to keep something for me, as he was unaware of my expected return.

March 1st.—Sunday morning. Really the village does present some appearance of a respectable Sunday. The storm has long since passed away, the day is bright and glowing, there is a smell of freshness in the air, and the place looks cleaner as though it had had a Saturday night's clean up; there is an unwonted movement in the streets, for in place of the usual deserted appearance, it is now lively with groups of country people dressed in their best, coming in to attend, the morning mass; they come on horseback, singly, or pillion fashion, the woman riding behind the man, or they come on foot; most of the women have the peculiar old-fashioned black cloak of Minas, that gives to old and young alike the appearance of so many old crones; the men are all cleanly dressed in clean cotton or black coats. Many have come on foot from considerable distances, and as they approach the village, both men and women stop to put on shoes, readjust their greasy locks, and otherwise

"fix" themselves before entering the "High Street" of Capella Nova. As one watches the faces of the passing peasants, many a good wholesome honest homely expression is seen ; and also many a sallow visage, with long lank hair plastered with melted suet, the complexion denoting dyspepsia from inordinate feeding on oily indigestible diet, excessive smoking, dram-drinking, and lazy lives ; but some of the farmers are hearty jovial-looking fellows. Many go to friends' homes, the women all disappear into the church or houses, the men loaf about in groups in the stores or vendas that are always open every day. The small cracked bell of the church is furiously hammered, not rang, and the devotees assemble ; the women fill the interior and squat on the tiled floor, the men congregate around the doors and walls. An old padre intones the service in a nasal cracked voice ; the musical part is performed by the women in painfully high-pitched nasal notes, assisted by the orchestra of two violins, a cornet, trombone, and drum ; but it is all as orderly, and perhaps more earnestly conducted, than many a Sunday service at home. After it is over some go homewards, some go to their village friends, and many of the men go for a little gambling. After all, what a blessing this little change must be for the poor women, shut up as they are in their houses from all communication with strangers, and buried in many a solitude of forest and bush !

When I returned I found Senhor João awaiting me, of course with his hat on his head, which the country people rarely think of removing on entering a house, yet they will often doff it on being addressed in the open air.

"Well, Senhor João, have you made up your mind ?"

He commenced as before with a series of objections and difficulties, which I cut short at once, and let him know that as I had some newspapers to study I was in no hurry, but when he was ready with his answer to let me know. He

remained perfectly silent for quite a quarter of an hour, fidgeting about, alternately scratching his head and staring at me ; at last he said,—

“ Senhor ! ”

“ Well, are you ready ? ”

“ I have been thinking over this matter.”

“ Evidently—well ? ”

“ I think you ought to pay four hundred milreis per month ” (about 40*l.*).

“ What ? Four hundred milreis per month ? why you have never seen so much in your life ! ”

“ Perhaps not ; but I am a poor man, and money is no object to you—it is all the same whether you pay four or four hundred.”

Senhor João soon departed a wiser and sadder man, perhaps thinking that the ways of these “inglezes” were mysterious indeed.

At dinner Ernesto had freed us from our visitors, and we dined in peace. He then told me of another locality, six miles away, where he thought I could obtain comfortable quarters, and promised to go with me the next morning. Accordingly, next day we departed in quest of them ; in passing over the hills and valleys we crossed in the darkness of the Saturday night, I could not help a feeling of admiration at the intelligence or instinct of the mule, for I found the road bad enough in the daylight, especially a bridge full of holes, over a small stream.

A pleasant ride over two or three ranges of wooded hills running parallel to the course of the river, at last brought me to a comfortable-looking riverside farm.

The house and other buildings were all old, but in fair condition. Under a verandah in front of the house, I found a hale hearty robust but snuffy old white man about sixty-

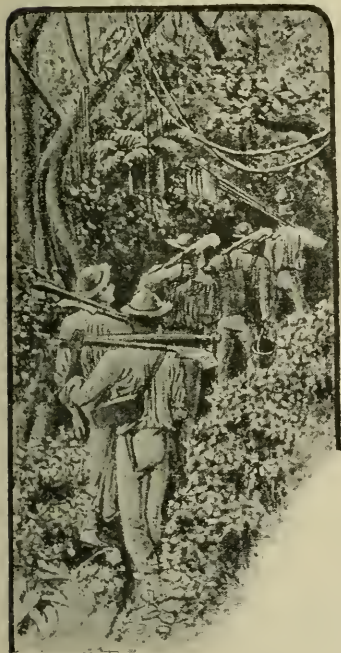
five years. He at once invited us to "*apciar*," and when my request was explained, he brought out his wife, a buxom pleasant-faced clear mulatto woman ; after consulting together, they showed me a pleasant room inside, promised to have it cleaned out and whitewashed, and to provide me with board and laundry for forty milreis per month. I was well satisfied and pleased with the arrangement, and decided to remain, and get the defects, decays, and wants of repair made good at once, although even my travelling baggage was at São José. I requested Ernesto to send me Senhor Chico at once, as he was willing to enter my service. Three negro hands were also engaged from my landlord Senhor Joaquim da Silva, at thirty-five milreis per month each, who were put to work at once at my room. All the household assembled to see the unaccustomed sight of a good clean up ; the blacks entered into the spirit and worked well, and by sunset it was clean and wholesome ; some plain furniture was placed in it, and I beheld my home for several weeks to come.

In the evening my new man Chico arrived, bringing his provision for a week, a small bag of jerked beef and *farinha de milho* (the flour of crushed maize). I think I have an acquisition in this man ; he is nearly a white and particularly handsome, and about twenty-five years old ; his manner is very prepossessing and courteous ; he is slight in figure, graceful, active, and energetic, and all the time he remained with me I found him perfectly reliable and trustworthy, and he never once shirked his duties.

CHAPTER V.

SURVEY OF MY FIRST SECTION ON THE RIO PARAOPEBA.

Commencement of work and the first day's incidents—Slow and difficult progress through the woods—The forest—First experiences—The Brazilian an excellent woodman—Healthy climate and hard work—Mine hosts—A terrible and unavoidable pest—Animals and birds of the district—A man-trap—Snakes—A specimen day's work—Another torment, the birni—Approach of the cold season—Life at the Fazenda Mesquita—A decayed heiress—Sunday at the Fazenda—The river valley and its characteristics—Small population—Goitre very prevalent—A thunder-storm—The cold season—A visit from a colleague—We visit Capella Nova—A would-be Britisher and his



sad experiences—Warm hill-tops and cold valleys—On to the new headquarters at Santa Quiteria—The glorious campos again—Santa Quiteria—Return to Mesquita—Lost in the darkness—A very rough night's lodging—Laid up with sarnas—Their cause and extraordinary cure—Lost again—Genuine hospitality—A worthy couple—A new bridge—Why timber is so dear in Brazil—An evening with workmen—A pacahunt—End of the survey of the section.

WITH the first lights of dawn of the 3rd of March, 1873, I found my few men ready and waiting with *foice* (billhook) and *machado* (axe), that with a pocket note-book and pencil, a prismatic compass, watch, and

my grey mule, were the only materials then at my disposi-

tion for commencing the survey,—not much, certainly, but quite sufficient for immediate requirements.

I well remember that first day's work, and how enjoyable was the fresh morning air, when the white mist hung low in the valley and the warm waters of the river smoked in clouds of wreathing vapour in the chilly temperature ; but the rising sun like a huge red globe of fire soon dispersed the fogs of night, and its glancing beams made every blade of grass, every leaf and twig and branch of bush and tree sparkle like jewels as the pendent dewdrops flashed in the first rays of sunshine.

After giving Chico his first lesson in ranging a line, and directing him to commence clearing away the bushes and trees and form a picada—a long lane free of obstacles to the vision in the required direction—I rode on ahead by a river-side path, to prospect the ground.

For a mile the path led through a flat covered with small trees and scrub and many flowering plants, amongst the bushes the thorny jurubeba¹ with blue flowers like the deadly nightshade, and the pale green leaves and red ball fruit of a sp. of *Solanum*² were in great numbers. At the end of the mile the Rio Bitim was reached. Here, on the other side, the ground changed to steep forested hills. The ford was at the foot of a small waterfall tumbling over boulders of itacolumite rock ; a stockade was constructed across the fall with an opening in the centre leading into a long basket of plaited split bamboos, and forming an excellent fish-trap. Three fish like roach were in it, known as *piaus*.

This fish-trap belongs to Mesquita and afterwards formed

¹ This plant, that has a vast range all over Brazil, has most invaluable medicinal properties, and is largely employed by Brazilians for diseases of liver, spleen, and stomach, and in conjunction with caju it is a specific for rheumatism.

² The fruit of this plant is used sometimes to make soap.

the means of providing me with a daily supply of fresh-water fish of varying qualities and character.

It was a charming little spot ; a little above, the river flowed through a deep narrow valley between hills all covered with dark forest, grand in its silence and variety of form and colour ; masses of flowers covered some trees, blue, crimson, and gold ; yellow honeysuckle, blue and red convolvuli, and purple passion-flowers (*maracajás*), formed festoons from branch to branch, or hung in long ropes, trailing the ends in the river ; the delightful temperature, the sound of tumbling waters, and the twitter of birds, all added their charms.

Leaving the River Bitim, the path led up a steep hill that extended to and formed rugged precipitous banks of the Parãopeba.

The road became so steep and winding that it was necessary to proceed on foot ; finally an elevation was reached, whence long views of the winding Parãopeba could be obtained. Everywhere it appeared shut in by lofty hills, in parts forested, in others covered with the scrubby growth peculiar to abandoned cultivations. The chilly air of the early morning had now disappeared, and the temperature rose considerably as the already fierce heat of the sun poured its scorching rays upon the forests and valley, absorbing the moisture of the night and of the soil in quivering columns of transparent vapour. The cicadas uttered their ear-piercing whistles all around, and flocks of serenhemas replied to one another from opposite sides of the valley, emitting sounds that rose and fell somewhat like the gobble-gobble of turkeys and yelping of curs.

After obtaining the necessary observations and materials for a sketch-plan, I returned to the men, whom I was pleased to find had readily comprehended my directions with considerable intelligence. If somewhat tired with the first

experience, and feeling more or less red-hot, the rough breakfast picnic in the shady woods was keenly appreciated.

The next few days were expended in completing several more miles of a sketch-plan, and in directing the course of the picadas; the latter had then entered the densely wooded steep sidelong ground bordering the Parãopeba on the farther side of the Bitim, where owing to its rugged nature, and the winding course of the river, my presence was indispensable to watch or change, as occasion required, the direction of the lines of survey. It was very tedious work, for we could only make slow progress in these tangled woods; the men worked well, but huge trees obstructed the route, too big to cut down and necessitating many a *détour*; every tree that was felled brought with it a mass of vines and interlaced foliage. There are very few flowers in the undergrowth of these woods; they only blossom high up above us or in the margins of the forest, where the sun can reach them, but there are numberless things of interest, variegated coloured and curious leaves, strangely shaped vines and parasites, orchids, huge buttressed trees, curious pungent or aromatic odours, the most usual being a strong peppery scent that appears to be common to many plants, such as the canella de cheiro,³ the sassafras,⁴ and the red embira.⁵ Insects alone afford a study, for there are beetles great and small, black beetles, green beetles, blue beetles, and spotted beetles; there is also a pretty butterfly with long narrow dark wings tipped with vermilion, and as it flutters in the dark shade it appears like two fluttering fiery eyes. There are steely-blue mosquitoes, and also grey-spotted mosquitoes, fortunately not in any great numbers, but just enough to keep one moving about, for if one sits down a moment a gentle insinuating prick is soon experienced as a suggestion

³ *Oreodaphne opifera*.

⁴ *Nectandra cymbarum*.

⁵ *Xylofia* sp.

to "move on." The large carrapatos were also by no means absent, and many a score can one pick off his clothes, or occupy himself in efforts to persuade one to let go its grip of his person, by inflicting all kinds of tortures on the insect with matches, nicotine, or rolling the tough unsmashable body between the fingers, but never was a Christian martyr more obdurate in resisting torments, the leathery body holds on by its proboscis most obstinately—in fact it appears to really enjoy a squeeze, until one loses patience and pulls the insect off, leaving its fangs rankling in the skin and likely to produce a bad wound.

There are ants large and small, black brown red and white that sting and bite with varying degrees of venom. On this insect alone a chapter might well be devoted, and especially of how I once witnessed a pitched battle between an army of black ants and the leaf-carrying saúba ants. The blacks got the better of the fight for a time, but the huge soldiers of the saúbas carried fierce devastation into the ranks of the enemy; with their enormous nippers they sliced off the heads and legs of their opponents, who, after a long and valiant fight, retreated ignominiously. Many species of ants will make a clean thoroughfare over the ground and clear it of every blade of grass or leaf; the tracks, often a foot wide, can be traced for inconceivable distances.

Then there are large buzzing "blue-bottles," that deposit a larva that generates a grub⁶ in one's epidermis, and in vulgar parlance, renders one "fly-blown."

There are many varieties of small black bees not larger than a common house-fly—good charitable bees that make excellent honey and do not sting; and rarely a day passed but we found a nest of the mandasaia bee. It is really wonderful how the men found them out; I believe I might have spent

⁶ The birni or Brazilian tsetze-fly.

a week in the woods without discovering a nest. It is only done by watching a bee when it hovers round a tree-trunk without apparently any ostensible purpose; suddenly it will disappear, and an accustomed eye may be able to distinguish a small hole in the trunk not larger than a pea, and in tapping the tree, it will be found to be hollow in the vicinity of the hole; if the tree is felled and the hollow excavated with an axe, the cavity will be found to contain a mass of balls of thin brown wax, about the size of a large walnut, and filled with deliciously fragrant honey, far superior to that of the common English bee. The bees fly about us in myriads, but inflict no inconvenience beyond their stickiness, for they are so sticky that they seem as though they have just emerged from a honey-pot.

In these river-side woods we disturbed many of the lairs of the capyvara or river-pig, and often saw, or heard them ahead, plunge their huge unwieldy bodies with a loud splash into the river and disappear out of sight.

I had commenced work with dirty picadas, that is, leaving many of the fallen *débris* on the ground; but this is a mistake and a false economy; for as we got farther and farther from the fazenda it became very fatiguing work at the end of a long day's work, to retrace our steps over the piles of branches and brambles; and the men were always getting thorns into their bare feet and legs; besides, a clean picada admits of more careful chaining.

It is very interesting to watch these men at work; I have not seen the famed American backwoodsmen, but I do not think they can excel a skilled Brazilian *matuto* in general forest-clearing work; every stroke of billhook or axe is applied just where it should be, and it is rare that a slip occurs. When a large tree has to be felled, the axemen cast a glance around it and aloft, calculate exactly where it will fall, and range

themselves on opposite sides of the trunk. Ready, the axes fall with measured stroke and sure, hewing out wedge-like slices, every blow falls powerfully and unerringly, steadily given ; the men shout between the blows anything that occurs to them, "*O! paú duro*" (Oh! hard wood!), &c., the speed increases, the blows fall quicker, a cleanly cut wedge-like opening appears on each side ; suddenly a startling crack is heard like the report of a pistol, and the trunk moves, and high above us there is a rustle of foliage, and a tightening of the interlacing vines ; the axes are now applied with increased energy, and the chips fly about ; again another report, a few more blows, then with a mighty crackling noise the stately trunk bows to its fate, and amidst the shouts of the men, it falls with a rush carrying with it a load of vines and bushes, crushing to the ground all small trees in its path, and there lies to rot, a splendid log of often valuable cabinet-wood.

After the first few days in the forest, and when the novelty commenced to wear off, many hours passed slowly whilst waiting the slow progress of the picada through the maze of vines and brambles, so to pass the time actively I brought with me an axe and a billhook ; there was many a broad grin at my first attempts and failures, for I was a subject to beware of, and a very dangerous individual to any one who happened to be near—and even to myself, and the unwonted exercise developed such a strange petrifying feeling in the arms ; still I persevered, and after a few days' practice I could work for several hours without feeling any strain.

Out in the open bush and scrub-land the sun's rays are powerful, but in the shade of these forests the air is damp and cool ; in the sun one feels roasted and the skin browns and blisters, here one becomes steamed and blanched.

As we progressed through these woods we crossed many a little forest rivulet of beautifully cool clear water, trickling

over mossy rocks and through banks of delicate ferns, from the gulleys on the steep hill-side. At times we have to climb precipitous rocky spurs of the hills, or exercise gymnastic feats in creeping along or under the steep cliffs often overhanging the river. What a nice place for an economical railway!

The first few days' work was very tiring, as it takes some time to get the muscles into training for the unaccustomed strain. Fortunately it was so, otherwise the evenings would have been very dull in the absence of paper or books, and nothing to do but listen to the very small chat of Senhor Joaquim. But mine host and his wife were very kind indeed, they did all they could to carry out my wishes both in accommodation and food, and I really had nothing to complain of; they provided a liberal and varied supply of comestibles, with plenty of native vegetables.

Eight days after commencing work my trunks and instruments arrived from São José, and most welcome they were, as I had little more than what I stood up in. It was a feast of delight to mine hosts to watch me open the trunks and inspect their various contents; no schoolboys ever assisted with more eagerness a schoolmate to open a hamper of presents than did this worthy old couple—their “ouais”⁷ of surprise at every article were continuous, no matter what it might be. The little excitement extended all over the farm, and I was compelled to clear the room of a superabundance of visitors.

In carrying the survey up the river valley the picadas crossed the “*pasto*” or pasture-land of the cattle of the fazenda; here I met a terrible pest in the form of immense quantities of the small carrapatos, “*mindos*,” as they are called, no larger than a grain of ground pepper; every tuft of grass, and every bush

⁷ Pronounced “wise” or “why.”

was thickly impregnated with them; they hung from the leaves or grass in little round balls, and at the slightest contact with the passer-by they immediately spread out in a swarm over his clothes, like a drop of volatile spirit on a greasy surface. We were perpetually dancing, rubbing and scratching ourselves, beating our clothes with branches, the irritation was maddening; we had to make fires of green wood, strip ourselves and stand over the smoke, then jump into the river whilst our clothes were being smoked, and this performance had to be repeated again and again during the day, and on returning home in the evening it was necessary to take a bath in a tub of a solution of tobacco and water, and then, to prevent the absorption of nicotine, a fresh-water bath afterwards.

Fortunately the pasture did not extend more than 1000 yards, beyond which was *capoeira fina*, or young second growth of small trees, bush, and scrub; but there we met another variety of this abominable insect, the *vermelhos*, or red carrapatos, about the size of a pin's head. Although not in such vast quantities as the "*miudos*," they are more than amply sufficient, and are more difficult to get rid of than their smaller brothers. Tobacco-water and smoke is the only infallible remedy, but the work must go on, and the smart and irritation must be philosophically endured until the evening, when the tobacco and fresh-water alleviate considerably the annoyance; but a few, even so, manage to escape and follow one into bed, and make their presence perceptible just as one is dozing off to sleep.

As the picadas left the neighbourhood of the grazing-grounds and reached thicker woods or more unfrequented lands, these pests disappeared; but there were plenty of other delights to keep us interested, for occasionally the men accidentally disturbed an unnoticed "*morimbundas*" nest

(hornet). Then what a slapping and capering, and a stampede ensued; we were surrounded by fiery needles perforating hands, neck, and faces. What a pity Dante had had no experience of these districts; he might have designed such a nice circle of "divertimento" for his especial enemies; perpetual baking or freezing must be quite monotonous in comparison.

This district is fairly supplied with animal life. We often saw the tracks of the woodland deer, the small delicate gazelle-like matirio, tapirs are rare, but capyvaras^s are abundant and the curse of the farmers, as they destroy a considerable amount of the riverside plantations.

A funny incident occurred one afternoon as I was returning homewards by the picada. I had just crossed a large maize-field on the banks of the river, and not having seen lately one of my men, who was bringing along my theodolite, and being anxious for its welfare, I waited for him. After a time, still seeing no signs of him, I retraced my steps, occasionally calling his name; at last a voice replied to me, apparently close by,—

"N'hor."

"Where are you?"

"Here."

"Where?"

"Here."

"Where is here?"

"Here, in the alfôrge."

"What is the alfôrge?"

"Here, in the alfôrge."

I did not then know that an alfôrge (a wallet) was a name also used for pit-falls, and so followed the voice. It brought me to the fence of the maize-field that I was crossing. Suddenly a voice appeared to come from the ground close to me. I then noticed

^s *Hydrochærus capibara.*

a big opening in the fence, and in front of it a huge gaping hole in the ground, partly covered with sticks and grass. At the bottom I found my man. He had fallen into a pit prepared for the capyvaras, and had severely sprained an ankle; my theodolite had fallen forwards on the ground above and was uninjured, fortunately, for the ankle could be repaired, but not the theodolite if seriously damaged, at least not in this district. A few days afterwards in passing the same place, the pit having been meanwhile re-covered, we found that time a large capyvara at the bottom. The men cut long poles and killed him with glee and satisfaction, shouting, "*O bixo do diabo! o bixo atóá! toma! toma!! toma!!! Agora está morte toma mais uma!*" (Oh, bixo of the diabo! oh, useless bixo! take that! take that!! take that!!! Now you are dead, take one more!).

The ground was often broken by armadillo holes; sometimes we met these animals and gave chase and captured them, for they are very delicate food, but if the animal can only get its head into its hole, raise a few plates of its armour against the sides, and dig its fore-paws into the ground, the strongest man would be unable to pull it out by the tail; the tail may come off, and often does, but the animal will reach its sanctuary. There is also an abundance of pacas,⁹ or spotted cavy, for they were occasionally brought to the fazenda for sale, and there is no better game-meat than this delicately flavoured rodent. I was told that in some parts of the river they are very plentiful. There are also cotias, prihias, quatias, that we often saw in the cleared picadas, and almost hourly are seen huge green camaleão lizards, two feet long, their brilliant colours flashing with a metallic lustre. Jaguars (the spotted ounce) have been shot in the woods, but are now rarely met with; the black ounce, the most

⁹ *Calogenis paca*.

formidable, is yet more rare. These animals are a never-failing subject of gossip amongst the country people ; one hears the most marvellous tales of their prowess and ferocity, and of narrow escapes by travellers and hunters.

In the woods we heard from morn to night, the loud rising and falling notes of the clattering, screaming, gobbling cries of the *serenhemas*, birds somewhat similar to, though smaller than, the African secretary-bird, and minus the long feathers behind the head that has originated the name of the latter.

Of small birds there are great numbers and variety. In the open yards of the fazenda, and along the roads are often congregated flocks of small brown and grey doves, about the size of a thrush, mingled with numbers of canaries, brown, brown and yellow, and yellow and red, and red-headed cardinal-birds. On some trees were immense flocks of a species of blackbird,¹⁰ very similar in appearance and song to English blackbirds, that sustain an incessant whistling of sweet notes ; there were flocks of chattering parroquets and love-birds, and, in pairs or singly, the rich blood-red "*sangue de boi*" (bullock-blood), the ever-industrious and chattering *joão de barro*, who is a very respectable bird and is reported to faithfully carry out the fourth commandment, and desist from working on Sundays. The melancholy monotonous but sweet notes of the *sabiá*,¹ or Brazilian thrush, is also heard all day in various directions. Of game-birds the most common are, *jacus* ;² *mutums* ³ (the king of Brazilian game-birds) ; *pombas de matto*, or wood-pigeons ; ring-doves, *inhambu-assus*,⁴ and *caíçaras*, and screeching *xexcos* ,⁵ and flying from

¹⁰ *Merula flavipes* (?).

¹ *Turdus Orpheus*.

² Penelopes.

³ The galeated *Curassow*, *Ourax Pauxi le Hooco* of Mexico.

⁴ A species of tinamus.

⁵ *Cassicus persicus*. The Brazilian mocking-bird.

bush to bush in a straight line with outstretched wing and a cat-like cry, or perched on the backs of cattle, and feeding on the inflated carrapatos, are scores of black *anus*,⁶ somewhat resembling black parrots. Away up in the bright skies are circling and wheeling in long swiftly described circles, the black carrion *urubus* or turkey-buzzards, or a hawk hangs poised in mid-air, ere it makes its fatal swoop upon a timid little *preha*. Snakes are not by any means so abundant in Brazil as it is usually credited with; but every two or three days we disturbed a large harmless green cobra de São João, or a brilliantly coloured harmless coral-snake, than the wonderful sheen of whose colours, when a ray of sunshine falls upon it, there is nothing more beautiful in nature.

In the shady groves of the modern second-growth woods of this district there is often seen a most strangely beautiful and, as far as I can learn, unknown species of spider. Its head and body, about three-quarters of an inch in length, resembles frosted silver, studded with rows of indentations of gold and emeralds. Its legs look as though made from gold wire. It constructs a large and strong web, three feet in diameter. The fibres of the web exactly resemble threads of rich raw silk, and glisten with a surprising lustre like burnished gold. It is so strong that it offers a palpable resistance to any one forcing his way through. I collected a quantity of the thread, that I wound on sticks as easily as a thread of raw silk. The large owl's-face butterfly,⁷ that loves these shady retreats, is apparently the favourite food of the insect, for I often found the wings of this moth in the meshes of the web.

⁶ *Crotophaga ani*. The razor-billed blackbird of Jamaica. The *Cacalototl* of Mexico. In Cayenne the *Bouilleur de Canari*. In the Antilles, *Bouts de petum*, *Amangona diables de Savannes*, and *Perroquets noirs*.

⁷ *Noctua strix*.

With the exception of the above-mentioned insect pests, the work was really enjoyable, and the climate and country charming, although the sun might be without any inconvenience a little less energetic in its action. The soil of the valley is not altogether so fertile as a first glance would lead one to believe from the aspect of the vegetation that so liberally covers the ground. In many and perhaps the greater part of the area of the valley there are numerous rich tracts of deep-red humus, similar to the dark-red clay soil of the coffee districts of the province of Rio de Janeiro, and also here as there freely strewn with boulders of gneiss and granite; but in many places there is a rocky subsoil only covered with a thin covering of earth; yet even there many trees of considerable magnitude are developed. Pluvius favours most freely these districts with his beneficent gifts, and the consequent moisture and the constant heat must necessarily develop vegetation wherever there is soil for it to take root. Amongst the blocks of rock that appear in the streams and in the fields and the forest are limestone, nodular masses of clay, ironstone, coarse hard sandstone grits, many varieties of quartz, and stone representing the rather ambiguous itacolomite.⁸ Tin has been found in the sands of the Parãopeba, the only locality in which it has been met with in Brazil.

The following is a fair example of any one of my day's work. At early dawn I go out into the semi-darkness and mists, amid vegetation dripping with moisture, to an overflow from the watercourse that served formerly to work the water-wheel of the old sugar-mill of the fazenda, that has long since given up working; here a capital bath was obtained, much to the astonishment of the people of the fazenda, who

⁸ This name is often applied both by natives and by geologists to distinctly different species of rock from mica-schist to hard iron slate and to a flexible sandstone.

religiously abjure such cold water ; then I mount the mule and ride after the men, who have already started. These early morning rides are particularly enjoyable, and as we proceed through the woods, in part lighted up with rays of sunlight, in other parts obscured in gliding masses of mist, the grass covered with heavy dew-drops like a hoar-frost, each dripping leaf a rainbow of light ; the men in front form picturesque groups, each one well loaded with burdens, such as the parti-coloured survey flags, billhooks, axes, instruments, sauce-pans and coffee-pots for breakfast, and calabash for water. Arriving at our destination, sometimes several miles away, the picada-men proceed with their work of demolition, and clear a way through grass, bush, or trees ; down they all come, many a trunk of rich cabinet-wood, or lovely palmetto palm or tree-fern, or flower, or blooming bush falls before the ruthless billhook and axe, to rot and become the home of ants, and beetles, and lizards. A new line is started, or the old one is continued, or may be it is necessary to struggle ahead through the intervening tangled underwood to see how the land lies, or to wait an hour or more to give a new direction ; as soon as I can get away, I ride off to another part where my chain-men are waiting for me, and then proceed with the usual work of theodolite, level, and chain. At eight o'clock the men breakfast during half an hour's rest. At ten o'clock, an old negress from the fazenda has my breakfast ready at some predetermined locality, where a fire has been made ; and my solitary picnic-like meal despatched, and then work on until 5 p.m., dividing the time between the chain-men and the picada-men. About six, or sometimes later, the fazenda is reached ; another bath, a good substantial dinner, and then to work all the evening ; but sometimes the long day's work has been so severe that evening work becomes impossible, or else the

irritation of insect-bites and stings prohibit any settled sitting work. Fortunately, the evening and night temperatures are delightful, the heavy damp dews and mist of night bring the thermometer down to 70° ; in the day it is 78° to 84° . Altogether my time was completely occupied, otherwise this unusual solitary life would have been very irksome to bear. At first I used to work on Sundays, but I soon found that after six hard days' work the seventh becomes indispensable as a day of rest, apart from all religious reasons.

The weeks flew by with marvellous rapidity, and I was far from satisfied with the progress of the survey. The picadas that had been made had long since been surveyed, and further progress was regulated by the long time required to hew a way through the thick woods; many hours were occupied with the axe, for there was nothing else to do, for I could not leave the direction of the work; there were yet many miles before us of dense woods, much of them being virgin forest, a perfect maze of tangled vines and huge trees, where we seemed like so many pigmies struggling against ever-recurring obstacles, sometimes a huge rock, sometimes a giant tree, or a dense mass of vines that takes an hour or more to clear away a few yards. Another torment eventually appeared in the form of considerable numbers of the *'birni*-fly, the already-mentioned buzzing "blue-bottle." The first of my introductions to this bixo was one evening, when working on my plans, I experienced a sharp painful stab in my chest like the prick of a needle on raw flesh. On examining the place nothing was noticeable but a very faintly red spot; taking no notice of it, I proceeded with my work; soon after, again came another stab in the same locality; I felt very much puzzled as to what it could be, and whilst cogitating upon the subject, received two or three more pricks, when I called old Joaquim, who pronounced it a *birni*.

"The deuce, but there is nothing to see: how are you going to get it out, are you going to dig for it?"

"Oh no, I'll show you;" thereupon he fetched two round pebbles, with which he operated by squeezing the habitation of the insect between the stones, and he continued squeezing for several minutes. "Here it comes," he cried at last, and then showed me a little white worm about a quarter of an inch long, like a piece of white cotton with a round knob at the end.

"Truly, Senhor Joaquim, your country is most delightful."

"Ah!" he said, "these bixos are very dangerous, for sometimes they get crushed in the attempt to extricate them, and then there is a sore and often mortification, and '*gente*' often go to '*o outro mundo*'" (the other world).

Later on I became quite accustomed to them, and took one or two out every week; but I superseded the barbarous method of extraction by stones, by making a small stiff plaster of soap and sugar, and covering the small red spot, thereby stopped the enemy's supply of air; this was found to be an excellent and unfailing remedy, for a few minutes afterwards the "bixo" was always found stuck to the plaster, having backed out to see what was the matter. Probably any plaster will do, but I remembered that soap and sugar is a well-known old woman's remedy for "drawing."⁹

My only change in the monotony of the daily routine was an occasional ride to Capella Nova on Sundays, to visit Mr. B——, and settle questions relating to the work. At last Capella Nova appeared quite a centre of civilization and re-

⁹ These maggots develop to an enormous size in cattle and dogs, sometimes two inches long and a quarter in diameter, and their skin is exceedingly tough. The cattle present sometimes most horrible appearances: huge masses of sores. Dogs will patiently endure considerable pain in the extraction, and lick the hand of the operator. Solutions of tobacco or mercury are used as a wash or powder to destroy the pests.

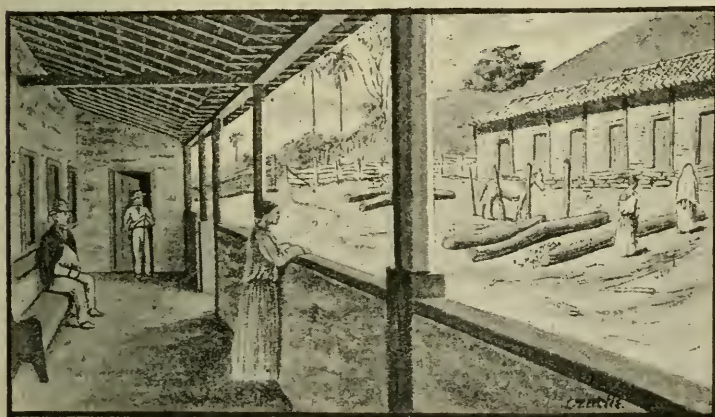
finement, and a collar and cravat were quite "*de rigueur*." But really it was always a pleasant sight to see the assemblage of decently-clad country people, so orderly, quiet, and well-behaved, and one can never get tired of the beautiful bright and varied scenery around the village, for it contains splendid elements of excellent composition of form and colour—the bright blue of the sky, the greys of the masses of clouds accumulated over the distant peaks of the serras, the purples of the far-off hills, dark and light greens of the vegetation, the white of the houses, and the gleaming white cascades of the Bitim, the dark reds of the roofs, the bright reds and yellows of the roads; and form is everywhere varied—rugged distant outlines of mountains, lofty hills and small hills, deep valleys and broad valleys, and the village of houses embedded in foliage. Also Mr. B——'s fare of carefully hoarded stores formed a welcome change of diet; and his supply of English periodicals and newspapers, although two months old, afforded an opportunity of finding out what was going on in the outer world.

On the 5th of April appeared the first signs of the approaching cold season, in the form of an exceedingly white mist, so thick that it was like very fine rain, and whitened one's beard with myriads of little drops of moisture; it was so opaque that it was difficult to distinguish anything at ten yards' distance; it did not clear off until near 9 a.m.—(in June it hangs about until after 11 a.m.;) and the nights were so chilly that a thick rug was a welcome covering.

Now a few words about the life at the fazenda and of its inhabitants may not be out of place. At daybreak every one was up and stirring; old Joaquim used to come into my room for the earliest opportunity for a chat whilst I was making preparations for my daily departure; he was always barefooted, and his coat hung loosely over his shoulders and buttoned round his neck, the sleeves never on any occasion being

occupied by his arms, (except on Sundays when he went to mass at Capella Nova ;) afterwards he usually adjourned to a bench under the verandah in front of the house, where I first found him, and where he sits all day taking snuff, twiddling his thumbs, and gazing upon the yard, with every pebble of which he must be familiar.

If the morning is cold, the old decrepid slaves of the fazenda, about nine or ten men and women, congregate in their rags and shiver over a small fire of sticks in the yard.



The verandah of Fazenda Mesquita.

There are four daughters and three sons of Joaquim. He is nearly a white, but these children vary in colour from white to almost black, and are reminiscences of bygone days when the old man was not so effusively religious as in his old age.

These get the bullocks into the ponderous bullock-cart, saucepans of *feijões* (beans) and huge bowls of *angü* are placed in it for breakfast, with the *foices* (billhooks) and *enchadas* (hoes), and all, slaves included, slowly march off to the roça to collect or plant the maize, beans, rice, castor-plant, mandioca (cassava) pumpkins, yams, sweet and ordinary

potatoes, that are all cultivated in one clearing in a long valley about two miles away on the road to the village. All the rest of the day the place is very quiet ; one or two old negroes, with only a few tattered rags upon them, hobble about ; they are past all work and live entirely upon *angú*, in their wretched hovels not fit for a decent pig. A few old black women assist the mistress in her household duties of laundry-work, cooking and making preserves and cakes, in pounding the maize for the *angú*—the bread of Minas—or in sewing or making their limited wardrobes ; sometimes a neighbour rides up to barter some produce for other produce, when a long time is always consumed in a “*conversa*” (chat), and coffee is invariably produced.

If I happened to be at “home” during the day engaged on plans, the old lady, Donna Joaquina, always brought me some preserve or cake she had specially manufactured for me. She was formerly very wealthy, and was one of the original owners of the São João del Rey Gold-Mine, but being left an orphan and utterly ignorant of reading or writing, she was finally deprived of her share of the property she inherited by the machinations of a padre. There were certainly in the house evidences of former better times, for I was provided with a massive silver lamp of very antique form, made to burn castor-oil with six wicks ; the spoons, forks, and handles of knives even were also of silver, and one day she showed me a considerable store of gold and silver ornaments of old Portuguese workmanship. I wished to buy some as curiosities, but the old lady declined to part with them. She was short and stout, and about sixty years of age, complexion a pale biliary hue ; her black hair well disposed to woolliness, she grows a well-developed beard and moustache ; her features were still good, and her eyes large and bright.

The house was an old ground-floor building of good solid

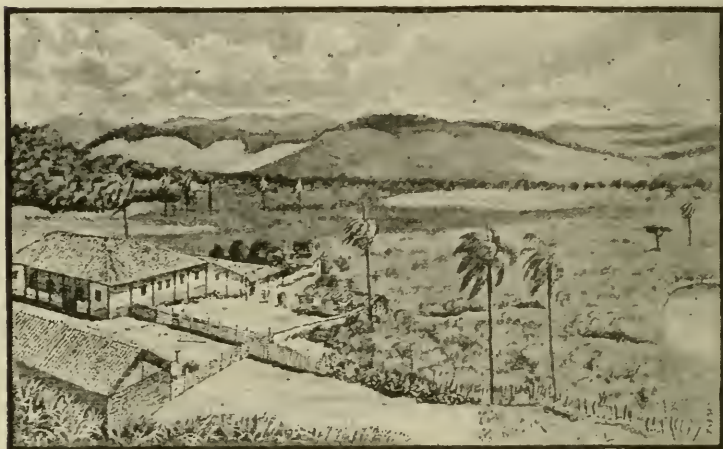
walls of rough rubble and adobe, plastered and whitewashed, though how many years ago it received its last coat of white would be difficult to say. In the front a covered verandah occupied the space between two projecting rooms, one at each end; opposite to the house, divided by an open clean space of ground, was a long line of hovels, the slaves' quarters; behind them a low, grass-covered hill, topped by a clump of palms; to the right was a long valley and wooded hills—the valley was the site of old plantations, then abandoned to lie fallow for many years and develop a second-growth forest; to the left was a broad red road leading to the village, and the broad expanse of the turbid Rio Parãopeba. The fences around the yards are made of the almost everlasting *braúna*¹ timber, placed upright in the form of stakes close together. The pasture-land is enclosed by hedges of enormous aloes,² whose flower-stems attain a height of twenty to thirty feet. It was altogether prettily situated, and were it not for the insect pests of the district, might be made into a very comfortable and pretty homestead. At the back of the house was the "*horta*," where were a few roses and other flowers, a few medicinal simples in common use, several fruit-trees, oranges, sweet limes, figs, mamão, guavas, araças, jaboaticabas. And in the hot sunny days numbers of blackbirds, canaries, bem-ti-vis, João-de-barros in the trees around whistle and chirrup and sing, and make it bright and merry with their notes, and the cadence of the splashing water of the old mill-race close by, yet adds another element of harmony. Well, well, there are many worse places and many worse lives than the old Fazenda Mesquita, and its easy-going homely inmates. About sundown the labourers return from the fields, bringing a load of maize or mandioca, or other produce, the young men and women

¹ Black *jacaranda* or *cabiuna* (*Dalbergia nigra*).

² *Fourcroya gigantea*.

retire to some back room, the negroes pass by with a huge mass of *angû* on a plate or a wooden tray, with a piece of flat wood for a spoon. As the sun sets the birds utter their last notes with the departing lights of day. Old Joaquim at last gives up his seat with a terrific yawn, and comes into my room if I am at home, or retires indoors to sleep; the boys and girls assemble in the verandah for a little gossip, and in an hour all have followed the birds.

I go out into the yard, where a faint chilly damp-laden air



Fazenda Mesquita.

is wafted along, the stars are brilliant in the dark vault above; a fire is glimmering in the 'slaves' quarters, otherwise all is dark and silent. What a blessing I often think it is that I have such a lot of work to do, to keep me well occupied in this sleepy place.

But on a Sunday all work ceases, there is a general tubbing and cleaning up of a week's dirty faces, the young men appear in clean cotton shirts, trousers and home-made coats of striped thick cotton, straw hats, and spurs on shoeless feet. It is a sight to see their hair; it is combed and then plastered thick with beef

fat, both by the young men, young women, and girls. Old Joaquim also appears smartly dressed, even to long yellow leather boots and silver spurs, and the harness of his horse is studded with silver mountings; the elder ones all mount horses and ride off to mass at the village of Capella Nova. The old blacks saunter about, or sleep, or beg of me a piece of tobacco or a comforting dram of *cachaça*,³ which is never refused to the poor old souls.

Whenever I remain at the fazenda on a Sunday old Joaquim always hurries back, otherwise he spends his day at the village with his gossips. I like an occasional chat with the old man; he is fond of expatiating on the good old times he had as a young man, on his former strength and valour (he is yet a vigorous lusty old fellow, and must have been a powerful man in his prime of life); finally he winds up by endeavouring to convert me to his faith. He has very orthodox views of his religion, and is very fond of expounding them and of quoting Scripture, and of expressing sorrow that my soul is in a bad way because I am not a Roman Catholic, for he considers all other sects as pagans. He is always interested when I describe to him some of the modern inventions, and the ways of the outer world, of which he is as ignorant as if he lived upon another planet. The farming operations cannot be considered as remunerative occupations, they afford just a bare homely subsistence; there is no rent or taxes or wages to pay, and the little surplus production of the farm, or the occasional sale of a bullock, affords sufficient means to purchase the few homely requisites that the farm does not produce, such as a piece of printed calico or sheeting, hats, a few iron kitchen utensils, or to engage a carpenter to repair any damage to the family chariot—the bullock-cart.

In pursuing my rambles up and down the valley, canocing on the river, and scaling the most prominent hills, all with

³ Pronounce *kar shár-sar*.

the purpose of sketching in the surrounding topographical features, I am enabled to obtain a comprehensive idea of the general features and their composition. On any hill-top one sees a panorama of hills large and small, some peaked, others with rounded tops, some with gentle slopes, others with steep declivities; all are green with verdure of bush and woods. On the greater part of the slopes towards the valley, the lines of demarcation between the older second-growth forest and the more modern second growth or old roças, is clearly defined by a wall of tall straight tree-trunks, pale buffs, greys, blues, and light browns, showing out conspicuously against the dark backgrounds of their sombre recesses and the dense foliage overhead.

As one notices the considerable areas of the lower bush and scrub, and the many old extensive farms scattered about the valley, it is surprising to consider what a busy, prosperous district this must have been in bygone times, for it is only on difficult ground, steep-scarped hill-sides, that one can still find a remnant of the old primeval forests that are so easy to recognize by the magnitude of the trees, and the huge size, variety, and number of the vines, curling round the trees, twisted around each other like giant snakes, festooned into swings, suspended like ropes, some with smooth stems, some with rough stems; they are round, square, flat, triangular, an ever-changing variety of forms and dispositions. Even the older second-growth woods, through which the greater part of the survey runs, might well be mistaken for virgin forest in its maze of saplings and large trees and tangled bush and vine, as difficult to cut through as the primitive woods.

There is hardly any grass-land (none whatever of natural production), and then it is only found in lately abandoned roças, where the richly coloured and sweetly odorous *capim gordura*, or *capim melada*, or *capim de cheiro*, as it is variously termed, at once takes possession, struggling for mastery with young bamboos and the Brazilian bracken, clambering over

and hiding from view the old charred stumps, the broken fences, the damp-consumed and rotting old huts, and other relics of the nature-defacing hand of man.

The course of the river can in many places be perceived for miles, by following with the eye its sinuous windings amongst the hills; it is usually a steadily flowing stream of brownish-yellow water about fifty to eighty yards wide, with a fall of two feet eight inches per mile; it is freely dotted with black rocks, and every few miles there are very slight falls, but not sufficient to actually impede navigation by canoes, except the rapids of the Funil, near Neotim, that are impassable; yet a canoe is rarely used for transport otherwise than as a ferry from shore to shore. The banks are of soft alluvial earth, yellow black or red; the bushes and trees grow to the water's edge, trailing their branches and foliage in the rippling current. The pasture-lands, *pastos*, of the various farms are tracts of bush and scrub and "edible palmetto" palm-trees, the openings between which are occupied by *capim gordura* or other grasses; in this valley these pastures are invariably the haunt of the *muido carrapatos*, that must be felt to be appreciated. These *pastos* were a perfect bugbear to me, for after having suffered the torment in carrying through the picada, one might be reconciled to think that that is well over, but then there is the thought that they have to be again and again traversed, to level, to re-level, to chain, to take angles, to make cross-sections—the evil day was always postponed, as inevitable disagreeables are always delayed to the last moment.

There are roads, such as they are, that lead from fazenda to fazenda, and paths that branch off from them to the wattle and dab huts of the lower class of labourers, if there is really any distinction of classes in this valley of true "*égalité*."

In my section of seventeen miles, there are not more than ten farms on both sides of the river in the immediate vicinity

of the banks, and then one may travel several miles to the nearest village without passing any other habitation, and probably not one of these farms produces more than is necessary for home requirements. Besides these farms, there are the houses of free labourers, black or brown matuturs, each of whom has his little plot of beans, maize (a veritable three acres and a cow), and who occasionally lend a hand at extra work on the farms, sometimes in consideration of their being allowed to squat on the estate, sometimes for the small pay of six or eight pence per day and their food of beans and angu. Yet, although I paid my hands double the local wages, I was not by any means overburdened by applications for employment, for these labourers are in the habit of being solicited, and not soliciting, when there is extra work to be done, and I am to consider it rather as a favour to me than otherwise for them to enter my service. I found them as a general rule, sober steady and hard-working fellows, who worked from early dawn to sunset, and hard laborious work it is too, is this forest work. They were decidedly intelligent, and quickly grasped the tenor of my instructions.

Goitre is very prevalent amongst the very poor peasants, but is rarely seen in the more well-to-do farmers. The sex seems to make no difference, neither does the colour, for the light-coloured brown and black appear to be equally disfigured. In some instances the excrescence attains an enormous size, like a huge feather pillow hung round the front of the neck and extending to the shoulders on each side, hanging over the chest and forcing the head backwards; they apply various herbs and burnt sponge, but admit that it is almost useless to treat it; a change of locality will often stop its continual development, and very rarely cause it to become reabsorbed. The presence of lime in the waters of the streams and a humid atmosphere are considered the primary causes of the evil; but a poor diet indolent habits and an

absence of all hygiene and cleanliness, either in person or houses, are undoubtedly great promoting causes. It may be, and possibly is, hereditary, for it is principally confined to those born in the infected districts, and settlers from other localities are not so much subject to it.

The weather had been generally very favourable; there had been a few wet days and an occasional Minas storm, sudden and furious onslaughts of the elements, sharp decisive and soon over. On some hot sultry day, when all nature appears to be quivering and vibrating with the heat, when the songs of birds are hushed, the leaves are motionless, and a grim silence reigns everywhere, when the perspiration drips from one's brows in continuous little rivulets and an inexpressible feeling of languor and fatigue steals over one, when the vapour arises from the cracked parched soil in fiercely quivering dazzling headache-producing rays of heat, then a small black cloud will appear in the horizon of the hitherto brilliant cloudless sky. It rapidly enlarges, darkens, and develops into huge opaque masses of dark greys and neutral tints, spreading a deep dark pall of rolling clouds over the sky; its lower and farthest edge is a clearly defined intensely black outline, and casts deep dark shadows over the hills below as it advances onwards; beyond this shade the hills are already bright with sunlight. Suddenly a murmur is heard, then a rustling of the trees, and dense sheets of grey descend to the hills and shut out the sunshine beyond, now with a deep roaring noise the palms are seen to bow as the gust sweeps violently by; with a shriek and roar it is upon us, the rain comes not in drops, it falls in heavy masses like bucketsful of water. A minute or two afterwards, the clouds pass overhead, break into grey fragments, and pass onwards, leaving a final drizzle that soon ceases; the sun again shines, bluey-white fleecy clouds appear, the air is cool and fresh, a delicious fragrance is perceptible, the birds warble their

welcome : the land has had a Turkish bath and is like a giant refreshed.

Now is the hyemal month of June, with its keenly cold nights and hoar-frosty mornings and dense mists, that obscure all nature like a London fog until a late hour in the morning ; but it disagrees with the carrapatos—whether it kills or destroys them is of no consequence, for now they appear not. My prayers for their eternal repose.

This is the month of the bean harvest. The open yard in front of the house is carefully swept clean, and the waggon daily brings loads of the black beans with their foliage and vines cut from the roça ; they are piled high in the yard, and the younger boys and girls romp and tumble about on it with shrieks of laughter and merriment ; their romping serves to tread down the light dried leaves and vines, that are then tossed about with poles and then thrashed, when the beans easily fall from the dry ripe pods to the ground, the vines are carted away, and the beans collected and put in sacks, to constitute the main support of the household for a twelvemonth.

One day a man brings me a note in the picadas several miles away from the fazenda, sent by C——, who informs me that he and Peter had called in on their way down the river, and were at Mesquita awaiting my return ; several strong observations follow and my immediate return is solicited, for they hunger and are athirst, and my cellar and commissariat are locked up and there is nothing obtainable. It was like a voice from the old world to an exile. The old grey had to travel that afternoon much to his astonishment. I found my funny friend surrounded by an astonished audience of all hands of the farm ; he was cracking jokes, quizzing and bantering all alike, in a voluble but queer composition of Portuguese—whether they understood him or not, all were laughing heartily ; old Joaquim was still on his bench, his fat old sides shaking with enjoyment. “*Ah ! Senhor Doutor*

como está meo caro, old chap, glad to see you ; if you don't *anda* up with those *chaves*, I really believe I shall die thirsty, and here is Peter going into a rapid decline for want of sustenance—there will be only his boots left soon." Peter is not his name, but it is the name C—— has bestowed upon him, and he was known by this name during the rest of the time he remained on the staff.

As my friends had come considerably out of their way to pay me a visit, (having left their baggage at Capella Nova,) we discussed a hastily prepared dinner, and I accompanied them back to Capella Nova, as I had to go on to Santa Quiteria, the new headquarters, for consultations. All readers of this work who have had an experience of exploration life in Brazil, can conceive an idea that we three young fellows, in the crudest of healths, were somewhat like the typical midddy ashore after a long cruise ; but it will be advisable to merely state that a huge bonfire was lighted in front of the store of Senhor Ernesto, our host at Capella Nova, that all the village assembled around it ; guitars were sent for, songs and dances were started, and the performers kept warmed with *cachaça* on that keenly cold night. It was more like a sharp frosty night in Europe, the stars were brilliantly shining, the fire crackled and blazed, the audience huddled around its genial warmth, and toasted sweet mandioca and their hands and feet alternately. It was late before the merry crowd separated and we retired to rest.

Towards morning we were awakened by strange noises, proceeding from a thinly partitioned adjoining room, and cries, piteous appeals for help and mercy, a man's and woman's voice intermingled ; we listen : "*Ai ! Meo Deos ! Ai ! Sancta Maria !—Ai ! Ai !—Miserecordia—Ai ! Ai !*" Then followed a strange confused sound mingled with groans. Then a shrill voice cries, "Oh, you brute, you *bixo*, you want to be English, do you ?"

“*Ai! Nossa Senhora!*”

“Yes, you may well call on the *Sanctissima Virgin*, you *pagão*.”

Then follows a confused murmur of groans, ejaculations, scoldings, sobbings, and then a peaceful quiet. Poor Ernesto, he would drink strong beer of Bass, and now he pays for it, in the pains of a deranged system, and the stormy abuse of a scolding wife.

In the early morning he had to turn out to attend to our requirements; and such a comical, woebegone-looking object was never seen, his eyes were red and swollen, and his head enveloped in bandages. He came towards us a walking epitome of melancholy and despair. What a warning to all ye bibbers, to see yourselves as others see ye!

Out in the street of this elevated village the early morning air was cold bright and clear, but in the valleys below us were fields of snow-like mist. Here and there a scattered hill-top appears above the plain of white, like an island in a sea, the sun shines brilliantly on the opaque mass, the same as it would upon a field of snow, and makes the slight undulations of the surface appear like snowdrifts.⁴ It was truly a wonderful sight.

After an early breakfast, we proceeded together for some miles, my companions to their new section below mine, I on to the new headquarters at Santa Quiteria. As we descended from the high elevation of the village into the lower valleys, we entered the regions of mist, whose damp chill embrace appeared to penetrate to our bones; our clothes soon became as wet as though we were passing through a shower, our extremities were chilled with cold, and welcome rugs were unrolled to spread on shivering shoulders.

⁴ The same effect may sometimes be seen in Rio de Janeiro in the cold season from any of the higher elevations of the city.

Now one can understand the popular Minas belief "that the higher a hill, the warmer the air, because it is nearer the sun;" whereas the deep valleys shut out the winds and sunshine, and retain for longer periods the heavy moisture-laden mists, that generates a cold that appears greater than it actually is on account of the dampness.

After riding a few miles, we ascended higher hills; the mists began to clear away, and the country became more open; we then parted and went our respective ways. The road continued to ascend until, finally, all trace of bush disappeared, except a few thickets and clumps of trees here and there, in the gulleys of hill-slopes, or in the bottom of far-off valleys. Once again I am on the glorious campos with its fresh exhilarating breezes and pure air; for after my long sojourn in the woods, it seemed like coming from the obscurity of night into the brightness of day. It is a strange, indefinable feeling of exhilaration, somewhat like what one feels after a long spell of close application to business in London, when he tramps the moors for the first day, or breathes the fresh sea-breezes of the coast. Before us is a long undulating plain of grass-lands dipping into deep hollows whose slopes are chasmed and worn into deep clefts and gulleys by the watercourses of the drainage of these long sweeping grass-lands. Ahead of us we perceive the scattered houses of Santa Quitéria, built on slightly higher ground than the surrounding country; to the right, away on the horizon, are blue ridges of serras; to the left, the land slopes abruptly to the wooded wide valley of the Parãopeba.

All travellers in Brazil are unanimous in their first experience of the peculiar feeling of exhilaration on entering these breezy campos-lands; and I trust that Captain Burton and Mr. Bigg-Wither will pardon me for quoting the following extracts from their works on Brazil. The former says:—

"I need hardly say that nothing can be purer than the perfumed air of these campos ; its exhilaration combats even the monotony of a mule journey, and the European traveller in the tropics recovers in it all his energies, mental and physical. The mornings and evenings are the perfection of climate ; the nights are cool, clear, and serene as in the Arabian Desert, without its sand. Nor are the prairies deficient in the highest beauties of form and tint. There is grandeur in the vast continuous expanse fading into the



The campos near Santa Quiteria.

far distance. The eye can rest upon the scene for hours, especially when viewing from an eminence, whilst it is checkered by the afternoon cloud, whose eclipse seems to come and go, and this gives mobility to the aspect, as it walks over the ridged surface of the light green or pale golden earth-waves, upheaved in the intensely blue atmosphere of the morning, or in the lovely pink tints of the 'after-glow' from the shadowy hollows and tree-clumps glooming below."

Mr. Bigg-Wither remarks, in his "Pioneering in Brazil :"—

"Ye gods! how my heart bounded within me at the long-forgotten sight of the great rolling plains, stretching far away to the dim horizon, to the very boundaries of heaven. In the excitement and enthusiasm of the moment, I left the path and galloped up to the summit of the nearest wave-crest, and there stood for the space of full five minutes, with chest expanded and arms outstretched, inhaling the glorious breezes that came sweeping over the plains direct from the Atlantic. I felt like a prisoner just released from his dungeon. For thirteen months I had not known what it was to feel a breath of air on my cheek—nor to see farther than the sound of my voice could reach. I shouted with delight, so that my attendants, Pedro and Messeno, thought I had suddenly gone mad."

In entering Santa Quitéria there is little to distinguish it from the ordinary type of a Brazilian village; the greater number of the houses are of whitewashed adobe walls and red-tiled roofs with door and window-fronts gaudily painted, and many wattle and dab grass-thatched houses in the outskirts, and each one with a small yard or compound of fruit-trees and wild bush. Although most of the houses are sadly dilapidated and untidy and dingy in their interiors, there are a few of a pretentious character, even to two-storied glazed-window *sobrados*. In the sandy streets there is a little more life than in Capella Nova, there are more pigs, more mongrel curs, spectral fowls, and bony horses; but there are also a few fairly well-stocked stores and vendas, that actually appeared to have some customers. The streets are irregularly laid out, and branch away from the normal praca or square with its barn-like whitewashed church. The population is estimated to be about 2000—that I think is quite an outside number.

I found the new headquarters to be at a large new ten-roomed ground-floor house, with a verandah at the back, overlooking a large courtyard at the rear; it was a bare barren desert of a place, rendered the more uninviting by the chaos and confusion of baggage, trunks, boxes, harness, and all kinds of odds and ends scattered over the place, and always peculiar to our headquarters. The compound at the rear was a jungle of weeds, bush, fruit-trees, scrub, and rubbish.

Mr. B—— was away, probably at a neighbouring fazenda.

The first thing in the morning I rode off with Chico to find Mr. B——. Here, as at Capella Nova, it is clear in the early morning; the distant low valleys appear as broad flat expanses of white mist, apparently unaffected by the rays of the sun upon their scintillating surfaces. A mile or two out of the town I met Mr. B——, and accompanied him back to his home, breakfasted, chatted, discussed the work, and settled questions, and about mid-day started off for the return to Mesquita.

It was rather late to attempt the intervening twenty-eight miles, the greater part of which led by unfrequented rugged paths through dark forests.

We set off at a good pace, and rattle over the pebbly roads of the campos, that lead away in all directions; there are dozens of parallel paths, dozens of diverging tracks, some old and worn into ruts, and deep watercourses; others broad and well beaten. We hurry onwards, over the heath-like and many bright flowers and verdant grass of the Campos, past many a group of brilliant butterflies, past pretty ground-palms, scattered trees, and tall rounded termite ant-hills, we rattle over shaky bridges, and canter along, enjoying the fresh pure breeze whistling through our clothes, onwards out of the bright campos, down steep slopes into the sombre shaded

woodlands once again. Now we must go slower, for the track is narrow and full of holes ; we travel for miles through dark tunnels of foliage ; in the hollows of the way there are quagmires of stiff black mud, and trees have fallen across the path, the branches and boughs hang low and sweep our faces as we pass ; the track becomes still narrower, and appears but little frequented.

“Are we in the right road, Chico ? ”

“Oh, yes, we are going towards the river somewhere ; it's all right.”

We struggle on through the obstacles of the execrable trail until near sunset, when the air becomes chill and the first dews begin to fall ; a shiver runs through one as the damp air strikes us and the shadows darken and no signs of a house appear ; suddenly we enter upon a broader track and soon after sight a farm, Fazenda de Moreiras, eight miles from Mesquita. As there are no lamps on the road, and thick dark clouds are collecting, evidences of a coming dirty night, I inquire at the fazenda if I can obtain quarters for the night. Unfortunately the people are away and the house is locked up, there are only a few old goitre-inflicted ragged negroes, who only have their black smoky vermin-infested quarters to offer.

“No, better the woods. Vamos ! Chico.”

Into the darkening woods, now rustling with a freshening breeze, we push on quickly, but darkness comes quicker ; a dark pall seems to fall around us, tree-trunks appear like gaunt spectres, weird-like forms appear, the wind moans amongst the foliage and whispers to the leaves, toads croak, the tree-trunks groan, the blackness increases, until the prominent mule's ears become absorbed in the surrounding obscurity.

“Hulloa, a stoppage ! What's this, Chico ? ”

“A tree-trunk across the path.”

By light of matches we find a track through the bushes, and regain the road again. Now the reins must hang loosely on the animals, for they are our only guides. We must constantly keep up our arms, for branches and thorns project over the way and sweep our faces and clothes. Now again the mule stops with wonderful sagacity ; by the light of another match we see there is a stout far-reaching branch, that he well knew would carry his rider off his seat. The road descends, and so does the mule, into many a hole ; the wind increases, and with it the rain comes down. I begin to think kindly of those nigger quarters as I think of all the stories told of the jaguars of these woods ; well, we're in for it now.

"Here, Chico, take a *mata bixo*. Where are you?"

"Here."

"Where? Ride up."

We bump together, and I nearly get my eye poked out as Chico extends his hand for the creature comfort.

"Another stoppage! What's this?"

"A large sheet of water."

The matches are lighted only to be immediately blown out with the gusts of wind and rain. Perhaps it is only a shallow pond. We push on the animals, but they refuse to enter the water ; finally Chico gets his horse to try it ; there is much splashing as the horse enters, and soon is heard that deep hollow sound peculiar to wading in deep water. Suddenly there is heard the sounds of much splashing of water, accompanied by exclamations and shouts, there is something wrong.

"What is it?"

"Do not come here, it is deep and impassable," he shouts in reply, and then returns.

I can see nothing, but hear Chico say, "We cannot go on ;

this is a deep wide lagoon full of holes, and can only be passed in daylight."

"Why the deuce didn't you tell me of it before?"

"Oh, I had forgotten it; it is so many years since I passed this way.

"Why, we must be near home."

"No senhor; we are yet a long way off."

"Well, after all, those nigger quarters are not so bad, let us try them; at any rate, they are better than stopping here."

Accordingly the animals' heads are turned, and we retrace our steps through the long blackness, and finally arrive again at Moreiras. There is a light in the huts, the blacks come out in reply to our calls and take a look at us amidst the gusts of wind and rain so bleakly chilly; we are cold wet and furiously hungry, at least I am.

"Here, João, take these animals, and give them a feed of corn."

"*Não tem.* ("Not got any.")

"Well, have you any farinha?"

"*Sim senhor.*"

"Give them a feed of that."

"What! give farinha to a buro?"

"Yes, I will pay you; hurry up, and let us have some *feijões* (beans)."

We enter the low door of the hut, into the smoke-grimed interior, full of smells neither sweet nor pleasant. A fire is burning on the floor and a couple of old black women are crouching over its warmth in their few tattered rags, and roasting a few fresh sticks of *mandioca*; a pot of beans is bubbling on the embers, the smoke fills the room, and makes our eyes smart with its pungency. I sit upon a hide-covered frame of sticks and disturb a number of huge *baratas* (cockroaches) two to three inches long. But Chico's hungry eyes discover that the *mandioca* is done to a turn, so with a "*com licença*"

to the old women, the palatable roots are fished out of the embers. As the freshly roasted sweet mandioca⁵ resembles a flowery potato, with somewhat the flavour of roasted chestnuts, it was duly appreciated by our famishing selves. The old women now prepared us some coffee, good as it always is in Minas, and eventually a quantity of the beans was served to us on an old tin platter—apparently the only one in the hut—accompanied by an iron spoon; but, bah! they were so greasy with rancid toucinho and so strongly dosed with garlic, that even Chico had to say “I pass,” and we both “passed.” We had more coffee, *mandioca*, and another *pinga* and started cigarettes; but how about sleeping? our eyes are smarting with smoke, the place is alive with baratas and perhaps other still more objectionable insects, and the smells are vile. We open the door, cold gusts of wind and rain drive in from the opaque blackness outside, and our black host at the same time arrives.

“Is there no shed or verandah outside?”

“*Nhor não*” (a country mode of expressing *Não senhor*).

Well, this *is* particularly jolly. Mark Tapley would chuckle with delight. I resign myself to become a coursing-ground for the baratas, for I don't like that howling cold wet blackness outside. I try to talk with my black hosts, who do what they can for me, but there is not much gossip or joking in these poor cast-down wretches; the old crones stretch their withered black bony arms over the fire, looking like veritable witches, as the fire flickers and throws transient lights and shadows across their hollow faces, demoniacally ugly features, and poor rags of clothing; the rain enters through many a hole in the roof and forms little ponds on the earthen floor. Well, I will suppose it's all a nightmare,

⁵ Here it is called mandioca manso. In the North it is known as macaxeira, and as aipim in Rio de Janeiro.

it will be all right with the return of glorious day; but verily I feel in the haunt of ghouls—even a casual-ward must be better than this. Ah! Mesquita, sweet Mesquita, there is no place like home. *Boa noite minhas vellhas*, scamper away ye baratas; you don't get an Englishman to nibble at every day, but leave me some of my boots for to-morrow. The sticks are hard, the smells are strong, the smoke is pungent, and baratas are having "grand old times;" but I slept, and slept well.

In the early morning the cold mists steal in and penetrate rugs and clothes, the fire has long since gone out, it is pitch dark, and the smells seem to have increased and become almost corporeal. Ai! oh my back; I feel ruled from head to foot with parallel indentations of the stick bed, like the furrows of a ploughed field; I shall carry away strong impressions of my night's lodging. With a match I see it is four o'clock. "*Chico! vamos embora!*" Awake our sooty friends to fetch the animals."

Outside the rain has ceased, and the fog pours into the open doorway—it is all so cold comfortless muddy wet and dreary. What a grand blessing is a pipe on such an occasion as this! unfortunately one cannot smoke for two hours; but long as the next two hours or more were before we obtained the first welcome faint glimmer of daylight, we utilized them to secure, feed, and saddle the animals; a rousing fire was made in the open muddy farmyard, and grateful hot coffee was prepared.

But even with daylight we are hardly any better off, for the fog is so dense that we can see nothing a few yards away. The negroes are duly remunerated; they receive the unaccustomed coin thanklessly and in silence according to their wont, and one is induced to accompany and guide us across the lake.

The foliage of the forest is dripping with wet, our extremities are icy cold so we dismount and lead our animals to obtain a little circulation by the aid of exercise; the black guide is in front—a dark shadow in the fog—his teeth are audibly chattering with the cold like castanets. I am sorry for him as he enters the cold water of the lake to show us the passage; his complexion is a strange colour, in colour somewhat like green pea-soup. I hand him the rest of the *cachaça* when we reach the track on the further side of the lake that was about 100 yards broad, that daylight showed could not have been forded in the dark by any one ignorant of the ford. In due time I reached Mesquita with a feeling of thankfulness that the reader may well imagine, where a hot bath, a clean change, and breakfast soon effaced the feelings and memories of the unsavoury quarters of the past night.

At Santa Quitéria, I heard that most of the staff had suffered very severely from *sarnas* on the feet and legs, and now I found that I was not to be an exception, for a fine crop of huge boils appeared about the ankles, so virulent and painful that it was impossible to put my feet on the ground, and obliged me to lie on my back with my feet raised; poulticing and Pyretic Saline seemed to be useless. Senhor Joaquim at last bethought him of a certain *curioso*, a local expert in the treatment of all complaints. The *curioso*, a snuffy old *matutor* in spectacles, duly appeared, examined the state of affairs, and produced a long sharp-pointed thorn, with which he gently probed the margins of the eruptions. I am told he is procuring the cause of the disease, a very minute insect that burrows in the skin and creates the constant inflammation; he shows me on two or three occasions the point of the thorn on which he says he has captured the enemy, but I can barely distinguish a very small speck that might be anything, but which he declares is the true cause of all the trouble. He then

prepared a grateful cooling application of a mess of eggs and pounded leaves, and an infusion of anti-febrile orange-leaves, and says that in a day or two I shall be all right, and so it appeared, for the ulcers rapidly healed, and after a week's absence from work I was enabled to return to it.

I was getting disheartened with the long time already spent on the surveys, but no one could do more, as the progress is necessarily limited by the time required to cut the picadas. An experiment was tried of putting two or three gangs at different points at once, but as I could not be in the three places at the same time, it usually resulted in a greater waste of time and labour, uselessly expended in valueless picadas. In some places the tangled vines and bramble were so dense and matted that not more than fifty or sixty yards could be cut in the day.

One day we had been working at a place several miles from the fazenda, and I had concluded arrangements to occupy temporarily a division of a rancho belonging to a carpenter from Capella Nova, who was engaged with his men in building a wooden bridge across the river, near the end of my section. It was late in the afternoon as I hurried off by a short cut to obtain a road with which I was perfectly familiar. On the way I passed a new house, belonging to a small cattle-farmer, where I had often stopped for a glass of milk, and where I never thought I should ever pass the night ; but short cuts are often the longest, as I found to my cost. I passed this house and entered a pathless waste of bushes and small trees through which I meant to work my way to the road, but the short twilight of the tropics is soon over, and darkness falls apace. I seemed to get deeper and deeper in amongst bushes and patches of grass ; I picked my course by the position of the west, but darkness came on so rapidly that the openings between the bushes were no longer visible.

It is about here somewhere, close by, but my efforts only ended in getting ruthlessly scratched by thorns and knocked about by branches. Well, this is stupid and tiresome to be again overtaken by night ; another trial only ended in meeting with impenetrable bush. It is no good, I must return to the cattle-farmer's—he is, I know, a kind old fellow, and will put me up for the night ; but it was no easy matter to get out of this maze of bushes and trees, and it was only when I let the mule have his head that I finally heard the lowing of cattle ; and halted by the side of a deep stream that separated me from the house.

I shouted, “*Ó de casa,*” and soon a reply is faintly heard, “*Ó de fora.*” “O Senhor Ignacio, I have lost my way ; please show a light at the ford.” A light appeared some distance away, and proceeding towards it, I found the old man standing by the crossing ; after passing over, I briefly explained how I had been unable to find the road. Without another word the old gentleman leads the mule to his door, holds my stirrup and begs me to “*apeia,*” and “honour his poor abode with my presence.” Well, that is a kind welcome, for the air is very cold, and the stars are bright and brilliant, like a frosty night.

Senhor Ignacio's house is a well-ventilated dwelling ; it is really more like a huge birdcage ; eighteen feet by twenty-four feet in area, its sides are simply tall poles from the woods, placed together about one inch apart, through which the bleak air freely entered ; one quarter of the area of the floor was divided off by mud and wattle walls with a doorway leading into the old couple's solitary bedroom. The roof above us is thatched with grass. The hut was all new and had had no time to accumulate lumber, disorder, and dirt. Outside the hut and close by, was a large cattle-pen, where several cows were lowing. Inside, squatting on

a hide by the side of a glowing fire of logs on the earthen floor, was the old man's old wife, who upon recognizing me arose and made a curtsy, as though I was entering her drawing-room. Senhor Ignacio had gently forced me to enter, whilst he took charge of the mule, removed its harness, and provided it with hobbles and a feed of corn. I apologize to the old lady for my intrusion, and hope that I shall not greatly inconvenience her by asking for a shake-down on the hide by the warm fire. "Ah! Senhor Doutor, you have come to the house of a poor man, but to such as it possesses, you are heartily welcome," said the old lady, accompanying the words by another bow. The old man soon entered, and after expressing the pleasure and satisfaction it gave him to entertain me, entered upon profuse apologies for the meagreness of his abode, and then, what was better, prepared to procure me some dinner.

He has not much to offer, a piece of dried beef stuck upon a stick and held over the fire, some roots of *mandioca* placed between the embers, a huge calabash of milk and farinha ; but it is offered so kindly and with such frank genuine hospitality, that it is all the more appreciated.

We sit over the fire, smoke and chat, and roast ourselves with the warmth, while our backs are chilled with the cold night air that fills the hut, for there is nothing to keep it out but the sticks of the walls.

The old couple are nearly white, and have evidently seen better times. Mine host is a tall broad-shouldered spare sinewy man, upright and active, ready for a day's work with axe, billhook, or a wild chase through the bush after the semi-wild cattle. His face, hands, and broad hairy chest are burnt a deep brown with continual exposure, his hair is grizzled and wiry, his eyes keen and bright, but the expression of his countenance is peculiarly frank and kind, and

with all his poor surroundings, there is an irrepressible air of native dignity and courteousness.

He told me he was formerly a cattle-breeder on a large scale in distant Goyaz, where he met with great misfortunes and troubles; he lost his sons, some in the Paraguayan war, others by sickness, his cattle died, and he was reduced to poverty; but, he said, reverently raising his hat, "*Se Deus quizer*" (if God wills), we must not complain. There is practical Christianity for the theologians and hair-splitters of creeds.

Well, the old couple listened with grave attention and interest to my brief descriptions of the outer world. To them it was all one vast unknown; London might be in the centre of Africa, or not exist, for what they knew. They had heard there was the *mar* (the sea), to them a species of large lake, and that there were countries beyond it, whence came their forefathers, the Portuguese, *a terra do reino* (the land of the kingdom of Portugal).

It is past eight, but my friends show no signs of retiring, except that the old lady has been busy in the interior of the enclosed room, evidently making her bed, for the sounds of the spreading of sheets were audible. She now returns, the old man inquires of her, "*Está prompto?*" (Is it ready?), and receiving a reply in the affirmative, rises, and with a kindly gesture informs me that "whenever I like to retire, the bed is at my disposition, if I can put up for a night with the poor accommodation of a *sertanejo*."⁶ When I fairly recover from the surprise created by the offer of these good people to give me their only bed and bedroom, and lay their own aged forms on a hide out in this wintry atmosphere, why, of course, I collect all my powers of expostulation to protest with energy against such an arrangement, and thanking them most kindly for

⁶ A native of cattle-rearing districts.

their goodness, forthwith roll myself in my rug by the fire, as the most effective mode of stopping all argument. They seat themselves by the fire and talk in low tones. After a time when almost asleep, I open my eyes, and there still sit the old couple, the old lady nodding her head with drowsiness. "Why Senhor Ignacio, the senhora is evidently tired, why does she not go to bed?" "Não senhor! we shall not go to sleep whilst our guest has no bed to lie upon, and only when he will kindly accept the only one we can offer; it pains us much to see you sleep there." "Good heavens! my good man, I wish I had not come; take the old lady in at once, I beg and pray you." "No;" he solemnly and obstinately shakes his head, and says he waits for my departure. Here is a quandary, that I, a young fellow, strong and healthy, should turn out the best pair of old country people I had yet met and cause them to sleep in this cold mist and fog-impregnated atmosphere, and yet there the obstinate old fellow sits placidly smiling, and his poor old wife can hardly keep her eyes open. I expostulate, I implore, feign to become angry, but the old man is immovable and finally gained his point. It was with a great feeling of annoyance and meanness that I occupied the comfortable bed, but the old couple were so very wilful in their obstinacy that I had no remedy but to follow their dictates.

In the early morning they are up and doing; the old man away in the mists milking his cows, the old woman preparing coffee over the fire that has been kept going all night; the odour of the hot coffee alone serves to temper the feeling of chill and damp generated by the fog as it sweeps in clouds through the open framework of the walls. Some blankets and pillows on a hide, partly doubled up on the ground, indicate where my kind, but too generous hosts have passed the night. Fortunately, my mule requires no searching

for, as he religiously turns up every morning at whatever place he has had his last feed of corn; and here he now is, half-way in the door of the hut, neighing loudly and impatiently, as much as to say, "How much longer are you going to be with that corn? I have been waiting for it more than an hour."

Mine host is yet obstinate, and will himself saddle and bridle the animal. Truly such hospitality as this reminds one of that of the proverbial Arabian.

On my departure, I felt loth to offer the old man any money, but having nothing that I thought he would appreciate, I tendered a few milreis with a request that he would purchase for the senhora a memento of my visit; he firmly but gracefully declined the acceptance, but "would take a little of my tobacco, as," he said, "his old woman was out of any supply." I had offered him some the previous night, but as he told me he did not smoke or drink, I did not think of offering any to the old dame. Need I say that I was happily enabled to send such a roll of the weed as would probably supply the old lady for the rest of her days?

This same day a move was made from Mesquita to the new quarters by the new bridge at Porto dos Gomes, for a temporary residence. Here everything is of the roughest, and the surroundings present that untidy appearance incidental to new clearings and to works in progress, for the forest has been felled in many places, and the trees and bush lie drying for the burning season in August, and huge timbers and wood-chippings cumber the ground around the rancho.

It is now easy to perceive how timber is so costly in this forested country, for although the adjoining forest abounds in splendid trees, yet it is difficult to find two simi-

lar species in close proximity to each other ; consequently, when any particular class of wood is required, it becomes necessary to fell scores of other trees, and open out many hundred yards of road to obtain a tree of the size and quality required ; for the comparatively few timbers wanted for the bridge, dozens of roads had been opened out in the forest, some of them extending for more than a mile, and when after great and patient labour the tree is felled, it is dragged along over the rough stump-intersected path by a score of bullocks to the rancho, there to be chopped and adzed into form. It is the work of great expenditure of labour and of brute strength, no mechanical appliances or labour-saving mechanisms being at all used.

There are many labourers' huts and small farms in this district, but the occupiers are extremely poor and moneyless ; the soil is rich, and where not cleared is densely wooded. In many places huge rocks crop up above the surface of the ground, ironstone and white and crystal quartz being distinctly noticeable, and also a species of hard coarse granulated sandstone. Anxious as I am to push on the work, I am considerably delayed by the dense fogs that prevail every morning, prohibiting all levelling and use of theodolite until mid-day, and even the prosecution of the picada work is difficult. It still continues to be very cold at nights, necessitating a big fire on the earth floor of the ranch.

One day C—— pays me a visit from his new section below mine, to arrange a junction of our surveys. He brought his double-barrelled breechloader, and in the afternoon we strolled through the bush, but a two hours' tramp only gave us a few shots at wood-pigeons (*pombas do matto*) and a few ground-doves ; these woods cannot be considered as destitute of game, but they require dogs and hunters familiar with their recesses, and time at one's disposal to obtain even a chance at any

decent game, such as tapirs, capyvaras, pacas, or a possible jaguar.

In the evening we entered our neighbour's end of the ranch, where the men were amusing themselves in dancing a batuque ; here C—— is in his element, and joins freely in the monotonous yet inspiring chanting songs and dance ; but how cold it is ! there are huge fires burning in the grass-thatched ranch, much to its peril ; but what a weird scene it is, as the men's figures pass to and fro in the glare of the fire, casting gigantic shadows on the dimly lighted background—a scene Doré would delight in, but it is a merry evening. C—— teaches gymnastic feats to the *povo* (people), cracks jokes, and generally keeps up such a fund of amusement, that he is unanimously voted a jolly good fellow (*O senhor doutorzinho e muito engraçado*). My division of the ranch is only ten by twelve feet ; the walls are only sticks, against which we pin mackintosh sheets to keep out the cold foggy night air, for outside, the ground is white and crisp with hear-frost, but indoors we have a bright fire of yule-logs, that yet fails to warm the air of the open ranch ; we shiver on one side and bake on the other. Yet would that it always lasted, for this season is very healthy and so is the district, intermittent or other epidemic fevers being quite unknown. After this event ten days passed uneventfully, by which time I was enabled to complete the last of the surveys of this section and return to Mesquita to finish up plotting and other indoor work preparatory to a final departure. Before leaving, however, I went one Sunday on a long-ago-promised paca-hunt, in the river near the fazenda. The place of meeting is about four miles up-stream, where the river makes a sharp S curve. Here my Nimrod was waiting for me with his five gaunt apologies for dogs ; the mule secured, the dogs were put into the woods, and we embarked in a canoe, my com-

panion taking with him a gun and three long bamboos with stout sharply pointed hooks fastened at the ends ; I was curious to know what these were for, but was simply told they are to "*apanhar as pacas*" (to catch the pacas) ; well I shall see in good time. I took with me my trusty revolver, as I did not possess a gun. As we pushed our way into the stream, at that season of the year very low, showing here a sand-bank, there a rounded or jagged black rock, we heard the barking of the dogs in the woods above the high and precipitous banks of red and yellow loamy earth, capped by dense bushes and trees whose roots appear to hold together the soft soil ; we paddled on and waited at a bend of the river. Polycarpo got his bamboos ready, for the dogs' voices were nearing the water. "*Olha alli ! lá vão os bixos !*" exclaims my man, and paddles furiously to a part of the river down whose banks a few dark objects were moving quickly to the water. A splash in front of us,—a paca has just taken a header into the river,—another and another and another ; now several dark spots appear above the water, more and yet more, the stream is alive with swimming pacas. Now the long bamboos come into play ; one is seized like a fishing-rod, and the hook at the end is adroitly hooked into the neck of the nearest paca that is hauled alongside the canoe, where it is secured and taken aboard with a *coup-de-grâce* ; another pole is quickly taken hold of to secure another paca on the other side ; now they all dive, but it is only for a moment or two, as they reappear a little farther off, and Polycarpo bags another with a shot. More pacas slip or run down the bank, driven by the yelping dogs, who remain on *terra-firma*, howling. Standing up in the canoe, out of five shots I bag two of the animals. We might easily get more, but it would be useless slaughter, for we have already half a dozen. The others scatter in various direc-

tions, chiefly down stream towards the opposite shore, where we see them in threes and fours together, offering capital shots for a small pea-rifle. As we turn back I look upon the scene of labour of months gone by, and wonder if the time will ever come when we shall all, or some of us, be here again to construct this railway ; if not, it will be a long farewell to these woods and fields of maize, these hills and streams, now all so familiar to me ; and one always feels a little *triste* at leaving old scenes of keen enjoyment, even if mingled with many unpleasant reminiscences.

CHAPTER VI.

FROM MESQUITA TO PICADA THROUGH SANTA QUITERIA,
INHAUMA, AND TABOLEIRO GRANDE.

Adeos to Mesquita—Reminiscences and scenes of past incidents of the survey—Good-bye to good friends—An old fazenda—With a comrade pass the evening—A lively night—The Batúque dance—A devil-me-care fellow—New features of the river valley—Reptiles more prevalent—Through Santa Quitéria—A modern fazenda—Over the campos-lands—Delightful climate—Puzzling tracks—An ancient negro—A colleague and his quarters at Urucuha—The queimados and the smoky atmosphere—The serenhemas—Inhaúma—A parched district—Emus—Arrive at Fazenda de Lontra—New colleagues—A new class of land—A yellow fog—Headquarters at Cedro—A grand illumination of campos fires—A thriving cotton-mill.—Great success of the cotton-mills in Brazil—Pleasant society—Sunday at Taboleiro Grande—Under canvas—In camp—Pleasant prospects—Kind people again at my new quarters at Picada—Signs of diamonds.



The SerenHEMA.

ON the morning of the 14th of August I made my final adieux to the good people of Mesquita, the baggage was sent in a bullock-waggon that had to travel about seventy miles to my next section; all hands assembled to wish me "*boa viagem*" and "*até a volta se Deus quizer*" ("a good journey" and "until the return, if God wills it"). True and heartfelt regret, I believe, was kindly expressed at my departure, for my being

amongst them had been an event and change in the dull

monotony of their lives; even the old slaves who had worked for me had fared better than they had long been accustomed to, and had earned a little money that would keep them in tobacco and cachaça for a long time to come.

Both the old people were very lachrymose, and I finally rode away in silence with my two squires, Chico and a tall matutor, Teixeira. I was very glad to get away to new ground, yet I must confess to a feeling of regret at leaving the homely and honest roof of Mesquita, where, after all, so many pleasant days had passed. The four months and a half spent in surveying the ground for seventeen miles of railway, may and will appear an extraordinary length of time for such work to those who have had no experience in surveying, single-handed, a line of railway through exceptionally rough and forested country.¹

There was a three or four days' journey before me (for headquarters had again been moved farther on to Taboleiro Grande), and I shall take one farewell ride through the then old familiar scenes on the way down the valley.

As one rides along how vividly one can recall the many incidents, comical and otherwise, of the progress of the survey! There, in that picada that crosses an old roça, was where one day a bullock was found quietly masticating one of the legs of the theodolite; it had been left unguarded whilst I went ahead for a short time, and on returning, to my agony I beheld the instrument on the ground, and one of the legs athwart the jaws of a bullock, endeavouring to extract such human saline

¹ The above work comprised the thorough completion of *all* plans relating to the section, namely, topographical plans 1-10,000 of the ground for three kilometres on each side of the line; detailed plans of the line 1-4000, showing the contours of ground, divisions of estates, parish boundaries, &c., within eighty metres of each side of the line; longitudinal section 1-4000 and 1-400; special plans of difficult localities; and duplicate copies of all field and levelling notes; and a general report upon the section.

particles as had become absorbed into the wood in handling and carrying it. The animal dropped it and ran away; one of the legs was so bruised and lacerated that it was necessary to have another one made by a village carpenter at Capella Nova. Whether it is that Brazilian grasses are deficient in saline matter I cannot say, but all cattle in Brazil are eager in quest of salt, and will eat anything that is at all saline. Pyretic Saline or Hunyadi János would to them probably be the finest nectar.

In crossing the Rio Bitim at the foot of its pretty falls, (where the fish-trap had so kindly provided many a fine fish,) it recalled the memory of a ducking; a little farther down the stream a fallen tree extends across the water from bank to bank; my barefooted men easily ran across the log, but one rainy day when I was crossing over with, of course, my boots on, I slipped and took a header into the water, amidst the screams of laughter from my unsympathetic men.

Farther on, round that sharp bend of the river where the cliffs, covered with dense woods and great boulders, slope so precipitously to the river, (where we had to struggle along like monkeys, holding on to stumps and branches,) on one occasion one of the men slipped down, crashed through the bush into the rapid stream below, and was swept away many hundred yards before he could get to land again; and that same place had to be passed many and many a time wearily after a long day's work; and there, in the same place, in the little gulleys of the cliffs, are the haunts of the stupid cumbersome capyvaras, hitherto undisturbed in the seclusion of their retreats.

On ascending the wooded hills the river disappears from view, and the track passes through the woods I had so often ridden through. It is like making a good-bye to old friends; a few miles more and we again come upon more views of the distant picadas away to our left in the deep valley below us.

There is where we brought the hornets about us ; there is that bit of wood infested with birnis ; there is that scrub full of carrapatos ; there is where old João, an old negro, gashed his foot with a slip of his billhook—poor old João, over sixty years of age, but hard and tough as an oak. Brought over from Africa a sickly child, he was sold for fifteen milreis (about thirty shillings), and he has been a slave ever since ; he was a comical old fellow, happy in his fate, hopeless of any other, a perfect répertoire of stories, an excellent mimic, and at the daily breakfast kept us all in good-humour with his fun. Again, there under that tall jacaranda, a beautiful coral-snake passed over my booted feet, as I stood motionless watching the glories of its many scintillating colours flashing in the sunlight. There is that scrub where I got lost in the dark, and had to take shelter with Ignacio ; and, a little farther on, appears the bronze-brown colour of the thatch of his hut nestling amongst the bushes and trees. Poor old fellow, it is late in life to commence again, but he is full of hopes, spirit, and energy. Will he succeed ? Yes, to independence, for his wants are small and easily supplied, and his expenses are insignificant. Woods, woods, everywhere woods—wooded hills and wooded valleys ; the serenhemas were calling and answering each other from both sides of the river, the cicadas were shrilly whistling like a competition of locomotives, there was a hum of insects, and the heat ascended above the forest in quivering rays, making the scene appear hotter and truly tropical.

At the rancho near the new bridge building at Porto do Gomes, we must stop to have a final cup of coffee with the builder and his men, my old neighbours. The bridge was well in hand ; it will be solidly built and will last for generations.

Then we passed several small farms, at each of which I was well known, and where I must call to take another

stirrup-cup of coffee, or perhaps a "very wee drapee" of the abominable cachaça; we all call it "muck," "poison," "wretched stuff," "pegs," &c., say we all dislike it, and yet we drink and shall continue to drink it, for in moderation it is a harmless and wholesome spirit. Again through more woods, by mere bridle-paths, up and down hill, past more houses and small plantations, where everywhere I received a "*boa viagem Senhor Doutor*," and "*Deos-lhe acompanha*" (a good journey, Senhor Doctor, and God be with thee). At last I passed the last of my section, near a small farm and a few houses known as Donna Candidá's farm. It was there that C—— allowed an old man to peep through his theodolite and behold the world upside down. His "*ouais*" of surprise may be imagined as he called out to some women in the line of sight, "I am looking at you with your legs up in the air;" they screamed, held down their petticoats as females will do in a gale of wind, and ran away screaming and laughing.

Near sunset we arrived at the Fazenda de Miguel Francisco, the quarters of C—— and Peter, who were then working together. It was a poor tumble-down old place, in plan similar to the arrangement most commonly adopted by the Minciros in the passed-away generations, namely, the front of the building consists of an even frontage of a verandah in the centre, closed in by a room at each end, all covered by a tile roof of old black grey and dark-red tiles, covered with lichens and weeds; the walls, originally plastered and whitewashed, showed great patches of the brown adobe and framework where the plaster had fallen away. A few steps lead up to the verandah from the outside, the stones are worn and loose, and cant up as one steps upon them.

The railing of the verandah is in the last stage of decrepitude, the handrail seesaws on the extremities of a few

remaining loose balustrades, for the greater number have disappeared. Several doorways open to dark interiors, in one of which I see my two colleagues.

In the evening after dinner we adjourned to an adjoining barn, the quarters of all C—— and Peter's men; where we found also assembled the household of the farm, who had been invited to attend a *batúque* (fandango), for the next day, being a Saint's day, they would be enabled to sleep off the combined effects of excitement and cachaça.

As this dance has been several times mentioned, and will be yet again, a short description of it may be advisable. It is usually danced by two couples, sometimes more, who face each other. Two tinkling wire-stringed guitars on that occasion commenced a thrum—thrum, thrum—thrum, and C——'s head man, (a wild gipsy-looking fellow, handsome and graceful as an Adonis, with eyes like a gazelle's, but with the fire of a wild cat, a great dancer and a greater villain,) advances and marshals the dancers, two men and two women; thrum—thrum, thrum—three or four voices suddenly commenced a loud high-pitched wild rapidly delivered impromptu refrain, containing allusions to the "*patrão*" and his merits, the incidents of the daily work mingled with the loveliness of ideal Marias; the other men present joined in the chorus, each taking a second or third, a falsetto, or a bass. With rhythmic songs accompanied by clapping of hands and shuffling of feet, the dance commences, at first a slow measure that is maintained for some time, then gradually it increases in rapidity, the dancers advance and retreat, the women swaying their bodies and waving their arms, the men clapping time with their hands at every chorus. The measured tones rise and fall, then again increase in time, the songs and shuffling steps become fast and furious, hand and feet and voices all keep time; and there is much pantomimic action between the couples. The Adonis, as

master of ceremonies and conductor of the orchestra, stimulated the dancers by word and action, and joined in the songs. The surroundings were a bright fire that burned and flickered on the earth floor, a single-wick castor-oil lamp was hung to a post; the forms of men and women, lightened by the upward glow of the fire, figured prominently against the dark obscurity of the interior of the barn; the music was certainly uncouth, yet the excellent time and measured accompaniments had a pleasing effect, savage and barbarous may be, but so it appeals to the latent barbarism that exists in so many men.²

But all these men so jovially occupied had queer reputations, at least those about whom we could obtain any information; the Adonis especially, was credited with several killings, the results of free fights; he was wanted by the police, and they had made attempts to catch him. It was said that on one occasion they surrounded at night a wattle and dab hut where he was sleeping; but being alarmed in time, he barricaded doors and window, and whilst the police were breaking down the door, he made a hole through the grass roof, slid down the slope, bounded amongst the surprised police like a harlequin, gave them a few punctures to remember him by, and then disappeared into the woods. For us to refuse to employ such a man, would be simply absurd; he was no worse than any other man we might pick up; he was a splendid woodman and, stranger still, was apparently

² These dances are peculiar to Brazil; they are based upon the old Portuguese modes, mixed with Indian customs, and regulated by the monotonous measured African music, the blood of which country enters so largely into the composition of the typical Brazilian matutor. Mawe, in his travels in 1817, describes an Indian dance that he witnessed in Minas Geraes, in which a considerable resemblance can be traced to the batúque, and the aboriginal inhabitants devoted the greater portion of their time to orgies of drinking, with dancing and music.

honest and trustworthy ; and, judging his moral character from a national point of view, was no worse than any village boxer and fighter at home. Do not call him a murderer and assassin, for he would scorn to assassinate any one for hire or in cold blood ; he was bright and intelligent, and would be a faithful follower if he could avoid getting into scrapes. It was about a month after this that he suddenly disappeared, having probably heard that he was about to be "wanted" again.

The next day being a closed Saint's day, the men would not work for any inducement whatever. We had left them early the previous evening, and heard the sounds of revelry all the night through ; some of them the next morning looked sleepy and pea-soupy in colour, but the latter effect is the case on every cold morning.

The day was passed in sketching, fishing, bathing, and in listening to C——'s never-failing topic of cricketing and boating exploits.

The neighbourhood is considerably different to the districts up-stream, for it forms the borders of the *Sertão*, the grass-lands of the cattle districts, with their *Taboelas*, *Geraes*, *Chapadas*, *Cerrados*, *Campos*, *Brejos*, *Capoes*, *Pantanos*, and *Burityals*, all terms employed to designate the various configurations of the ground and its covering.

Even the river-side is comparatively destitute of forest ; the banks slope up into lofty rolling hills, covered with thin tufts of wiry grass, with belts of dark-green capões filling up the gorges and drainage of the hill-sides. The river-views are particularly charming ; the stream winds in a broad sheet of water 100 yards wide, (intersected here and there with black rocks and small rapids,) in and out the enclosing grand amphitheatres of green hills, thinly dotted with short gnarled trees, or clumps of dark forest. The air is balmy and pure ;

carrapatos and birnis are comparatively absent, but a small black bee, common to the grass districts, is very troublesome and annoying ; it does not bite or sting, it worries one by its persistent creeping and crawling by dozens over hands, face, and neck, into eyes, ears, and gets tangled in the hair : brush away a crowd, others instantly take their places ; open your mouth, a number are ready to explore it. Game is fairly abundant ; perdice and cardonas and deer were often met with in the grass-lands and cerrados. Snakes were also unpleasantly plentiful. The deadly *jararaca-assu* and *sira-cucu*, as well as the harmless black *caininana*, green cobra de São João, and lovely coral-snakes, were met with every few days.

But altogether my colleagues were to be congratulated upon their section. The owners of the fazenda did their best after their manner to please their guests, but the interior of the house was a chaotic abode of dilapidation, rubbish, and confusion, not by any means improved by the careless habits of my colleagues. To get to my hammock, it was necessary to work my way amongst hams and harness, chains and cheeses, papers and provisions, bottles and boots, field-books, plates, clothes, survey-poles, instruments, plans, spurs, whips, cases, portmanteaus, stools, and guns, all pitched down anywhere as they were brought in.

August 16th.—A splendid ride over huge undulating grass-hills brought us to Santa Quiteria, where F——, who had just moved down from his section above Mesquita, had taken up his abode in the late headquarters.

The survey left the river at the end of C——'s section and proceeded overland for a hundred miles, avoiding the broken and wooded ground of the river valley, and considerably lessening the distance.

Under the care of F—— the late headquarters presented an air of neatness and tidiness pleasant to contemplate, an

oasis in this land of dilapidated comfortless and often dreary habitations. I remained there that night and proceeded next morning to Orucuha, on the next section, the quarters of O——, who had also lately removed from São José.

A little way out of the town is the large and important fazenda of São Antonio, a large oblong two-storied building with glazed windows, standing in an open grass valley, surrounded by huge rolling hills ; clumps of palmetto palms and a few arucaria pines are scattered about, indicating by their presence the combination of the tropical and temperate regions of these districts. The fazenda, besides rearing cattle, produces sugar and rum (*cachaça* and *restillo*), both sold for local consumption. It belonged to an old white family of considerable influence ; the estates were very extensive, the slaves numerous, and both represented a very considerable amount of employed capital ; but as the lands had been inherited, and as the proprietors had no rent or even taxes to pay, the probable result was a considerable income, but probably not sufficient to leave a margin for a moderate rent and taxes, or a small percentage on any purchase-money expended in acquiring the land. Despite the evident air of prosperity evinced by the size of the residence, the number of store-houses, mill-houses, slaves' quarters, and other out-buildings, and the high, massive wall that surrounded it prison-like ; there is an absolute absence of apparent comfort or snugness ; no verandahs, no trailing vines over a porch, no beds of flowers, the windows are curtainless bare and opaque with dust ; in the open fields in front, lumber, broken-down carts and rubbish, share with fowls and pigs the occupation of the untidy plots of grass and scrub. Inside, however, one will find a patriarchal display of hospitality ; in the long hall or dining-room, the owner, surrounded by his family, will welcome any of the country people around, who according

to their position, sit above or below the salt, as in the old feudal times.

Proceeding onwards we find the roads broad hard and dry, not owing to any artificial help from man, but simply to the absence of any causes to render them otherwise, for passing as we do along ridges, or over long slopes of yellow gravel and grass-covered hills, the drainage of the roads is natural, and there were no woods to keep the sun and wind away ; moreover the soil had changed from the rich red clay soil of the valley of the Upper Parãopeba to hard quartzite gravel ; the vegetation is poor and scanty, consisting principally of thin tufts of wiry grasses, and many dwarfed, flowering shrubs, a few low bushes here and there, and capões in the deeper valleys and hillside gulleys, where the moisture collects and generates a thicker deposit of humus. Whether it is that on these grass-lands in consequence of the views being more extensive and uninterrupted than in the wooded districts, that habitations and small farms appear more frequent, or that the country is really more inhabited, I cannot say, but every mile or two, in one direction or another, or by the roadside, one sees or passes a homestead or hut. The country might with a little alteration be easily transformed into an English landscape, say the South Downs or parts of the Isle of Wight, by making a few lines of hedges and enclosed fields, and by taking away yon blue outline of distant serras there in the south-east ; the temperature was that of a breezy English summer day, delightfully fresh and cool.

Had not my man Chico fortunately known the road, it would have been very puzzling to find, for there were long lines of parallel tracks that branched away to the left and right ; other tracks cross ours, leading to all points of the compass, and only a few appeared to be more trodden than

others. On the way we met but few travellers ; an occasional bullock-team and cart, that makes the hillsides resound with the discordant groaning of the ungreased axles,³ or the music of the jingling bells of a mule-troop, gives a passing change to the silence of the countryside, that otherwise was only broken by the sough of the wind, or the cries and screams of birds, hawks, anus, alma de gatos, canaries, or flocks of parroquets. There was a peculiar haze noticeable in the atmosphere, somewhat like what one perceives on an autumn afternoon ; here it is caused by the annual burning of the grass-lands and roças over a vast area of the country, and always occurs in this province during this month of August.

Near my destination I overtook an old old negro ; his scanty wool was snowy-white, his face, deeply wrinkled with the furrows of old Time, and his legs from the knee downwards were bare poles covered with gnarled muscles, like rugged pieces of old oak : he was sturdily marching along with a gun over his shoulder, a game-bag across his back, and accompanied by a couple of dogs, both good-looking native pointers (*perdigeiras*). He told me he was returning to Urucuha, and that O—— occupied a room in his house. I asked his age. He said he did not know himself ; but from things that he could remember, people calculated that he must be 130 years old. I sounded the old fellow as to his recollections, but he had led such an uneventful life, that he could only remember little local family feuds and squabbles, and that in the long ago the Portuguese governed the country, when he landed in the country as a slave from Africa.

Urucuha⁴ at last ! rather a neat wayside homestead, nest-

³ It is a common belief that the animals will not pull so well without this din. Certainly a little grease would obviate so much friction and require less exertion.

⁴ Pronounce Oo-roo-koo-yar.

ling amongst trees, and prettily situated in a valley near a stream ; there is just sufficient woodlands in the hollows of the hills and by the margins of the waters to break the sameness of the rolling grass, down-like elevations, that constitute the main features of the land. The house was a low long adobe building, roofed with tiles and divided into a number of rooms with doors opening to the front, like a series of cells. In one of these compartments O—— had made himself comfortable ; the floor of his room was of mother-earth, and the walls were only plastered with yellow brown clay, but it was all neat and pleasantly tidy. He was soon seen coming along the road, a stalwart fair ruddy-complexioned Englishman.

Alluding to the ancient negro I had accompanied on the road, O—— told me he must really be a wonderfully old man, for the two huge gammeleira-trees in the front of the house, with trunks three feet in diameter, were planted as saplings by the old man when he had grey hair, that a healthy negro seldom acquires before sixty or seventy years of age ; moreover, his grandson, a youth nearly seventy years old, said that when he was a boy his grandfather appeared to him to be then much the same in appearance. The ancient was yet so vigorous that he had several times asked O—— to take him into the service of picada work. He said he had never had a day's sickness in the whole course of his long life, and yet he smoked the strong native tobacco and occasionally drank *cachaça*—when he could get it.

August 18th.—We started early, to benefit by the delightfully clear and cool air of these high grounds that is so free from the dense morning mists of the Parãopeba valley ; but there was no more blue sky, and it was several weeks before we saw it again. It now appeared as a kind of light creamy buff, with the sun like a large red round disc, as

though we were gazing at it through a smoked glass ; there was a faint odour in the atmosphere of burning grass, but the smoke of the "*queimados*" was high above, and did not trouble one otherwise than by the pale sickly glare it causes.

Another day's ride over the long rolling hills and through patches of wood and scrub in the valley bottoms, where in that dry season the streams were shallow, and often dry, and the roads rugged with hard caked mud, that become awful quagmires in the rains. As it is the main road to the interior, all the principal streams are bridged. Many of these structures were old and rickety, and showed great holes in the roadway, but were still strong enough to bear the weight of ponderous bullock-carts.

On the hill-tops one can never weary of expatiating on the peculiar exhilaration of the atmosphere, (cloudy as it was now with smoke ;) it is a daily enjoyment. As we rode along many a *cardona*⁵ rose from the grass and scudded away with a whirr, and a flight similar to that of a flying-fish.

Later on we passed over cerrado-covered hills, the grass of which had already been swept away by the fires ; the scattered gnarled and twisted stumpy trees peculiar to this form of vegetation were charred and blackened ; the grass lay in piles and tufts like black feathers, that float and eddy in the air with every puff of wind ; the serenhemas are numerous, and their gobbling cries are heard all round, and soon two appear ahead of us on the road.

The old grey was induced to make a spurt ; the birds trotted along comfortably in front of us with a kind of dancing motion, and I seemed to get no nearer. Come Tommy ! get along boy ! Tommy lashed out with his hoof, and grunted his disapproval of the renewed application of the spur but went his fastest. We neared the birds, that had been placidly

⁵ A tinamus.

watching our exertions with evidently amused interest, but as we approached, they suddenly appeared to double up, and tie themselves into knots with their long necks and legs ; the long neck was then suddenly projected from the heap as though expelled from a catapult, and behold they were gone from the vision. There were a few heaps of charred bush and bramble lying about ; I searched the immediate neighbourhood, but could see no signs of them, until I heard their defiant gobbles away amongst some trees to the right.⁶

In the afternoon we ride into the quiet little village of Inhaúma,⁷ consisting of a small praça, about fifty yards square, one side of which was occupied by a funny little old whitewashed church, the others by rows of small door-and-window houses. Streets branched off from each corner of the square, containing a few more detached houses and thatched huts. At one corner was a half-empty venda, the proprietor of which was fast asleep on the counter. One or two heads appeared at open windows. In the streets there was seen a solitary old brown woman, a few naked pot-bellied brown children, and of course the normal pig and mongrel cur ; a broken-down bullock-cart, and a bony horse are the only other signs of movement and life. The lofty bare-looking Serra de Inhaúma lies immediately to the rear

⁶ This bird, the *Dicholophus cristatus*, Ill. ; *Palamedea cristata*, Gmelin ; *Saria* of the Guarany's ; and *Çariama* of naturalists, is a combination of many of the characteristics of screamers, trumpeters, and cranes. Its total length is thirty-two inches. Its colour is umber-brown, with fine zigzag markings of a darker tint. It is essentially carnivorous in its food, and, like its congener, the African secretary-bird, is reported to be a great destroyer of snakes. Its flesh is reported to be eatable, but I found it, on a future occasion, to be hard and quite unpalatable owing to a strong rancid flavour. It runs with astonishing swiftness, and rarely flies beyond a kind of half leap, half flight into the branches of low trees. Although they are extremely shy and nervous in their motions, they can be easily tamed and readily associate with fowls.

⁷ Pronounce Een-yah-oomer.

of the settlement ; there were a few trees in the compounds, but like the scrubby vegetation around, all were leafless brown dusty and wintry-like ; the sky was yellow, and a yellow glare fell over everything, yet the temperature was not by any means high.

I found the companion of my travels from Rio, W——, in a house at the corner of the square ; he had made it clean and wholesome and habitable, but the poor man was laid up with *sarnas*, and could not go on with his work. We all had to go through this initiation into Minas life ; fortunately I had had my turn and could prescribe treatment and give advice. He was well served by an Italian he had picked up, an excellent cook and a warbler of operatic airs.

The next morning I left W—— in the house (as he was then unable to go out for several days), and continued the journey to Fazenda de Lontra, where I heard that two new men had just joined us, and had there taken up their quarters. The physiognomy of the country beyond Inhaúma again considerably changes ; the land is lower flatter and more wooded, with thick thorny underwood and bramble and matted foliage and vines ; the roças are more frequently met with ; there are long stretches of perfectly flat marshy meadows, several miles wide, surrounded by a fringe of woods and scrub. On one of these plains I sighted a considerable number of emus, that are by no means uncommon in Minas. They allowed me to approach within 100 yards and then leisurely trotted farther off ; they are thus so tame, as they are never hunted or procured for any purpose, although their feathers are beautiful in form and texture, but dingy in colour.⁸

⁸ *Rhea americana*, Temminek ; *Struthio rhea* of Linnæus ; the *Tuiju* of Lacépède : *Nandu* or *Nhandu-Guassu* of the Guarany's. The bird is smaller than the ostrich, to which it has been compared, but its head and

Farther on we passed through considerable tracts of leafless cerrado, where the ground was free from under-wood or grass, and as clean as though it had been swept, for the fires had passed over the land, and the winds had carried away the charred *débris*; there are miles of this ground quite wintry in its aspect. It is gently undulating, and in the bottoms the moist ground has kept the bush and vegetation fresh and green, and has defied and resisted the fires. We emerged from the bush on to the yards and buildings of the Fazenda de Lontra, previously hidden from view by the thickets of wood and jungle that surround it; it was certainly, with the exception of Fazenda de Santo Antonio, near Santa Quiteria, the most important farm I had seen on the survey; for the house was clean bright and commodious, and roofed with tiles; the outbuildings and mills were large and substantial; it was quite a modern place, all new and clean, and consequently had not yet had time to decay, and produce those picturesque yet uncomfortable-looking weather-stains; there were cattle-pens, and several bullock-carts in the yard, several negros variously occupied, and other evidences of native prosperity; but no plough, or harrow, not the crudest labour-saving appliance (excepting, of course, the rude monjolo); all farming operations are performed with only the

neck are completely feathered; the wings are plumed and are armed with a hooked spur. In its natural attitude in standing its head is about five feet above the ground. Its general colour is greyish-brown mingled with black, passing into lighter shades in the under parts. Several females occupy a joint partnership in one nest, and conjointly lay from twenty to fifty eggs. The male utters a deep-toned hissing note, and he alone incubates the eggs. It is capable of great speed in running, and a blow from its foot is like the kick of a horse. The flesh of the breast is sometimes eaten, but it is hard and coarse. The plumes of this bird are imported into England, principally from the southern provinces and from Buenos Ayres, as an article of commerce, and are often seen in the form of delicate dusting-brushes.

axe, billhook, and hoe ; and the produce transported in panniers on mules or horses, or in the primitive bullock-cart.

I rode up to an open door of one of a long row of windowless rooms in a detached outbuilding, where I espied inside a deck-chair, a table with books and newspapers, overland trunks, and many other things ; and outside, several suspicious-looking black bottles with a red pyramid on the labels, that alone would convince me that I was on the track of a Britisher. An evident German approached, and inquired if I am "Ze Mr. Veltz ?" "Yes." "Ze patrão, he say you no go farder ; you wait him come back, him come soon, I tell you ; take ze chair and ze paper, I bring you ze beer or ze café. Which you want?" Well, that is an excellent servant—a good servant. "Yes, I will wait a little to see if your master returns."

Shortly afterwards the thud of a galloping horse was heard crossing a bridge near the farm-yard, and a fair-haired young Englishman appeared in sight, with the red-hot complexion peculiar to fair people burnt by the sun. He was B. G—, assistant to D—, who was away at work.

It was yet early and I ought to push on to headquarters, but was tempted to stay for the unusual luxury of lunch—what luxurious fellows ! and to finally decide my determination, a well-known perfume steals in, a very plebeian perfume, a commonplace smell, yet after six months of beans and farinha one cannot refuse the appealing odours of fried eggs and English bacon.

Mr. D— eventually arrived, and my weak resolution to go on was overruled on the plea that D— would ride over to headquarters with me the next day. Another temptation was, that this was a place flowing with milk and honey and goodies of all kinds, for many of the stores were there, and they had to be tested and reported upon before they reached

that bourne—headquarters, whence so few returned. Although strangers to each other, we were fellow-countrymen and colleagues, and in the best of health, so it may well be imagined that our evening was not a quakers' meeting.

We rode away the next morning in an atmosphere curiously like a yellow London fog; happily the smoke-clouds did not descend to the earth, but hung suspended above our heads, in a dense yellow sky that yet permitted free views of the landscape; but the effect of the colour was most strange, as though we were looking through dark-yellow glasses, and it created a most disagreeable biliary sensation. As we rode on, we passed many fires in the roças and in the cerrados, emitting dense clouds of smoke; grass-ashes and cinders fell about and on us in great quantities, that soon gave us a very smutty appearance; there was no wind, and despite a very slight coolness in the air, the atmosphere was disagreeably close and oppressive. It all seemed so strange, and weird, and unnatural, that one almost felt in a dream, and even the birds flew about in a bewildered manner, as though stupefied with the smoke.

The land now shows a series of huge long rounded hills covered with thin cerrado, and intersected by the deep valleys of streams flowing into the Rio Parãopeba, and containing much woodland and several farms and habitations. Finally, after a sharp ride over the hills and plains on hard dry gravelly ground, blackened with the *débris* of the fires, we topped a considerable eminence and reached the headquarters' camp on a hillside by the margins of the Corrego de Cedro.

The headquarters consisted of the first camp of the expedition. A small old ruinous wattle and dab house had been utilized for kitchen, store-house, and men's quarters. A large marquee tent, and a smaller tent comprised the rest of the establishment. The men were grooming and feeding a

number of mules, for which purposes a head of maize is equally applicable, the corn to eat, and the husk, after the corn has been extracted, serves as an admirable curry-comb. Fowls, ducks, and turkeys, and a sheep indicated a plentiful commissariat; they appeared to have free quarters everywhere, for in the big marquee that served for sleeping dining-room and office, the fowls made themselves quite at home; they perched upon the tables, the chairs, the bed, clucked and crowed and laid eggs all over the place, that necessitated an examination before sitting upon anything.

How hot it was in that tent! the thermometer indicated 107° , and outside there was no shade, except that of a few of the scrubby dwarf trees peculiar to the cerrado. The place was in a hollow, and quite shut out from any breeze; it was steaming hot, and the best thing we could do was to go and lie down and tumble about in the stream close by until Mr. B—— returned. We found newspapers, umbrellas, and a means to prevent any possible chill; we formed a curious "Greek and antique" group in the water, but it was cool and pleasant.

Our absent chief returned in the afternoon with another new man, a Mr. H. G—— who had accompanied Messrs. D—— and B. G—— from Rio de Janeiro in quest of a change of climate for a chronic chest complaint from which he suffered. He had met them on the steamer on the voyage out, and had volunteered to join the expedition; although he naturally had had to rough it very considerably, he was much benefited by the Minas climate, but the then smoky atmosphere was exceptionally unpleasant to him.

In the early evening, a Mr. Nicholson, the practical manager of a neighbouring cotton-mill, arrived on a visit, and later on, finding such limited accommodation for us at the camp, he was good enough to invite us to his house.

As the darkness of evening deepened, the sky became bright

with the reflection of the many fires far and near, and away to the east the bold outlines of serras were distinctly visible, illuminated by the long lines of flashing fires on their hill-sides and ridges; it was a strange and interesting sight to watch the masses of forked flame darting here and there, now flaring into a sheet of fire and leaping upwards into the darkness, or momentarily subsiding to gather as it were renewed power, and leap into great lurid flames, sending into the sky detached clumps of fire and clouds of sparks. The ridges appeared as though they were lighted by innumerable flickering lamps. The range of the conflagration must have been many miles in extent.

After a dark ride of two miles through bushes, woods, grass-land, and the clean cerrado of the hills, we arrived at our host's residence, an exceedingly neat and clean cottage, with a verandah along its front. Mrs. Nicholson welcomed us to a civilized tea-table, where the unaccustomed neatness and comfort appeared quite strange. He was a *ci-devant* Anglo-American mill-hand, and now, with his wife, superintended the working of the machinery; he was well paid well housed, and lived in a lovely climate; everything was provided for him, and he need not have had a care in this world.

Later on, we adjourned with him to the adjoining residence of the mill-owners, Senhores Mascarenhas. There we found a large commodious and neat house with glazed windows. Its internal appointments, like all the better class of Brazilian country-houses, would strike a European fresh to the country as being bare and meagre, and devoid of the little nick-nacks that so greatly influence an air of comfort to an English taste; yet even its comparative bareness produced a sensation of coolness that was very desirable in such warm weather. The proprietors, white Brazilian gentlemen, welcomed us frankly and hospitably. A pleasant hour was passed

in chat and piano music by Senhor Bernado, after which we were shown our clean comfortable rooms for the night.

In the morning we were up early to inspect the mill. The mill receives the raw uncleaned cotton, delivered at the door by the country people, who grow small plots in the neighbouring Rio das Velhas valley. The cotton is ginned and spun into yarn, and then woven into a coarse heavy soft cloth of two qualities, the better sort being used for coarse shirts, coats, and trousers, and the coarser variety for sacking. There were eighteen looms, that with the rest of the machinery, were driven by a fifty-feet overshot water-wheel well and substantially made. Everything was in excellent order and method. The whirr of the machinery and the excellent discipline maintained in the work-rooms was a novel scene to find in the interior of Minas. The factory had been only put up about three years, and the profits had been so large that the cost had been almost all returned. It is such a success that the proprietors were then about to put up another one at Curvello, a few miles away. At a first glance it would not appear to be a well-chosen locality, for very little cotton can be seen in the countryside ; it is not really such a favoured cotton district as other parts of Brazil, yet the quantity supplied was amply sufficient for the requirements of the mill, and was bought at a very cheap rate.

A little to the rear of the store and factory buildings was a long row of cottages for the workpeople of the mill, men, women, and children ; their daily meals were provided in a large barn-like building adjoining. They appeared to be contented and happy ; they were decently clad, were clean in their persons and in their rooms, thrifty, industrious, sober, and well-behaved. What a change industry and discipline and a good example had created in these people ! what a change from their normally thriftless, semi-starved, and

useless lives ! Excellent and strict discipline was maintained, and all talking was prohibited in the factory, except what was absolutely necessary for the service. This example of Brazilian administration can only be highly commended, and proves what can really be done with the country people in good and proper hands.⁹ Returning to the house, we found there Mr. B—— with H. G——, and a new interpreter, a Cornishman, from the mines at Morro Velho ; also several Brazilian gentlemen, friends of our host. There was much bowing and passing of compliments, but after the ice of ceremony had thawed, we found many a genial and jocular nature under the assumed “society manner” that an educated Brazilian will assume or drop as he does his coat. The black coat is the war-paint of the “*doutor*,”—I prefer him in a dressing-gown, ceroulas, and slippers ; he may be rather slipshod in appearance, but he feels comfortable, at his ease, and is consequently natural, and his good points come to the fore. Our friends all being bachelors, the lady element was absent, but notwithstanding, the large breakfast party was a merry if noisy one.

After breakfast we all rode over to the village of Taboleiro Grande, about one mile away, some of our friends intending to put in an appearance at mass. It was a pleasant ride over good roads in pleasant company. The village is very prettily

⁹ I was so impressed with the merits and advantages of this undertaking that when I returned to England in 1876 I sought and obtained a reliable detailed estimate of prime cost and working expenses of such a factory in other and yet more advantageous parts of the interior of Brazil, and allowing for all possible adverse contingencies, the results showed not only a possible but a probable profit of forty to fifty per cent. per annum. At that time there were not more than a half-dozen cotton-mills in all Brazil, now there are sixty-two, and all are prosperous, especially those of the interior, where the raw material can be bought cheaper and the product sold at a better price than on the coast, independently of the cheaper labour of the interior.

situated on an elevated plain, surrounded by serras, and contains about 600 inhabitants. The houses are detached and form the sides of a square, and the streets leading from it ; in the middle of it, is a small neat and clean church, amidst a grove of palmetto palm-trees. At one of its corners is a little structure somewhat resembling in form the theatre of Punch and Judy, but a closer inspection showed it to be a belfry. Adjoining the church was the canvas booth of a travelling circus, and as the bell of the church ceased its clatter on the termination of mass, the bell of the circus commenced ringing, so that the devout went from the church doors to the neighbouring equestrian performance. What a heterogeneous crowd it is that one sees on a Sunday morning in an ordinarily thriving Minas village ! There are important *fazendeiros* (country squires), white and whitey-brown on prancing steeds ; well-clad farmers, white and brown also well mounted ; *matutos* and *sertaneijos* (labourers from the woodlands and cattle districts), some mounted, some on foot ; the wives, daughters, mothers, and sisters accompanying their male relations either on horseback, or pillion-fashion, or on foot. What colours they carry ! it makes one's eyes water to see them. There was one very brown stout lady, with a yellow straw hat trimmed with artificial poppies, wheat-ears, and sky-blue ribbons ; a pink dress of some light texture, studded with bright yellow ribbons and blue buttons ; a green shawl, and crimson scarf around the waist ; and, finally, high-heeled, patent-leather shoes, evidently carefully reserved for these occasions. Amongst the very young girls and children there were a few pretty faces and figures ; but their secluded lives and greasy diet soon mellows their beauty with the "sear and yellow leaf" of dyspepsia and obesity, or the opposite, leanness.

Amidst the turmoil of noises produced by the hammering

of the church bell, the beating of the big drum of the circus, and an occasional bang from a rocket, the proprietor shouted his invitations to "Walk up, gentlemen, walk up, just about to commence," making the scene appear anything but suggestive of a Sunday morning ; the people take their diversions very quietly, even apathetically ; those that cannot afford to enter the circus, wander listlessly to and fro, with less animation than afternoon loungers at a seaside esplanade, the females of each family marching solemnly in front of their male friends, the latter jealously watchful of any possible signals of intrigues with the opposite sex. We stand at the door of a large store, and as the crowd pass by, all salute our friends, each according to his kind, the *fazendeiros* with a hand-wave and a "*Como está? Como passou?*" ("How are you? How goes it?"); the smaller farmers with *Bom dia, Senhor*," and lifted hats ; the labourers extend their hands for a blessing, uttering "*S'cris*," with heads uncovered ; all know our friends, and they know every one.

Nearly all the men and women wear boots or shoes, but they look unaccustomed to their use, as they really are, for the walk from home is always performed barefooted, until the village is approached when the shoes are put on, or a treasured fine ribbon is carefully unpacked and fastened to a dress ; for it is quite a common sight to see them completing their toilettes by a roadside stream ere entering amidst the "*poço*."

It was a bright pleasant day, although the sky was still rather yellow with smoke, and the bright colours of the women's dresses, that individually are so discordant, are, combined in the crowd, in keeping with the bright surroundings—the gaudily-painted stores and houses, and the bright foliage of palm-trees and flowering shrubs that separate the houses one from another. There was no

quarrelling, nor noisy merriment, nor drinking ; the people were orderly and solemn, and very "respectable." In fact, in no country in South America are there more peaceably disposed peasants than these of Minas Geraes ; there are no *pronunciamentos*, no revolutions, or election scrimmages for a President, as in the adjoining Republics ; but, occasionally, in some provinces, there occur local tussles for the choice of rival deputies that sometimes terminate in fatal incidents.

In the evening, we, that is the English, returned to camp, and D—— went back to his work at Fazenda de Lontra. This, my first night under canvas in Brazil, recalled many old Wimbledon associations, but in place of the Wimbledon earwigs we were here supplied with Brazilian jiggers, or *chigoes*,¹ as I afterwards found to my cost when they took up quarters in my toes. Again, a tent is not always the most desirable of places in a tropical climate, for it is an oven in the daytime, and a generator of smells—combinations of codfish, boots, clothes, ham, fruits, and one or two other minor ingredients ; at night it is chill and cold, saturated with dew, like sleeping under a suspended wet sheet ; and those wonderful camp beds that are sent out from England are carefully designed for promoting early rising ; they creak and waddle ; there are always several prominent mountain ranges or deep valleys on their surfaces, and no one can depend on their not suddenly collapsing at inconvenient moments ; and, further, nothing will make them flat, they will have a slant, like the dip of a magnetic needle, but the direction is variable. What is far more comfortable is a home-made, homely bed of sticks, laid lengthwise, upon two cross-bearers, supported by four forked sticks, the whole strewn with dried grass and covered with a rug and the luxury of sheets.

The next morning I rode off, accompanied by H. G——, in

¹ *Pulex penetrans*. *Bixo de pé*.

search of new quarters, on my next section below. As we rode along, I congratulated myself that my new survey would be in a pleasant locality, amidst long rolling *chapadas*, covered with thin cerrado, through which we shall be able to run the picadas with little cutting. At the end of the two hours we reached Fazenda de Picada.

The appearance of this place showed that at last we had reached the often mentioned Sertão or cattle districts, for this fazenda was evidently a cattle-farm by the large number and size of the currals, or cattle-pens, surrounding it. In many ways it was different from any of the farms I had yet seen. There were two large ground-floor residences with verandahs along the whole of one side of each; one house was occupied by the father of the family, and the original proprietor of the land; the other by his married son, Senhor José. Near these houses were large barns and rows of cottages.

The farm is situated on the brow of a hill covered with thin cerrado; at the rear of the buildings the ground slopes to a stream and narrow valley, where the vegetation is dense and tangled, and the soil, moist and rich, produces an abundant supply of maize and beans in the *roças*. In the N. and N.E. directions are seen several ranges of hills, with scarped slopes of rock. Surrounding the buildings are large bare yards of bright red soil, enclosed by fences of the everlasting *Aroeira* wood, and the light grey-green scrubby vegetation of the cerrados; the glare of the red soil, the white walls of the farm-house, and the many bare leafless trees, create rather a harsh aspect; but the air was so fresh and wholesome, and the scene looked so bright, that it really produced a feeling of lightness of spirits, so different to the sombre gloom and depression of the forest-lands.

Senhor José welcomed me in a frank straightforward manner,

and said he would be very pleased to do anything for me, and that his house was at my orders. Finally, he showed me some untenanted rooms in the row of cottages facing his house. Upon asking the amount of rent, he was good enough to say, "Oh, I do not require them, they are no use to me, you are welcome to them; and why should I charge you rent?" He further told me that plenty of labourers could be obtained at one milreis per day, but I must provide them with food.

On the way back several *serenhemas* got in front of us and contentedly trotted along, until I tried to bag one with a shot from the revolver, when they vanished from sight almost as though they had evaporated. Further on, G—— pointed out to me a *barranca* on the hill-side, where some Americans a few years ago had worked for diamonds; they found some, but apparently not in sufficient quantities to be remunerative, for the work was soon abandoned.

CHAPTER VII.

SURVEY OF NO. II. SECTION.

Great change in the new section—Character of the country—The Cerrados—Productions of the district—Habitations—Temperature—A dry season—The quadrupeds and birds of the district—The Brazilian skunk—Fazenda Picada and its inmates—A pest of bees—A troublesome *camarado*—Excellent climate—A country Brazilian marriage festival and its incidents—A dismal residence—A carrion *armadillo*—A lonesome and weird valley—Muscular vitality of a dead boa-constrictor—My camarados—First man down with fever—A pleasant fazenda.



Cedro camp.

ON the 25th of August I took up my quarters at Fazenda Picada, and immediately proceeded to work. What a change it is from the rugged ground and dark forests of the valley of the Upper Rio Parãopeba, to these miles of long rolling hills all covered with the sparse vegetation of the cerrados, where

the breeze blows so unrestrictedly, and even on the days when the smoke-fog obscures and makes the sky yellow, there are gusts of winds that eddy amongst the distorted trees, and sweep away the fallen dried leaves in drifting whirling columns of dust and burnt ashes.

The new section comprised a length of thirteen and a half

miles, and occupied seventy-eight days to survey, a very favourable contrast with my first section of seventeen miles, that required 135 days to complete ; yet it is impossible to estimate what time may be necessary to lay out a length of railway in Brazil. It not only depends upon the abilities and industry of the engineer, but far more so upon the nature of the country—whether it is rugged or flat, wooded or grassy. At that time a large survey was being made in Parana, and one section, that in a straight line measured fifteen miles, occupied a large and well-equipped staff of English engineers nearly five months to survey the line of railway.¹

This section was a continuation of the overland survey, that avoided the rugged ground of the river valley and considerably shortened the line.

The configuration of the ground is affected by the near proximity of the Serras do Curvello, do Gentiho, da Onca, and do Motómbó, the watershed of the Rios Parãopeba and das Velhas ; they form a series of detached groups divided by deep valleys, and send out long wide spurs towards each river ; some of these spurs are ridged, others are flat and two or three miles broad, and divided from each other by low broad or narrow precipitous and deep valleys. The slopes of the serras are either scarped bluffs of grey-brown gneiss, or steep declivities covered with grass and a little bush ; their summits, fringed with cerrados, are irregular in form and of varying altitudes, from 300 to 600 feet above their bases. The flat summits of the spurs that form the undulating hills of the surrounding country, termed *chapadas*, are invariably covered with thin cerrado, peculiar to this designation of ground. At a distance, or from any height, the land appears to be covered with woods, yet it is so open that a horseman can freely travel in any direction, unless stopped by the denser vegetation and

¹ "Pioneering in South Brazil," by Thomas P. Bigg-Wither, p. 155, vol. ii.

streams of the valleys, or by the numerous deep ditches that take the place of hedges, and serve to mark the boundaries of property.

The appearance of these cerrados resembles a stunted fruit orchard in England; the trees are wide apart, dwarfed in height, extremely distorted both in trunks and branches, and the bark of many varieties much resembles cork; the foliage is generally dry hard rough and brittle; the trees resist equally heat or cold drought or rain. After the *queimados*, or annual burnings, the intervening spaces or surface of the ground between the trees, are as clean and level as a school playground, but often strewn with white or crystal quartz pebbles; previous to being burnt, there is a good deal of low bushes and flowering shrubs, and of thin tufts of wiry grass that after one year's growth become so dry and acrid that it is useless for pastoral purposes, but after being burnt previous to the rains that set in usually in September and October, the grasses rapidly spring up in young green shoots, affording excellent grazing for cattle.

From what I can learn, these cerrados are the primitive covering of these *chapadas* or flats, for there is no evidence to show that they were ever covered with forest; the hard-baked, marly-clay soil prevents a rapid absorption of moisture, and the evaporation being very great, no time is allowed for it to percolate the hard ground.

The principal trees are the *Piqui*,² the *Pau Terra*, the red *Angico*,³ the *Arociro*,⁴ the stony *Angelim*,⁵ the *Barbatimão*,⁶ the *Capitão do Campos*, the *Patari*, the *Jacaranda do Campos*,

² *Caryocar Brasiliensis*, gives an oily mucilaginous fruit.

³ *A mimosa* that yields great quantities of a beautiful red gum. *Pithecolobium gummiferum*.

⁴ *Astronium urundeuva*. This is the hardest and most useful wood of the cerrados, it is dark red in colour, takes a fine polish, cleaves easily, and resists weather wonderfully and has many medicinal properties.

⁵ *Acacia adstringens*, Vellozo; or *A. spectabilis*.

⁶ *Stryphnodendron barbatimon*, a dye wood.

the *Cedro do Campos*, the *Mangabeira*,⁷ and the *Tingui*,⁸ most of which are deciduous *Leguminosæ* and *Acacias*. There is more wood than in the campos around Barbacena, but not such a variety of flowering shrubs, bushes, and small plants. In the watercourses and gulleys of the lower slopes of the *chapadas*, and in the low ground of the valleys, the vegetation is dense and of quite a different character, varying from low thick bush, to a matted tangle of trees, underwood, and vines, and hanging bearded *tillandsias*. The limits of these jungles, or *capoës*, as they are called, are clearly defined, and create an appearance as though all bush, underwood, and trees had been cleared away right up to their borders. The dips between the hills are the only cultivated lands of the district, and that only to a small extent; here and there one sees a plot under cultivation, or an old plot that has been exhausted and abandoned. The result of this combination of arable and grazing-grounds is that the farmers are both stock-raisers and agriculturalists; but the cultivation of maize, beans, castor-plant, mandioca, yams, and sweet potatoes rarely exceeds the necessities for home, or, at most, local requirements. Sugar-cane is but little cultivated, neither is there any cotton; that comes, I was told, from the richer regions of the valley of the Rio das Velhas. The district is thinly inhabited, for on the borders of the road that traversed my section there was only one fairly well-to-do fazenda, namely Picada, and a small poverty-stricken, squalid broken-down retiro, two wattle and dab huts near the commencement, and the small hamlet of Bom Sucesso, consisting of about twenty huts at the farther end.

The climate was all that could be desired, in the day 74° to 78° (F.), at night 60° to 70° (F.). The air was pure and serene, but occasionally for several days or a week it became

⁷ *Hancornia pubescens*, gives a delicious fruit and india-rubber.

⁸ *Mugonia glabrata*, St. Hil.

close and murky, under the pall of smoke that hung suspended overhead from near or distant *queimados* (bush-fires). The rainy season, that should have commenced in September, did not make its appearance until November, and the land became in consequence hard and dry like a brick, all the minor streams dried up, and there were only left two little rivulets in the whole twelve and a half miles ; yet the vegetation in the valleys looked fresh and vigorous, even if rather dusty, whereas that of the cerrados became eventually almost leafless. It was a strange appearance that these bare skeleton trees, and twisted boughs and trunks presented on the wide flat *chapadas*, under the often yellow hazy atmosphere—such an air of drought and desolation and ghouliness ; the air, filled with fine particles of dust and myriads of small insects, was so dry, that perspiration became rapidly absorbed.

There is not such a variety and quantity of fauna as there is in the old cleared woodlands of the Upper Parãopeba, yet there are many songsters, noisy chatterers, and screamers ; of four-footed life there is little to be seen. The spotted jaguar has been killed in the secluded valleys of the Serra and on the borders of the river ; very pretty gazelle-like deers are occasionally sighted in the cerrados ; *pacas*, *cotias*, and *cotamundis* are rarely found even in the valleys, as they prefer the moister lands of the river borders ; there are two species of *armadillo*—one the common *tatu*⁹ so much esteemed for its delicate flesh, the other (found near the old cemetery in front of Paciença, my second residence on the section) is known as the *tatu cavador* or *tatu excavator*, from its supposed proclivity for burrowing into graves. It is brown in colour, about twenty inches in length—not including seven inches of tail—and is probably the *Dasyphus tatouay*. It is diurnal in its habits, and being credited with feeding upon carrion, the

⁹ *Dasyphus septemcinctus* and *sexcinctus*.

country people refuse to eat it. There are also occasionally to be met with, *guaras* (the Brazilian wolf) *maracajás* or wild cats, *marmosets* and squirrels, and finally, a beautiful little animal, the *tiririca*, that has a powerful weapon of offence in a capacity for ejecting the most abominable stench it is possible to conceive, for one day when the men were opening a picada through a belt of woodland ahead of me, I saw them drop their billhooks and axes and hurriedly run away, shouting, "*O tiririca, o que bixo do d—*" I knew not then what was a *tiririca*, and advanced to satisfy my curiosity. I had not gone far before I received a whiff of a most abominable smell; I waited for no more, I was amply satisfied. It can only be compared to an essence of a mass of putrefying animal matter—it is horrible. I could not see the animal, but by the description received from the men, it must be very similar to Humboldt's skunk.¹⁰ In ten minutes the men returned to work, for the animal had retired and taken its odours with it.

In the same wood I was very much interested in watching the gambols of a large number of *marmosets*.¹¹ I was standing quietly in the picada, when hearing a little chirrupy whistle I perceived amidst the branches of a tree above me, two little heads peering at me from behind a bough; they immediately withdrew as soon as my glance was noticed, then cautiously raising their heads, again bobbed down at once. One then scampered away, evidently to fetch others, for soon the whole tree became gradually alive with them; whenever I pretended to look down I could see them all eagerly scanning me; when I raised my eyes, the heads all bobbed out of sight, and such a chattering chirruping whistling was kept up all the time; whenever I moved they uttered screams of alarm, and some scampered away only to immediately return and

¹⁰ *Mephitis Humboldtii* (?).

¹¹ *Hapale Jacchus* or *Simia Jacchus*, Linn.

continue their game of "Bo-peep;" there must have been many dozens of them in the tree before I left.

These pretty little animals are so sensitive to cold, that they never leave their haunts until the sun is high and all the night's dew has disappeared. They usually inhabit the hollows of old trees, where they huddle together in great numbers for mutual warmth.

Amongst the birds there are considerable quantities of *screnhemas*¹ (or *Cariama*, as the word is usually spelt by naturalists), that seem to frequent equally the open grounds of the chapadas and the woodlands of the river. There is the large brown semi-carrion hawk, the *caracara*,² about thirty inches long from beak to the tip of tail; *cardonas* (a quail-like species³) in considerable quantities; black *anus*, brown and white *alma de gatos*, bluey-green parrots⁴ and clouds of noisy chattering parroquets. In the neighbourhood of the fazenda, in the yards, or on the fruit-trees were numerous slate-backed *ouzels*,⁵ or *passo pretos*, pale greeny-blue chatteringers,⁶ the gorgeous crimson *sangue de boi*, noisy black and gold *xexeos*,⁷ and great flocks of small ground-doves (*rollas*), that gave me many a delicate breakfast. But it is in the old clearings where there is most life—the old decaying fences, stumps of trees, and huts are alive with great numbers and varieties of beetles and insects, beautiful⁸ repulsive⁹

¹ Pronounce *See-reen-yemma*.

² *Polyborus brasiliensis*, (Gm.).

³ *Tinamus*, sp.

⁴ *Chrysotis festiva*.

⁵ *Merula flavipes* (?).

⁶ *Tersina ventralis*.

⁷ *Cassicus persicus*. Pronounce *shey-sheus*.

⁸ The diamond beetle. *Entimus*.

⁹ The pale grey lantern-moth, *Fulgaria lanternaria*, has a mildewed and peculiarly disagreeable appearance. Its power of emitting a phosphorescent light has been much doubted by some naturalists, but one I

curious¹ large² or small, and some most offensively odorous,³ like a particularly unpleasant insect that haunts the abodes of uncleanness at home. There are here also lovely little gold and blue *tanagers*,⁴ red-headed *orioles*,⁵ many pretty little *manakins*⁶ and many varieties of the finch family, besides large plump *pombas de matto* (wood-pigeons), and all the other birds and animals that frequent the district, not forgetting the beautiful little blue and bronze lizards.⁷

I established the headquarters of the section at the before-mentioned fairly prosperous Fazenda de Picada, beautifully situated on the summit of a long gently-rising hill, and com-

caught at first gave no light, but after a day's imprisonment, I was surprised to see a considerable illumination in the box in which I kept the insect, quite sufficient to read ordinary type. The bird-catching *tarantula* spider, *Lycosa tarantula*, is also common: a well-known insect, repulsive and dangerous.

¹ The praying *Mantis*, the *Louva-Deos*, or *poe-mesa* of the Brazilians, is a favourite plaything with Brazilian children, who like to see it raise itself up and fold its fore arms (when a sudden noise is made) like a waiter about to set a table, thus its name *poe-mesa*, i. e., lay the cloth. It will quietly receive a fly, that it crushes in the spines of its fore legs, and after taking a nibble, will move its head from side to side with an evident air of satisfaction. Its body, in its early days is wingless, and when developed, they vary from a beautiful transparency to an exact imitation of the leaf of the tree it usually frequents. In gardens, rose-trees are the favourite resort of these insects. There are also long-bodied insects, six inches in length, so closely resembling a dry twig, that it is difficult to distinguish them amidst the branches.

² The hercules beetle (*Dynastes hercules*), and the elephant beetle (*Megasoma elephas*), found amidst the decaying trunks, are conspicuous for their enormous size, three to four inches in length. The long horny proboscis common to both is evidently used as a boring instrument, for I have seen species of the former, in North Brazil, drill holes into coconut palms.

³ The *Diactor bilineatus* of the family of *Hemiptera*, emits an odour that must be experienced to be thoroughly appreciated. It has been described as *cimicine*. This insect presents a curious appearance from the leaf-like appendages of the tibial joints of the hind legs.

⁴ *Euphonia nigricollis*.

⁵ *Amblyramphus ruber*.

⁶ *Pipra aureola*, *caudata*, *leucocilla*, &c.

⁷ *Trachycycius marmoratus*, sp.

manding charming views of the surrounding hills and dales and serras to the east and north-east. The house of mine host is a long low tiled-roof building, with a verandah running the whole length of one side. The rooms are large and undoubtedly airy, for they are all open to the tiles and rafters of the roof above; there is plenty of dust everywhere, and the free use of a broom might be desirable. Senhor José, a brown-haired fair-complexioned but sunburnt well-built and



Fazenda da Picada.

active fellow about thirty years of age, looks more like an English yeoman than a Brazilian farmer. His wife is a rather handsome young white lady with very regular features, large eyes, and long jet-black hair; but her voice is rather too often heard in shrill scoldings of her blacks, and José sometimes appears with a rather worried expression, as though he had been "catching it" also. The brother, Senhor Antonio, who has run into corpulence, passes the greater part of his time in my room, whether I am busy or not. He is quite contented to sit there and patiently watch me, or

handle and examine anything that strikes his curiosity. I had several times wondered what could be his daily occupation, and asked him once if he never worked at anything.

"Oh yes, I work," he replied.

"Where?"

"In the *roças*, or about the farm, or transact a little *negocio* (business) in the village.

"When?"

"*As vezes em quando* (now and then)."

The survey over these *chapadas* was vastly different work to that of the woods; there are no gorges or precipitous side-long grounds covered with sharp stumps, necessitating a weary scramble and tramp home after the day's work is finished; no *carrapatos*, no *birnies*, no hornets—quite an Elysium for a surveyor, for the mule can be brought alongside the picada, or very near, and then there is a comfortable ride home after a heavy day's work. But there were exceptions to these conditions, as the direction of the course of the railway was intersected by long ridges and the deep valleys of streams, and down in the valleys we often found a bit of matted jungle that was far worse to cut through than the ordinary forest. On one occasion I was faced by a perfect network of jungle and vines, interlaced like a tangled ball of twine; to get through it was like hewing at a wall; forty yards a day was the progress; only those who have witnessed such similar localities can form an idea of the dense tangle; at a first glance it seemed a hopeless task, but more men were put on, and finally a sort of tunnel was chopped out. To see the infinitely varying curious forms and shapes of vines on the ground, on and in amongst the trees and bush is astounding, their convolutions and forms are surprising in the ever-changing appearances they assume.

Out in the open *chapadas* there existed in place of the

carrapatos, *birnies*, &c., a considerable annoyance in the form of bees,⁸ a small black insect, a little smaller than a common house-fly; it buzzes not, neither does it sting or bite, but it alights on one's flesh in myriads, and devotes all its energies to systematic tickling and minute exploration; it gets into one's ears, eyes, nose, down the back, into the hair, into the clothes; perpetual slapping availeth not, for if a dozen of the sticky things are smashed, a couple of dozen



Camarados dancing the batuque.

are hovering round for a place to prospect upon; the nuisance can be avoided to a certain extent by wrapping one's head in gauze; fortunately, the pest did not cover a considerable area.

The men's quarters were in a room adjoining mine, not by any means a desirable arrangement, for every night the quiet of the evening was disturbed by the noises of songs and the never-wearying *batuque* dance: a disturbance that had to be endured, in order to humour and keep the men in a good

⁸ *Melipona*, sp.

temper, when, if they are satisfied with their *patrão*, they will really get through a great amount of hard labour, and work from sunrise to sunset. I often looked in upon them in the evening, for the scene was picturesque, if rather grimey. The bare walls of the room, once white, now dark with the accumulated dust of years, are dimly lighted up by a castor-oil lamp stuck in the plaster and by the quivering gleams of a fire of logs on the earthen floor; great black shadows are cast behind the reclining men or group of dancers, that, with the measured beat and shuffle of feet, the clapping of hands, the thrumming of guitars and the choruses all sung in parts, the light of the fire striking upon the figures moving in the surrounding obscurity, all created effects weird and strange but not unpleasing.

The men I had then with me were a very mixed set of fellows; good workers they certainly were, but there were one or two very rowdy characters; one jovial happy-go-lucky *mameluco*, Patricio, was practically a ticket-of-leave man, having served six years out of ten that he had been condemned to at Fernando de Noronha (an island in the Atlantic belonging to Brazil, and the chief convict settlement). He often confessed that he had had good times there, and would very much like to return, and thought it would not be a bad idea to do another killing to enable him to settle down quietly in Fernando for the remainder of his days; the fellow took more than a *quantum suf.* of *cachaça*, and was often disputative and quarrelsome in consequence.

One evening, as I was in my room at work, my attention had been attracted by the fun of a tall stalwart negro in the men's quarters in the next room, a great *contador de historias* (story-teller); there came great shouts of laughter from the men, as the old man cracked his jokes; they had been having "good times," for the mirth had been long and uproarious, and

the *cachaça* had possibly been freely applied ; but the sounds changed at last to angry altercation ; I heard Patricios' voice shouting—all were shouting alike, making it difficult to distinguish words ; at last I heard Teixeira's voice (one of my Mesquita men), calling, "*Senhor Doutor, o homem quer me matar*" ("Senhor Doctor, the man wants to kill me !"). Upon entering their room I found the fun had all collapsed. A fire was burning on the earthen floor, throwing upward lights on the moving men and strange shadows behind them, the old negro held the drunken Patricio in a firm grip, who flourishing in his hands his long *faca de ponte* (dagger), was imbecilely trying to get at Teixeira, who stood at the defence with foice upraised ; the other men formed groups around, with guns and knives ready. Tableaux. Patricio was undoubtedly intoxicated ; apparently he had no particular desire to qualify himself for Fernando on Teixeira, it was only his playfulness. At my request he gave me his knife, and all the other men their sticks, billhooks, axes, guns, and pistols. I left the room, accompanied by a man carrying a perfect armoury. I knew I could then leave them alone to fight it out with boots and fists, if they wished, but that they will not care to do, and soon after a peaceful understanding ensued, and Patricio could be heard thumbing his guitar, as though nothing had happened ; he was doomed, however, and was dismissed next day. These men squabble like children, but their attention is just as easily diverted, and they are usually very manageable.

After I had been at Picada a few weeks I received an invitation to attend a wedding at Fazenda ———, and being curious to witness the *modus operandi* of the ceremony in the country, I made arrangements to be away for a day. My mule and myself were in excellent condition, the roads were good, the temperature was perfect, like a bright spring morning in

England, and the scenery—well, one can never tire of appreciating it, those grand rolling hills and valleys and distant blue outlines of serras ; the sky was bright and flecked with bluey “horse-tail” clouds, the breeze fresh and cool, the birds carolled their many songs ; one felt inclined to do all kinds of foolish capers, to gallop, shout, and sing, taking in the pure ozone in great mouthfuls, and yet this is said not to be a country for a white man, then the white man had better die at once, for there exists no finer climate. One can swing an axe or a billhook all day long, and go to work indoors all the evening till late at night, and rise early in the morning fresh for another day—can a man do more, be he black or white ?

About 11 a.m., the intervening nineteen miles were covered, and I found myself at ——, amidst a considerable crowd of country-people, some of whom had come forty or fifty miles ; no women were visible, for all the female visitors had retired within the house, and were then shut up in the female sanctums of the residence, only to appear on the auspicious occasion ; their husbands, fathers, brothers strolled listlessly about the precincts of the farm, or loitered in crowds in front of the door of B. G——s’ room, trying to catch a glimpse of the *estrangeiro* within. I found my colleague trying to work in semi-darkness, for he had to keep his door nearly closed to prevent the inroad of gaping visitors, and his room did not possess any windows. After a time we opened the door and placed our chairs in the doorway ; the result was surprising ; all the guests at once collected together in a semi-circle in front of us, those in the rear trying to elbow their way to the front seats to obtain a better view, and there they all stood out in the bright hot sunlight, with eyes focussed upon us, commenting in low voices upon our personal appearance—a lounging gaping crowd ; well, we soon got tired of this free exhibition, for our jokes and observations

were unanswered, one might just as well try to banter a sheep; I believe even a London omnibus-driver would desist from the attempt. They consisted chiefly of field-hands, or small farmers; they intended no offence, neither thought it an intrusion, they came simply to *olhar* (to look on), as they would themselves have confessed. We decided to take a walk; the crowd then separated, and wandered with hands in pocket, here and there, to whatever attracted them—a strolling pig, a crowing cock, a broken-down cart, the mud of the curral, anything or nothing, it was the epitome of slowness.

We went into the house to visit and compliment the father of the bride and the owner of the fazenda; there we found a few farmers in black coats and top-boots, assembled round a talkative man, who was carrying on all the conversation by himself, his auditors occasionally chiming in with, "*Hé de ver!*" "*Com effeito!*" "*N'hor sim!*" "*Ora! Ora!*" and to our amusement we found we were the subject of comment, or rather, the talkative man was explaining to his auditors, our history, origin, business, habits and customs, salary, religion, &c., according to his views or common report. He soon noticed our presence in the doorway, and joyfully turned to cross-examine us, but we requested him to talk on, and after a little persuasion he continued his address, standing in the middle of the room, freely gesticulating and emphasizing his statements. The following is more or less his observations:—

"Well, senhores, as I was previously telling you, this railway will be a grand thing, because we shall all be employed on it and become rich; these English are all wealthy, and all the money in the world comes from their country; I know that when our king wants any, he sends to England for it, and then he lets the English come here, and take the

gold from Brazil that we do not know how to get ourselves ; I have been to Morro Velho,¹ and have seen them send it away in sacks like we send away beans. Is that not so, Senhor Doutor ? ” turning to me.

“ Well, I have never been to Morro Velho.”

“ There, you see, here is an Englishman that is earning so much money that he is actually indifferent to the enormous quantities of gold his countrymen are extracting from the mines. I know that this railway is going to be made simply to carry the gold they are going to dig from some mine away below in the Sertão, that we know nothing about. Ah ! they are wonderful people, these English ; they are very different to poor people like us, and yet they are very honest ; I like the English, for they never break a promise, or deceive poor people, but we do not understand their ways ; some say they are pagans, but that I will not believe, for I have been told that they have churches in their country. I have even seen one of theirs at Morro Velho, but it is very different to ours, and not so pretty, and has no saints, but when they go to mass, these English are very solemn and well-behaved, do not talk like we do, and only sing and pray. I saw them once turn out a dog, for they will not allow dogs to enter their church. I do not understand their mass. I am sorry for them that they are not Christians, as I like them very much ; I believe they are all white people, for I have never yet seen a man of colour amongst them. When they are young, they are thin like these Doutores here, but always get big and fat when they get old, for they know how to live well : beer, and wine, and brandy every day, that's the way to lead a pleasant life. Oh dear ! I wish I was an Englishman. Look at these young men, why they have got boxes full of money, and clothes, and drinks, and

¹ The S. João d'El Rey gold-mine.

food that they like ; there is nothing they want that they cannot get, and yet you see they are quite young men, but they are awful people for keeping their money ; why, if I was to ask them to lend me a conto de reis (100*l.*), it would be no more to them than a milreis to us, and yet they would not do it. Would you, Senhores Doutores ?”

“ We are very sorry, but we have only just sufficient with us to pay expenses, but you try our chief at Taboleiro Grande, he is a remarkably generous man.”

“ What interest do you think he would want ?”

“ Well, as you are evidently an honest man, perhaps not more than two per cent. (per month, understood).”

“ Well, I have a great mind to try him, I could do a lot with a conto de reis.”

This has already been long enough, but our friend continued volubly in the same strain when we left him to visit the fazendeiro in an adjoining room. His opinions, although so absurd, are really a reflection of the prevailing ideas amongst the country people of our chief characteristics.

We found the father of the bride and the bridegroom both tall meagre nearly white men ; the latter, about forty-five years of age, was very much like the typical Don Quixote, a knight of the rueful countenance, for truly he did not look happy or in any way excited. Both were dressed in black swallow-tail coats, black trousers, white vests, tremendous stand-up collars, and white cravats. They were solemnly seated in state on a cane sofa, flanked by half-a-dozen chairs at each end, on which were seated the near male relations also dressed in black, and forming an avenue to the sofa. We tendered our congratulations ; our hosts rose solemnly at our approach, and profoundly bowed their acknowledgments. We hoped we might be permitted to congratulate or condole with the bride. That was a most

unexpected proposal, the father replied, "Ah!—yes—certainly—presently, that is, she is occupied now—no—it is not our custom—excuse me—later on."

I thought I would give anything for a bunch of crackers to make the solemn conclave a little frisky. Two of the friends now got up from their chairs, and offered their seats in the avenue, but the dreary prospect of entertaining these mournful people was not at all inviting; I began to gasp like a fish out of water, and feel creepy with the funereal solemnity, so we renewed our congratulations, best wishes for happiness, &c., and promised to join the dinner at 3 p.m. and departed for the bright sunshine outside. Most of the wanderers outdoors had found out our talkative friend, and were listening with *boca aberta* (mouth open) to his expositions; others were leaning in at the windows of the fazenda, staring at the preparations for the feast, or going in flocks to inspect the arrival of some new comers in bullock-carts and on horseback. Some of the fair ones seated on mattresses in the carts were most gorgeously appressed in white muslin or gaudy-print dresses, and such boots, such coloured ribbons, such tints of complexion, black, brown, whitey-brown, yellow and biliary white, and showing hardly a pretty face amongst them; and how they huddled together, like a flock of sheep when they descended from the carriages and steeds, and scurried into the female quarters of the house, giggling, blushing, each one scared out of her life to be behind, as though it was actually probable that any of those guileless listless male spectators might be a possible nineteenth-century Roman in pursuit of a modern Sabine spouse.

At 3 p.m. the wedding ceremony commenced. We were invited into a large bare whitewashed room in the house. One half of the room was occupied by tiers of benches, rising one above the other, and occupied by all the lady visitors;

the front row squatted on the floor, the next on a long bench, the next on the edge of a row of tables, the next on benches placed on the tables, and the last stood up behind, so that none failed to obtain a good view. We were conducted to one side of the room amidst the black-coated relations of the happy (?) couple ; the visitors crowded the door and windows of the room. A very fat priest entered, accompanied by a boy carrying book, incense, &c., followed by the father and his daughter the bride, the bridegroom, and the mother of the bride, and two ancient dames. The bride was stout and short, about thirty-five years old, very plain and yellowy-white, and wore a wreath, a long veil, a white satin dress and shoes, quite *de rigueur*.

The ceremony was soon over, the hands of the couple were joined by the priest, he blessed and sprinkled them with holy water, and then addressed them an exhortation in a low voice, the words of which I could not catch. The curious pair, one long and lean, the other short and stout, looked scared and very solemn, and particularly uncomfortable, and received our felicitations with apathy. A general move then took place to an adjoining room where a grand repast was spread. We tendered our arms to two of the prettiest women of the benches, but we only received a bashful giggle from the fair ones who at once hurried to join the other women, and all scurried out of the room with more giggles and assumed confusion. They occupied one entire side of the long table ; the newly-married couple one end, the parents the other ; we took our seats with the black-coated friends, facing the ladies. It was quite a sight to see the table ; in front of every one was a plate of hot soup, and on the table, some hot, some cold, some warm, were turkeys, fowls, ducks, sucking-pigs, joints of pork, beef, fried fish, ham, huge plates of potatoes, beans, *farinha*, sweet potatoes, cabbages, aipim or sweet mandioca,

and interspersed amongst the dishes were various fruits, sweets, preserves, bottles of beer, wine, brandy, and *cachaça*—truly, a regal country spread, and our appetites were keen and healthy, and by no means fastidious. We had just discovered that the soup was very hot greasy and only tasted of garlic, when our talkative friend got upon his feet to make a speech, and all the guests at the same time arose.

“*Meos distinctos senhores.* We are here assembled to-day on this grand solemn and auspicious occasion, to assist in the happy marriage of our most distinguished *compadre* the most worthy planter, the Senhor —, with the lovely and graceful daughter of our most worthy friend, the most distinguished planter, Senhor —, who this day will feel his breast lacerated with the pangs of separation from his adored and esteemed daughter, the most lovely and most graceful excellentissima Senhora Donna —, the idol of his eye, the solace of his life, the sharer of his joys, the organizer of this grand banquet, this great festival, a festival, *meos senhores*, that will be long memorable in the future history of our district. *Meos senhores*, let us drink to the healths of the happy bride and bridegroom. *Viva ! viva a noiva e o noivo. Viva !*”

Amidst loud acclamations the toast was drunk.

We sat down, the soup had gone ; we signalled to the black attendants for a plate ; before it arrived, another man got up, and the guests likewise ; some poetry was then recited upon the joys and ethereal happiness of married life, it was rather long and was wound up with a toast to the parents of the bride. A plate had meanwhile appeared, and we made an onslaught upon the nearest dish, as we perceived everybody was working against time ; anything was seized and hurriedly chopped up, but we were far behind time. Another irrepressible now arose, again accompanied by the guests, to listen to

another long speech of compliments and toasts, then we sat down for another effort to stay our raging pangs ; but it was of no use, for all the men had their turn, and finally our talkative friend made us an exhaustive complimentary speech, to which I had to reply. There were yet more speeches and toasts drunk in beer or wine or anything that happened to be nearest. All the time the solemn bridegroom and his bride sat motionless and silent, the man staring straight before him, the bride gazing at her plate. After every one had had his turn at a speech, all withdrew into an adjoining room where we found a large table literally piled up with sweetmeats, preserves, and cakes ; they were certainly beautifully made, some of the crystallized fruits and preserves were clever productions, and would have been a credit to any European confectioner. As soon as we could decently get away, we adjourned to G——'s room to dine.

We returned later on to see the second dinner of the outsiders. There was then real enjoyment ; the country people went for the good things as though they were storming a fortress ; each one quickly attacked whatever was before him, no matter what the material might be—fish, pork, and beef, and vegetables were piled on the plates, hurriedly chopped up, the fork is discarded, the guest pushes back his chair, brings his chin to the level of the plate, spreads out his arms, and carries with his knife vast loads to his capacious mouth ; a turn or two of the tongue, and the eyes glare out with the effort of bolting the huge mixture. One or two get up to make speeches, but the others are evidently bent upon business, and take no notice. What a wreck the huge table soon becomes ! in a very few minutes, joints and birds are reduced to skeletons, liquors are mixed indiscriminately, and swallowed with the huge quantities of food. Within fifteen minutes it is all over, even in-

cluding relays of fresh participators of the feast. Then all adjourned to the confectionery room and attacked with success the pile of goodies. The satisfaction was undoubtedly great, for the eructations were loud and frequent, accompanied by expressions of "*Que bom jantar*" ("What a good dinner!"), "*N'hor sim, muito gostoso*" ("Sim senhor, very delicious"), "*Estou cheio nao posso mais*" ("I am full, I can't go any more"), &c.

A little more life and animation prevailed after the feast, tongues were loosened, guitars produced, and songs were sung; but a few of the diners went to sleep in the bullock-waggons or under the trees. Several of the black-coated gentry of the first dinner, neighbouring farmers chiefly, eventually paid us a visit, and expressed their regret at the superabundance of toasts; but it is the custom of the country, they said with a shrug of the shoulders, and hoped we had been able to secure something as they had done, and offered to get us a fowl or something. We explained that we had already dined in my friend's quarters. "Ah! that is wise, leave an Englishman alone to take care of himself." They are pleasant fellows, but as keen as a Yorkshireman at a bargain, and questioned us when we were going to commence the railway, and what there would be for them to do, &c.

In the evening we were summoned into the large room where the marriage ceremony took place; the ladies had all again occupied the benches, and in front of them the solemn and silent "happy pair" were seated, stolidly gazing straight ahead. Some musicians with guitars and violins were tuning their instruments, whilst two couples were arranging themselves for a dance, that soon resolved itself into a *batuque*. This dance, so much favoured by muleteers and labourers, and their frail female friends, I certainly did not expect to

see in a decent family ; but as our friends very much appreciated it with enthusiastic *vivas* and hand-clappings and general chorus, it was welcome if only to give life and animation. There were no other dances, and during all the evening the women remained on their benches, and the men stood in groups away from them in the doors or leaned in the windows. Meanwhile the dance becomes fast and furious, the steps are rapid, and keep measured time to the music ; the voices individually were extremely unpleasant, but the parts were admirably taken up and formed a pleasant harmony ; when the dancers finished, flushed excited and out of breath, others took their places and renewed it over again, every one was pleased and delighted ; then there were songs, more dances, and more songs, and finally G—— was requested to produce his banjo and sing an English song. He sang a comic Christy Minstrel song ; they liked the music, and soon picked up the chorus. We retired early in the evening.

Songs and dances were kept up all night, and *cachaça* was freely supplied and taken, yet no one appeared to be any the worse for the excesses. I heard afterwards that the relations of the family accompanied the father of the bride to assist in a final “tuck me in” of the happy couple. This event must be considered as only an example of a country yokel’s wedding, there was not one educated Brazilian amongst them, although the father of the bride and the bridegroom were well-to-do and prosperous farmers. It was a *mariage de convenance*, for the bride was an only daughter, and her husband owned adjoining lands.

On the 26th of September, the work being completed in the neighbourhood of Fazenda de Picada, I moved to other quarters further down the survey, to an old ruinous abandoned house in a locality called Paciença ; and truly,

it was rightly named patience, for it was the most doleful of places I had yet seen. The walls of the house, at least such as were left, were of mud, plastered over a framework of sticks ; the door and window-shutters hung on their hinges ; half the tiles of the roof had disappeared ; it was all overgrown with weeds and bush, and too far gone in dilapidation generally to endeavour to make it comfortable, but the bush was cleared and the door and window-shutters re-hung ; it served for a week or two.

The house stood in a little hollow, surrounded by rolling hills covered with cerrado ; in front, on a hill-slope, were the remains of an old cemetery, and half a mile beyond rose up the scarped brown and grey bluffs of the Serra de Gentiho, crowned by bush and trees. It was a thorough solitude ; even the birds appeared to have deserted it, for no sounds broke the drear stillness ; thick cerrado and bushes surrounded the house, and the hills shut out all views.

Like most deserted houses in Brazil, the place was infested with snakes, scorpions, lizards, and other creeping things ; during the first three days we killed two *jararacas*, a green *cobra de São João*, a small *cainana*, three scorpions, and the repulsive-looking pale-grey gecko lizards haunted the walls ; these latter are believed to create a sort of erysipelas or malignant disorders of the skin whenever they pass over the flesh of a human being, and to poison any viands they may touch ; whether it is so or not, I had no opportunity of verifying. They move noiselessly, not a rustle is heard, and their appearance is so forbidding that the popular aversion entertained towards them can hardly be wondered at. On the grounds near the old cemetery were often seen several of the *tatu cavador*, already mentioned in this chapter. There were certainly a good many burrows in the cemetery that looked like armadillo

holes, and gave credence to the carrion propensities of this species. At night, owls hooted, and the night-bird *peítica*² uttered its melancholy wailing notes ; the latter is considered a bird of ill omen, so that what with the wild desolate appearance of the locality, the prevalence of reptiles, the proximity of the cemetery, the place altogether had such an uncanny look that the men conjured up varieties of superstitious horrors, and wanted to leave, and gave me much trouble to induce them to remain. I had to find occupation for them in the evening by instituting *batuque* dances, and by erecting a single bar, on which I taught them gymnastics. One of them, Felicissimo de Caboclo, almost a pure Indian, soon became very expert, and after a time they were more contented.

The commissariat also was inconveniently supplied, for, although there was a small fazenda within two miles, yet nothing could be obtained there except maize ; it was necessary to send to Picada for everything else.

The lines of survey passed close by the foot of the Serra de Gentiho, where there is a broad long valley filled with *roças*, new and old, belonging to many farms, sometimes miles away.

This valley, surrounded as it is by the sombre tinted walls of rock, is a strange weird scene of solitude of intense quiet, where the mens' voices echoed and reverberated amongst the steep bluffs of the serra, making the stillness even more palpable ; the many old *rocas* were a perfect jungle of weeds, bush, broken fences and damp-decayed old ranchos ; even the growing crops of the new clearings failed to destroy the sensation of gloom, especially in the early evening, when the sun disappeared behind the hills, and long dark shades and blue mists swept across the valley and crept up the rocky

² Pronounce *pay-ee-tecker*.

slopes of the hills. But the old *rocas* were grand fields for the entomologist, for there were myriads of beetles of an immense variety of species. Jaguars have also been seen and killed lately in this abode of gloom.

One morning, as we were proceeding along the picada, the men killed a young *jiboia* or boa constrictor, about five feet long; we left it for dead, and in the afternoon, on our return, it was found in much the same place. Knowing that it would soon become offensive, I took it up by the end of its tail with the intention of examining it and then throwing it further away in the bush, but the reptile was possessed of such extraordinary muscular vitality, that it immediately contracted its body and coiled around my arm; I shook it off with a shudder, yet it was to all intents and purposes quite dead, and had remained all day where it was struck down, although when touched it applied considerable force in its movements.

The days passed quietly and swiftly, but the nights were long and dull, for I had no writing appliances or anything to write upon in the temporary abode at Paciença and used to sit on the broken doorstep and think how things were moving in the great busy outer world, or watch the glinting fire-flies, or the lights of the fire of logs in front of the house flickering on the recumbent figures of the men smoking and telling stories, each one of his *terra* (his native place), and absent friends and *compadres*; the near neighbourhood of the cemetery was always a source of terror to them, they would not leave the precincts of the house unless accompanied by a comrade.

They were, then, a quiet orderly set of men, after their ranks had been thinned by Patricio and other too jovial characters. On one occasion, I found a man early in the morning, raging round the yard of Picada with a poniard in his hand, vowing vengeance because he had been served with cold coffee,

and two others had created disturbances on account of their rations. All this had been avoided at Mesquita by employing labourers that had homes close by, but in Picada that could not be done. I sustained a great loss when my head man, Chico, left me; he had only been a short time married, and his *saudades*³ for his wife made him unhappy. I parted with him with regret, for he was very intelligent and useful to me, and an indefatigable worker—a straightforward honest fellow.

Saturday afternoons and Sundays were passed at Picada, or at the cotton-mill, or at headquarters, or I received visits from Mr. B——, or from some one of the engineers on his way down below to other sections. Mr. F—— first passed by, and then C—— and Peter accompanied by B. G——. On this latter occasion, B. G—— had the first attack of intermittent fever, that afterwards played such havoc with the staff on the Lower Parãopeba and Upper São Francisco. B. G—— went through the three stages of the fever, the deadly chills, the hot period, and then the profuse perspiration, lasting altogether six hours, and next day returned to his work.

I accompanied C—— and Peter to the end of my section, and called upon a local magnate, a Senhor Antonio Gonçalves de Mascarenhas, to whom C—— had brought a letter of introduction from the Visconde de Barbacena of Rio de Janeiro. After a long dusty ride over the then parched and heated lands, we approached the fazenda by a good road, bordered by long and extensive fences of Arueiro stakes and avenues of palms and bamboos; at its end a gate led

³ This word "*saudades*" is probably the most comprehensive word in Portuguese. it implies a craving for some absent thing, place or past event, our word "longings" hardly expresses it, as a deep feeling of regret or affection is associated with *saudades*. Home-sick conveys more of its meaning in *saudades de casa*.

us into the large farmyard of the fazenda, a large two-storied house with stairs leading to a broad verandah on its upper floor, where ladies were sitting at work. Large numbers of mules and bullocks were feeding in a paddock close by; there were several bullock-carts in the yard, many negroes moving about, and large storehouses, and sugar, maize and *farinha*-mills adjoined the house. Along the verandah and in a garden close by, were (rare sight) well-trained European flowers, clematis, roses, camellias, geraniums, fuchsias, verbenas, and tropical stephanotis, (Flor de Imperador)⁴ and many other flowers. The windows were glazed, the house was in good order, and showed evident signs of prosperity and rural wealth. On inquiring for the proprietor, we were ushered upstairs, where we met a very comely old white-haired gentleman, who received us courteously, perused the letter of introduction, and expressed himself at our orders. Unfortunately C—— would talk to him in his astounding Portuguese. The old gentleman smiled blandly, passed his hands soothingly one over the other, and looked puzzled; he evidently could not comprehend my friend. I ventured a complimentary observation upon his rare taste in cultivating flowers. “Oh, that is a *coisa atôá*” (a useless thing); “that is the business of my wife; it is her idea.” At this moment a handsome young fellow entered the room and greeted us in English, “How do you do?” He was a grandson of the old gentleman, and had been educated in Rio. It was a great pleasure to find oneself once again under a civilized roof and in civilized society; but I had to return to Paciência that night to be with the men in the early morning. We were pressed to stay the night, or at least have some dinner. I promised to repeat the visit when I passed the fazenda on the way down to the next section.

⁴ *Oleo fragrans.*

CHAPTER VIII.

FROM PICADA TO BURITY COMPRIDO ON THE RIO SÃO FRANCISCO.

Departure from Picada—A second visit to Fazenda São Sebastião—A hard-working and successful Brazilian gentleman—Pleasant quarters—First indications of malarious districts—The Sertão, and where is it?—A great solitude—A long ride, and its scenery and incidents—Tinned provisions—A wet night under canvas—Headquarters removing—A proprietor of vast estates—A merry party with comrades—A holiday—*Perdix* or Brazilian partridges—A novel fishing—The *surubim*; huge size—The river-side again—Boisterous weather—A wet day's journey—At Bagri—Another Italian inn-keeper—A dangerous crossing—Superstition verified—Disappearance of Goitre—The rancho at Moquem—The district of the junction of the Rios Parãopeba and São Francisco—Pindahybas—A lazy fellow—Burity Comprido and headquarters—The Mangabeira, an indiarubber-tree—Wild vanilla.



ON the 15th November, accompanied by two comrades, Teixeira (from Mesquita) and Antonio Eugenio, I started on my journey to headquarters at Meleiro. A bullock-cart

was engaged to transport the baggage the intervening forty-four miles for the price of 64 milreis, or about three shillings per mile. I parted with my friends at Picada with many exchanges of kind wishes; genuine, I know; on my part, for they had been exceedingly kind to me, and I shall

always remember Senhor José as a fine straightforward honest manly fellow.

The work was over, and I looked forward to the next few days' travelling as an agreeable change and relaxation from the really hard work of surveying. Several of the picadas that crossed the road were already partly obliterated, the vegetation was springing up, and in a very short time they will be grown over and undistinguishable. Desolate tumble-



Fazenda de São Sebastião.

down Paciença looked even more desolate and solitary, half buried in its surrounding tangle of bush and bramble. Yes, Paciença I could well leave, without any regret, to be again tenanted by its former inmates, the snakes, scorpions, and other vermin.

According to my promise, I visited Senhor Antonio Goncalvez Luiz Mascarenhas at his fazenda of São Sebastião, twelve miles from Picada. I found the old gentle-

man and his nephew Francisco, at home, who were good enough to express satisfaction at my visit, and hoped I should remain some days with them. I had not seen much of the old gentleman on my first call, as it was but a short one, and at the time I thought him very reticent. But on further acquaintance found out the reason, for he said that my companion's gibberish had so confused him, that he could say nothing and only try to make himself agreeable to the best of his ability. He was a chatty bright old fellow, perhaps rather old-worldish in his ideas, yet, he told me frankly, as a thing he was proud of, that he had commenced life in that neighbourhood as a penniless uneducated orphan lad, and that by industry, enterprise, and thrift, he had secured independence and comfort for his hale old age. His sons have evidently inherited the energy of their father, for they conceived the idea and carried out the establishment of the cotton factory near Taboleiro Grande, where they are rapidly becoming wealthy. I quote this as an example of what can be done by energy and perseverance, even in such a district as this, that is so healthy, yet so far inferior to more favoured districts in Brazil. I joined the family at a four o'clock dinner, a pleasant family party; the men were gentlemen, and the old dame was a hale handsome neatly-dressed old lady, but the younger ones were rather too much *en déshabille* to please European tastes, but they compensated for it by the attractiveness of their looks and their frank and genial manners.

The next morning as I arose from a clean and comfortable bed in a neat bedroom, I felt instinctively I was bidding a long good-bye to such luxuries.¹ It is all very well for a traveller to expatiate on the charms of "roughing it," for

¹ It was fifteen months before I again found such a really human habitation, that of Macombo, on the São Francisco river, near Januária.

however great such questionable charms may be, a little occasional return to the comforts of civilized life cannot be otherwise than greatly appreciated. Senhor Francisco accompanied me a short distance on my road to direct me to the quarters of F——, on the banks of the Corrego Leitão.² I had heard such dreadful accounts of the insalubrity of the neighbourhood of this stream that I inquired of my companion if it was true.

“Not in the least,” he replied, “it is perfectly healthy; but, *mais para baixo* (further below), where you are going to, it is really horrible.”

“Tell me, my friend, is this district considered as the Sertão?”

“No; the Sertão is *mais para baixo* also.”

Now I considered awhile, and began to be dubious of the many legends of the ever-distant Sertão in the shadowy *mais para baixo*; for ever since leaving Barbacena, at different places, people, upon hearing of our extended expedition had prognosticated danger, disaster, and death, from outlaws, wild Indians, fevers, starvation, snakes, jaguars, &c., whenever we reached the wild Sertão. At first I was told it commenced at Capella Nova; but the Capella Novanas scorned the imputation, yet confessed that at Sta. Queteria and *mais para baixo*, sim Senhor, yes, there we might really expect something. At Sta. Queteria I was referred to Inhaúma, from there to Taboleiro Grande, yet still it is *mais para baixo*. All reports that one hears in Brazil of distant localities must be taken *cum grano*, yet there is always a basis for the stories, however greatly exaggerated they may be; for this same Corrego Leitão eventually proved to be anything but a healthy sucking-pig stream, as F—— and many of his men suffered considerably from intermittent

² Sucking-pig stream.

fevers there and in the low lands near the River Parãopeba. We found him occupying a stick and grass hut that he had had constructed, the first one on the survey, and an indication of an approach to less inhabited districts, maybe the actual Sertão. The visit was a business one, soon discussed, with the inevitable *refresco* to cheer the long ride before me.

Soon after leaving the Corrego Leitão, the track, or rather route (for the tracks are numerous and lead to all directions, or to nowhere like cattle-grazing grounds), led us on to higher ground, where all bush and trees and shrubs existed no longer, giving place to the purely grass-lands of the Campos. As we rode on, mounting long gentle slopes, the views became more and more extended, until finally a vast panorama of rolling grass hills opened before us. Let the reader picture before his mind's eye a huge amphitheatre, horseshoe in form and about fifteen miles in diameter, whose extremities terminate in bluffs on the margins of the River Parãopeba. The interior of the hollow appears like a world of smaller eminences, rounded, flat, ridged, peaked, divided by valleys—some wide and shallow, others narrow and precipitous—winding in and out in a serpentine form. The slopes of all the hillsides are furrowed and gulleyed by the drainage of surface water; no *barrancos* or earth subsidences, like those around Barbacena, are visible; it is a world of green grass, and only in the bottoms of wide shallow valleys is seen a little bush or forest; on the hilltops and sides even the sparse cerrado vegetation is absent. The higher lands of the enclosing horseshoe are the old levels of the great Brazilian plateau, that covers the greater part of the empire, but that is so cut up by denudations in the neighbourhood of the large rivers and small streams, that a limited experience of the country will not permit its original homogeneity to be easily traceable or dis-

cernible.³ Away to the west can be seen occasional bends of the river, sometimes fringed by belts of forest, sometimes bordered by the river-excavated red cliffs of the hills, sometimes enclosed by the gentle slopes of grassy hills. Away beyond the river, are more green hills, fading away in the far distance into faint blue outlines, hardly discernible against the pearly-coloured horizon. Overhead is a pale azure sky, across which the fleecy clouds chase each other in ever-changing forms, softening the verdant landscape with dark-fleeting shadows. A fresh pure breeze blows freely across the wide expanse, scented with the odorous grasses. What a solitude it is; not a column of smoke is anywhere visible to denote the presence of man, not a hut, not a habitation of any kind can be seen: the cattle-tracks, and occasionally a very few cattle, and the recently-burnt grass, are the only evidences in sight of human existence. Throughout this district, the soil is practically useless for agriculture; whatever the subsoil may be, the surface shows only gravelly or sandy materials, and the very absence of anything approaching to forest (except in the thin lines of woods in the deeper hollows and on the banks of the river), is alone sufficient to denote its unproductive nature.

We pursued a route as near as possible on the borders of the circumscribing table-lands, in order to avoid the long ascents and descents of the enclosed undulating hilly country, finally gaining the upper levels of the table-lands. There we again encountered the cerrado vegetation, thin and sparse, more shrubs than trees, new varieties of both appearing, such as great quantities of the delicious and beautiful nectarine-like fruit, the *mangaba*;⁴ a white,

³ See Appendix. Sketch of Physical Geography of Brazil.

⁴ The product of this fruit (in 1885) is becoming to be exported from Bahia in the form of indiarubber. The tree is the *Hancornia speciosa*, family of *Apocynæa*, or *Hancornia pubescens*, Gardner.

milk-like substance exudes from the trunks, branches, and fruits of this tree when gashed, that immediately changes into excellent indiarubber with the addition of a little acid. There are also wild *cajews*,⁵ and several varieties of ground palms. In the depressions or hollows of the surface are compact clumps of *Pindahyba* thicket—masses of lovely vegetation that must be seen to be realized.

We followed as well as we could such tracks as pointed more or less to the direction of our destination. Occasionally they terminated in the wretched hut of a cattle-herdsman and his family—an uncleaned birdcage, redolent of smoke and grimy poverty—but the inmates were civil and obliging, and tried to give us directions to find our way, that only served to confuse and puzzle us. The principal direction was straight on, *não tem errado* (there is no mistake). They know every yard of the ground themselves, and think (that is, if they ever do think), that the stranger must be equally familiar with the many tracks he meets. We passed a very few more of these huts, forded several streams, and in the late afternoon passed the Corrego d'Alma (Ghost Stream), a furious little bridgeless rivulet, flowing between precipitous banks; then in the dries there was not much water, but it must be absolutely impassable after heavy rain.⁶ As it was, it became a scramble down steep slopes of stiff sticky clay, across a slippery rocky bottom, and a series of plunges into a deep slough on the other side, and yet my baggage had to cross there in the bullock-cart. Well, I would rather not be present to see it, it will get across somehow or other, but the process is painful to witness.

There were signs of approaching rains so long delayed. In

⁵ *Anacardium occidentale* produces an excellent fruit, a sweet astringent; the juice is much used and appreciated as a refreshing drink.

⁶ The main road passes through Taboleiro Grande and then on to Curvello in the N.N.E.

the late afternoon the sun set behind heavy banks of dark clouds, the wind had dropped, the atmosphere was close and murky, and distant thunder was heard muttering its ominous growlings—all creation seemed quieted, even to the shrill *cigarro* (cicada). We pushed on, for it soon darkens after the evanescent twilight. Go on, Tommy ; but, dear me, how very hard the saddle is, and how woodeny one's limbs become after a long ride ; and what an ethereal feeling one experiences in the region of the waist-belt, and how slack it becomes, and what a very long league the last one is. A feeling of supreme indifference to passing grand effects of fading day is engendered, with a prosaical mirage of memories of bygone good times, after a day's boating on the Thames in a riverside inn. The day's journey was supposed to be thirty-two miles, but we had come by such a roundabout way, and had made so many mistakes, that it must have been nearer fifty miles ; it really felt like an unlimited number, for the best of mules, after a long day, is very uncomfortable to ride, it seems impossible to find an easy position in any attitude. All things, however, have an end, and at 7.30 we crossed the Corrego Mileiro by a new bridge close to the fazenda of that name, and on the other side rode into camp just as a crash of thunder reverberated around, and big warm drops of rain began to fall. Well, that's luck anyhow, I felt, as I walked into the large marquee-tent and found our chief, surrounded by his usual chaos, as though everything had been, in vulgar parlance, "chucked in." But there was a table, and on that table a tablecloth and plates, and some tinned "stuff" was duly produced from under some sitting fowls, a knife was driven into the tin, and, as very often happens, there was a phiz, and a puff of foul gas was wafted into our faces. That does not look as though it is good. No, it is a little gone perhaps—try another. The next one opens placidly, like an oyster, and exposes its greasy

fluid and stewed rags within. The homely black beans and farinha, for a continuous diet, are far superior to all the tinned abominations that were ever invented, and are certainly more wholesome.

How it rained outside; not like the petty retail way that the rain is served out at home, but in a grand wholesale manner; but kind nature is sometimes too generous, for the waters invaded the sacred precincts of headquarters in many a gurgling rivulet, making the rooms quite damp, and soiling the beautiful floors; but the tents and the ranchos held together, although a Scotch mist came through the canvas of the former, and perpendicular lines of water streamed through the badly-constructed roofs of the latter. But with the aid of umbrellas and mackintoshes and by climbing up precipitous crags and precipices of boxes chests and trunks, it was not so bad. In fact, after my long day's ride and a rich banquet of tinned stuff, followed by some good coffee, to stretch one's joints on the downy bed of a few sacks of maize, a candle in a bottle at one's head, and a late illustrated paper or magazine two months old, and an umbrella up to keep away the draughts and drizzle; well, one can afford to look over any trifling inconveniences. It was all so jolly, as Mark Tapley would say.

The next day, Sunday, opened with alternate showers and sunshine. It was packing-up day, for headquarters were removing to the São Francisco, at Burity Comprido; about a dozen pack and saddle-mules, and six bullock-carts each with a team of sixteen oxen, were gathered around the four grass ranchos and two canvas tents of the camp; there was plenty of noise and bustle, the fowls were flying madly about chased by the men, the fat pet sheep unceremoniously charged between our legs; the fat pet turkey and the other turkeys loudly gobble-gobbled their dissatisfaction,

guinea-fowls cried go-back, go-back, go-back, the mules were fighting over their corn and lashing out with their legs, the men were squabbling, H. G—— was ordering, no one was obeying, the bullocks were the only quiet things as they ruminated with grave and thoughtful countenances.

“Well! I shall have some sardines and biscuits, and see how friend C—— is faring in his section hard by, that is eight miles away.”

Close by the camp was the Fazenda de Mileiro, the owner of which paid the camp a morning call just as I was preparing to depart. He was a bright hard-working little white man, about fifty years old; he had lately built the bridge close by at his own cost, and a good deal of his own personal labour. He was thrifty as a north countryman, but his ideas ran in narrow channels; he was not a practical man, otherwise he ought to have done something with his vast estate of over 100 square miles, or more than 60,000 acres, consisting of nearly all the land passed the previous day, yet he was comparatively poor. He said that gold had been found in the banks of the Mileiro; very possibly, but reports of gold, in Minas, are the cry of “wolf” so often repeated, that at last one naturally turns a deaf or incredible ear to the tales.

The old grey mule Tommy was in excellent condition, and we cantered over the intervening few miles through wet grass and dripping leaves of cerrado vegetation; the day was squally, the wind blew in fresh fitful gusts, the clouds were scudding overhead and throwing patches of sweeping lights and shades over the extensive and continually changing landscape of rolling hills and wooded valleys, here and there shrouded in grey columns of the discharging watery contents of dark clouds. In due time I arrived at a small riverside fazenda, just in time to catch my colleagues, who were also

moving to new quarters. I received a warm, if rather boisterous reception, and accompanied them to their new establishment by the riverside. On the road we sighted close to us, a fine antlered buck (*galheiro do Campos*). Unfortunately, every one apparently aimed *at* the stag, otherwise he might have been shot ; as it was, he of course soon disappeared from view, followed by various dogs, the last of all being a long ugly black "turn-spit" dog of C——'s, that had as much chance of catching it as a tortoise would have had. It was an hour's ride over an open country, and with our men we made a little squadron of fifteen ; the various merits of each others' cattle were discussed ; could we do otherwise than settle all disputes but by a race ? away we went, the cheeriest and noisiest race that was ever run, many a horse falls, but the rider, well-balanced in the saddle, opens his legs like a pair of scissors, leaps over the animal's head, and alights with a run on the ground in front ; a laugh and a shout, he is mounted again ; bravo, Tommy, my much chaffed and maligned old grey mule keeps well to the fore, until a little wiry horse of one of the men gave us all the good-bye.

Arriving at our destination, we found a huge rancho, forty by twenty feet, ready for occupation. It was divided in the middle by a partition of sticks, one half of the hut serving as quarters for the men, the other half for those of my colleagues. It was, to my taste, anything but a pleasant arrangement, for the men delight to keep long hours in often too jovial merriment.

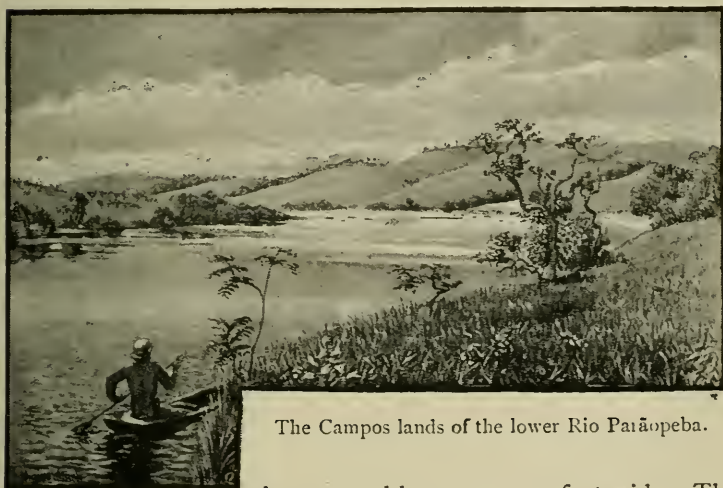
I spent two long days at the rancho fishing, shooting, sketching, &c. ; although the weather was rough squally and rainy, like a wet summer sou'-wester on the tors of Dartmoor, it was nevertheless bracing, and acted like a tonic. There were a good many partridges (*perdizes*), but they re-

quired a dog to find them, yet even without one a few brace could be bagged in an hour or two. The river was full of fish, that are only caught by a hook and line. The *modus operandi* of catching the large spotted scaleless *surubim* is at least a progressive process. First is used a slight stick, a yard or two of cotton-thread, a bent pin and a worm, just like the London boys use on suburban ponds to catch sticklebacks. A few small *piáu*, two to three inches long, were soon caught, the tackle was then discarded and we moved to another part of the bank ; a long, lithe bamboo was used for a rod, a fine strong line of plaited horsehair was attached to it, with a home-made hook at one end ; one of the *piáu* serving as bait. A few variously sized fish of different species were caught : *dourados*, a species of golden salmon ; *matrimxão*⁷ a species of roach ; and the croaking grunting *mandim*, the latter in form and colour somewhat like a whiting, but the whole of the head is enveloped in a shell-like substance. One of the *matrimxão*, about half a pound weight, was selected for the next bait. A move was then made to the neighbourhood of a very deep pool, at a bend of the river where there was an eddy. A stout cable of horsehair mixed with the inner fibres of the *barba velha* parasite was uncoiled ; a large hook, big enough to hold a shark, was secured at one end, and driven through the tail of the unfortunate *matrimxão* ; a large stone was fastened to the cable about four feet from the hook, and the line thus prepared was thrown out into the pool, the end of the cable was coiled around the trunk of a small tree, and then one can go away to return on the morning of next day, to find two out of three times, a *surubim* at the end of the cable, with bait and hook in its stomach. The usual length of the fish is about four feet ; like the *mandim*, it has an armour-plated head, a scaleless skin, and four long barbules, two on the upper

⁷ Pronounce *Martreen-shoun*.

and two on the lower lips. It is a pale salmon in colour, with rows of dark purple spots extending down its back and sides. It has no teeth, but its mouth is enormous in size; it is a mud fish, and lives a sluggish life at the bottom of deep holes, especially where there is an eddy. As a fresh fish it is very insipid, but, dried and salted, it forms a staple article of food on the Rio São Francisco, and somewhat resembles salted codfish.⁸

The site of the rancho commanded a grand view of the



The Campos lands of the lower Rio Paraíba.

river, a noble stream 500 feet wide. The grass-covered ground slopes to the edge of the water that is often bordered by great lily-flowering aroids.⁹ Looking down stream the river curves to the left, rippling over lines of black rocks at the elbow of the stream, and enclosed by the encircling hills. There were just enough clumps of wood and scattered trees and bush to break the otherwise monotonous appearance of the grass.

⁸ The surubim is reported to attain a length of eight feet. I saw myself a fine specimen, six feet two inches in length, that was brought one day to Fazenda Picada. Its large mouth would easily hold a man's head within it.

⁹ *Alocasia Macrorrhiza*.

On a bright sunny day a fresh breeze ripples the water, and makes the leaves of the trees rustle a melody, and quiver and flash in the bright sunshine, the fish splash in the water, the air is odorous with scented grasses and flowers, the sky a pale azure—all seeming so bright and fresh after a previous dull rainy day. Surely there should be no fever here; unfortunately those picturesque distant riverside thickets of trees hide many a pool of black festering mud and rotting vegetation; and many of the streams that join the river form little deltas of the *detritus* brought down in the rains, and spread a slimy deposit over the banks and foliage of the bush, and in the floods create little lagoons in adjoining lowlands, that swarm with mosquitos, snakes, toads, and other slimy crawling abominations, amidst dank decaying matter festering in the heat of the sun when sheltered by surrounding bush from the healthful breezes, and there generate the deadly invisible miasma.

It rained again when I started, and it rained all day; my destination was Bagri, a small village about twenty-four miles distant. I will summarize the journey by saying it was a long ride over alternately long swelling ridges and deep valleys. On the former the wind howled and the rain fell in sheets of water. My *camaradas* looked as though they had been dragged out of a river; their faces were pinched and blanched, their noses blue, and their teeth chattered, albeit they were enveloped in their thick blue *ponchos*. In the valleys we had several scrambles across flooded rivulets of yellow-ochre water, and sink or swim we must go at the ugly little streams, or wait indefinitely until the waters subsided. The country side was practically uninhabited, for not a single hut or farm did we pass on the way—it was a solitude of cerrado and grass-covered hills and wooded valleys; no animals and but few

birds were noticeable, and the drenching rain partly obscured the surrounding features and turned the whole landscape into a study in neutral tints. In due time we arrived at Bagri, a small village in the form of a square, situated on the brow of an extensive rounded plateau. I found an "hotel" kept by an Italian, a Senhor Pedro Pinto, comprising, of course, the inevitable *venda*, or general village store. Mine host was civil and obliging, satisfied one's creature-comforts with the ordinary Minas country fare, and a rustling bed of a maize-shuck stuffed mattress. The village had not been more than thirty years in existence, and comprised some fifty or sixty houses. An unfinished church occupied the centre of the square, partly surrounded by scaffolding that looked as old as the building. It was far from completed, and looked at best but an unfinished barn. A stroll in the evening, when the rain eased, produced no discovery of interest. The open doors of the houses showed the usual sordid desolation of these homes—doing nothing, smoking and talking, appeared to be the principal occupation. It is really astonishing in these villages to see the number of idle unoccupied people lounging, squatting, yawning terribly, borne down with perpetual *ennui* and an objectless life; even my presence amongst them did not appear to provoke the usual curiosity; perhaps the fact of Mr. B—— and his big troop having only passed through a day or two before might have provoked such undue excitement, that the reaction may have been too much for them.

The next morning, accompanied by a guide and my two camaradas, the journey was continued as far as O—— section, at Moquem, sixteen miles away. The day was bright and clear and pleasant, after the previous day's soaking rain. A few miles out, the Rio do Peixe was crossed; fortunately the waters had already subsided, but it was a ticklish operation; the waters rushed furiously over a smooth slippery

surface of rock, down to a fall of fifty feet, not fifty yards away ; several times, the animals almost missed their footing, and if they had done so, nothing could have saved us from the fall. Many lives have been lost here in a similar way, and yet a cable could easily be stretched across to serve as a handrail.

About eight miles out we passed Bairro Alto, a scattered group of huts and small roças, in a wooded lowland valley, surrounded by hills of cerrado bush. On a hill-top, close by, was a large wooden village cross ; a rough frame pulpit by its side served for festival occasions, or whenever a strolling padre could be caught. My men dismounted, doffed their hats, went down on their knees and kissed with sounding smacks the base of the cross. A very woodeny death's-head and cross-bones was nailed to the wood above a box for collections. I was asked for coppers to put in, not for any charitable purposes, but for expenses of the saints' festivals, principally fireworks ; not however having any, the men observed that paper-money would do just as well, but my piety not being equal to the demand, I rode on ; the men assured me that I should be followed by misfortune, as no one passed that particular cross without bestowing a trifle in the box, otherwise bad luck would follow him. The superstition was realized in my case, for later on, I found I had lost a valuable and serviceable pocket-knife of various tools and conveniences. "I told you so, I told you so," the men chorused in reply, when I mentioned my loss. One of them was sent back on the road, but, whether he found it or not, I never saw it again.

At the east and rear of Bagri, the land falls considerably, and drains into the Rio do Peixe ; there the guide pointed out to me several spots where some of the villagers had lately prospected for and found diamonds, but apparently there was

no one of sufficient energy in the district to attempt to develop a systematic working of the deposits. The soil of the ground, elevated as it was, was freely gravelled with the round quartz pebbles of Cascelho (gravelly conglomerate), one of the indications of a possible diamond formation.

Amongst the inhabitants of the districts below Taboleiro Grande, I had not seen a single case of *papos* or goitre, that is so very endemical in the valleys of the Upper Parãopeba, yet the people and their customs and diet are similar.

Eventually, I found O——'s hut, near the margin of a purling stream of crystal water, bubbling over boulders of rock and sheltered by trees; the hut was a neat pretty little place, beautifully clean and tidy, although the floor was mother earth and the rancho only built of bare poles thatched with interlaced palm-leaves; when these huts are new and well-built, no prettier summer residence could well be designed from the products of adjoining woods; the rafters, ridge-poles and upright sides consisted of the peeled straight pale-yellow sticks of Pindahybas, and the contrast with the bright bronze-green of the thatch makes a very pleasing effect. My colleague's ruddy healthy fair-haired face and lusty figure soon darkened the doorway.

Leaving the snug and comfortable rancho of Moquem¹ the next morning, I proceeded on to headquarters at Burity Comprido, sixteen miles away, passing a very few houses and small farms on the road, and two little hamlets of some six or seven houses, known as Burityzinho² and Pindahybinha. This district is in the neighbourhood of the mouth of the Rio Parãopeba at its junction with the Rio São Francisco. It is considerably elevated above the level of the

¹ Moquem was a term used by the aboriginal natives to designate the roasted flesh of their prisoners of war.

² Pronounce *Boo-ree-tec-zeen-yo* and *Peen-dar-he-been-yah*.

rivers, the taboleiros and hills attaining an elevation of several hundreds of feet, from whence we obtained views of the broad Parãopeba, flowing in a deep valley, through amphitheatres of grassy hills extending in precipitous slopes to its margins. There are long stretches of several miles of gently undulating land, thinly covered with the dwarf vegetation of the campos or by thin cerrado. The surface of the ground is cut up every few miles by valleys, narrow deep and precipitous, where there is much water in the streams; or broad and shallow when the ground is only swampy; long groves of Burity palms and picturesque clumps of Pindahyba thickets congregate at the heads of the springs and valleys.

In this out-of-the-way corner of Minas Geraes, away from the main roads or course of traffic, I was surprised to find the district inhabited even to the extent it is, but the *sítios* or farm-houses are all small little wattle and dab structures, with tiled or thatched roofs covering alike the mud walls and the open verandahs, the latter the place of business, rest, stores, meals, rubbish, and work, for there are hammocks, rough wooden benches, old saddles, harness and raw hides, and *piloës*, all dusty, old and dirty. Outside are a few rough fences of split everlasting Aroeira wood, forming cattle-pens or enclosing small plots of vegetables and fruits, or may be, more rarely there is a cumbersome bullock-cart, or the old-fashioned *monjolo* or maize-pounder. Some of the farms are out in the open campos, some nestle in wooded dells, the houses surrounded by a wealth of vegetation, often mainly consisting of dark-leaved orange-trees, then loaded with bright red and yellow fruits. I stopped at most of the houses to inquire for labourers; I was everywhere received with civility, and coffee or a bowl of milk was generally forthcoming. Some of the farmers were bluff genial old fellows, full of chaff and curiosity and jocularly; others

were indifferent and dyspeptic yellow-wizened individuals, to whom life seemed a wearisome existence, who tried to kill time by perpetual cigarette smoking and sleeping in hammocks. I received everywhere bad accounts of the insalubrity of the district, especially of the swampy margins of the São Francisco, and certainly there were many indications, in the *bistre* faces and bloodless lips of many of the inhabitants, of the prevalence of malaria. I picked up a few men for my work, but was given to understand that their working for me must be considered quite as a favour. One man, dozing on a bench, in reply to my question whether



Muito occupado.

he would work for me or not, gave a terrific yawn and said, that perhaps in a week or two he might come, but that then he was *muito occupado* (very occupied) ; he looked as though he had been asleep for a week.

I found the new headquarter camp of huts and tents, pitched by the edge of a cerrado on the top of the grassy slopes of a long narrow Burity valley, down the centre of which were long sinuous winding groves of Burity palms³

³ *Mauritia vinifera*. These beautiful, stately, fan-leaved palms were met with in great luxuriance in the borders of Goyaz and Bahia, and there more fully mentioned.

great and small. It was a picturesque locality, about two miles away from the waters of the Rio São Francisco. Near it was a small *sítio* and cattle-breeder's homestead, that served to create at least a feeling of the existence of humanity in the otherwise solitude. The cerrado, hard by, contained vast quantities of wild mangaba-trees,⁴ loaded with delicious fruit, than which I know no better. Some day, the valuable indiarubber production of these trees will certainly be largely utilized and become an article of exportation, for the quality of the rubber is said to be superior to that of the *seringueira*,⁵ or true rubber-tree of the Amazon valley, and these trees are found covering many hundreds of square miles of the *taboleiros*. Amongst the trees and bush, bordering the Burity Comprido stream, there were considerable quantities of wild vanilla, and in some places the strong and powerful perfume impregnated the atmosphere for a considerable distance around; I found it only in flower and could obtain no information about the development of the valuable bean, as the people were unacquainted with its merits and uses.

⁴ *Hancornia speciosa*.

⁵ *Siphonia elastica*.

CHAPTER IX.

MY THIRD, OR THE FIFTEENTH SECTION OF THE SURVEY.

My first rancho built—Doleful first impressions of the Rio São Francisco—Mosquitos, and a remedy for them—Plagued with cattle—They eat up my trousers and boots—The swamps and malarious forests of the river-side—Fevers commence—A malarious district—A bathing establishment—My neighbours—A little amazon—Christmas Day—A survey over the Campos—A roving distressed British subject—A new camp—The Britisher a failure—The fevers spread—Ugly lake—Depressing effects of malarious climate—An uncom-

fortable night—Increase of fevers—Deserted by the men—A painful position—An anxious and weary ride—Reinforcements—Precautions against fever—Disastrous Sunday travelling—The new camp—Abundance of game—A kind neighbour—A relic—Caught at last—Brazilian Nimrods—A specimen day's work—Commissariat difficulties—Poverty of the inhabitants and their characters—I become a medico—Astonishing effects of Cockle's pills.



The Burity palm.

THE day after my arrival at Burity Comprido I collected my men, eight in number, and started off to prospect my new section and establish a camp. About six miles to the north is a stream, the Corrego d'Estrema, in a wide deep valley of cerrado and campos; the rivulet meanders through a belt of

forest that occupies the centre and lower part of the depres-

sion. There was only one small *sítio*, a poor little mud house, dirty dilapidated and poverty-stricken, about a mile away on the borders of the woods, but the people were kindly disposed, and welcomed me to their neighbourhood. I came across an abandoned ruinous hut a little further down the valley, that with a little patching-up would serve for the men's quarters. On a higher slope of the valley I had the ground cleared and the preparations made for building a rancho, pitched my new tent that I had just received from the stores, left the men to construct my hut, and then rode back to Burity to go with Mr. B—— to see for the first time our long-expected bourne, the great Rio São Francisco. This river had been so long the goal of my expectations, had been so much talked about and discussed, so many stories had been related of its supposed marvels and mythical dangers, that my imagination had long since conjured up pictures of something extraordinary. I indefinitely felt I was upon the verge of the marvellous, and yet, as we rode down the valley of the Burity Comprido through an interminable and commonplace cerrado, and finally emerged on to a long marsh, fringed on its further side by a narrow belt of forest not a hundred yards wide, that capped the banks of the river—well, my wild imaginings gradually oozed away; it was very prosaic, and extremely hot and sultry. We reached a little landing-place where a rough path led down the steep lofty bank thirty feet high, to a ferry-canoe. The place is known as Porto da Povoação, and leads to an old mining village on the further side of the river, Morada Nova. The first sight of the river was undoubtedly disappointing. A placidly-flowing stream, about 1000 feet in width, of dirty water of a weak pea-soup consistence and colour. The banks were high and precipitous, and covered with many deposits of slimy mud; up and down stream they were

topped by an uninterrupted belt of forest of large trees, small trees, bushes, hanging festoons of creepers and convulvi; here and there the waters had undermined the banks and huge trees had fallen and stretched out their slime-covered skeleton forms, like the bones of some monster. The mosquitos were lively, and piped their dismal notes around us, the air was hot and oppressive, there was an all-pervading smell and sensation of slime, the leaves of the lower bushes, the decaying leaves of the floor of the forest, the banks, old logs and dead tree-trunks were grey with the deposited mud of past floods; and behind the long strips of woods were long stretches of marshy grass-lands here and there containing pools of stagnant water; further inland, the land rises, sometimes in gentle slopes, sometimes in precipitous grass-covered bluffs to the high table-lands that close in the valley of the river. At the base of these bluffs are again long and far-extending narrow belts of forest. The heat radiated in quivering rays, from the damp steaming marshes; an oppressive stillness prevailed, the birds were few and quiet, the hum of even insects was hardly perceptible, only the ripple of the river as it flowed by a submerged trunk, or the occasional splash of a fish, disturbed the silence that made the heat appear more suffocating—a hot steamy heat, like a vapour-bath, that made one's clothes clammy and moist. Certainly it was a very suggestive fever-producing locality, very nicely constituted for the purpose, and the prospect of a long residence in it was not enthralling; a place one would prefer to read about at home rather than live in, and there was nothing apparently to redeem its faults, there appeared to be no game, no wild Indians to make things lively, no excitement of any kind, nothing to hope for except fevers and snakes, and they may perhaps provide an occasional change.

In a day or two the hut was finished and my baggage moved

in, and work commenced up the valley of the main river. After the last few holidays amongst my colleagues, it required several days' hard work to again get into harness and accustom oneself to the long solitary evenings. I had not been long in this new camp, before the mosquitos sent their battalions from the woods, probably attracted by the light. Only those who have tried to work at a table barely lighted by the flickering flame of the coarse wick of the common castor-oil country lamps, can form an idea of the irritation produced by clouds of mosquitos, singing a roaring song around one's head, and stinging hands, legs, face, neck, driving their drills through cloth or flannel clothes. Yet I do not know which is the most maddening, their demoniacal incessant little high-pitched treble notes or the stinging smart of their probes. But my men used an excellent and infallible remedy, that I at once practised with success, namely, by making a fire of dried cow-dung (*estrume de gado*) on the floor of the rancho. I imagine the fumes of ammonia that must be generated by the heat is objectionable to the insects; whatever it is, it cleared the place most effectually, making it seem a paradise in comparison.

Another source of annoyance, was the large numbers of cattle that congregated around my hut at night, bellowing, rubbing against the corners of the hut, and perpetually tearing away the thatch; continual sallying out was of no avail, for they returned immediately afterwards, snorting and bellowing in a frantic desire for salt or anything saline; they will masticate anything we have handled, a stick that we may have carried, and old boots and clothes they are especially fond of, for I had thrown away one old pair and found them afterwards reduced to a pulp, and one morning when I got up I could not find my nether garments; I was perfectly sure I had worn them the previous

day, and that no one had entered my hut during the night, as the door was fastened on the inside. I called my servant, and a good search was made, but without success, and the fact remained a mystery. Adão suggested *Almas*, (ghosts). On proceeding along my usual path afterwards to the work, I saw a piece of the material on the ground, all wet and covered with saliva; farther on another piece with the buttons all bent; then it beamed upon me the reason of the cattle's persistent attacks on the thatch, in their efforts to drag out my clothes suspended against the sides. After this I constructed a fence around the hut, and had to put up with the bellowings and nightly concerts. But the perseverance of these cattle is astonishing, they followed us to the picadas, and chewed up any of the ranging-rods left in the cuttings. The grasses and other vegetable productions of this district must be strangely deficient in saline properties.

The survey had to traverse the dense woods lying between the riverside swamps and the base of the adjoining hill slopes; these woods are exceptionally unhealthy, for they are alongside the exhalations of the marshes, and within their recesses, numerous pools of black stagnant water, filled with rotten vegetable matter, generate clouds of mosquitos, and the air smells like that of a close vault—a faint and sickly odour. The vegetation is rank and luxuriant, mosses, ferns, parasites, orchids, and lichens cover every trunk and bough and rocky boulder; red-banded butterflies flutter like two eyes of fire in the sombre gloom; repulsive-looking toads frequent the Stygian pools. Several snakes had been killed, lovely coral snakes and dangerous leaping *surucucus*.¹ In spite of my remonstrations, the men will drink the stagnant water of the marshes; I preferred to go thirsty,

¹ Sometimes called the Salamander snake, on account of its attraction to the light of fire. ²The *Crotalus mutus* of Linnæus.

even if my parched tongue clove to my mouth, rather than touch the clear but deadly water. In a few days the natural results ensued ; the men began to get weary, and complain of fatigue and headaches, followed soon after by attacks of fever, sometimes ushered in by preliminary rigours of cold, but often the fever developed from a stage of prostration. I administered ipecacuanha, castor-oil, and quinine, with such good results, that many of the men returned to work in a day or two, but several at once left the service.

Two of my neighbours from the *sítio*² close by, who had been engaged, (two yellow-skinned meagre individuals,) were the first to collapse with the fever and leave my service. I was not sorry, for they, like most of the other men I had picked up in this district, had not the stamina necessary to endure a long heavy day's work with *foice* and *machada* (billhook and axe); and were not to be compared with the tough sinewy fellows of the Parãopeba districts, a fact that can hardly be wondered at, as their diet is more vegetarian, consisting chiefly of pumpkins, *farinha*, beans without *toucinho*, and no fresh or dried beef, and they must have been more-over impregnated with malaria. One man, the Caboclo from Taboleiro Grande, Felicissimo the gymnast, scared at the prevalence of fever, cut a walking-stick from a Pau Pereira-tree,³ the bark of which is an aromatic bitter and anti-febrile, he carried this with him constantly and nibbled at it as he went along, despite the bantering remarks of his companions.

Although that was then the rainy season, very little rain fell, and when it did, it came only in the form of a short sharp shower, after several days of dry sultry weather. Great care is advisable in these districts to avoid getting a ducking, for whenever the men got wet, they almost invariably had an attack of chills and fever. I had more respect for

² A small farm.

³ *Geissospermum Vellozii*.

the consequences of a wetting than for snakes or any other cause of dread.

The camp at Estrema, pitched on the slopes of the valley of this stream, was surrounded by the dry acrid dwarf scrubby vegetation, that covers all these hills of the upper São Francisco. The soil is extremely poor and practically useless, except for a very meagre grazing-ground for cattle. The immediate banks of the Estrema are densely covered with woods, that look like second growth, for the trees are not of any great size, neither are the creeping vines conspicuous in size or number, neither does there exist much underwood; the vegetation resembles a forest of saplings interspersed with occasionally large trees.

About 200 yards down the hill, in front of the hut, just within the woods, there was a natural grotto in rocks of clay slate, composed of several natural basins of water fed by the water that dripped and trickled from the rocks above; there were ferns innumerable, the foliage of the many plants was delicate in form and colour, and when a stray ray of sunlight penetrated the dark roof of foliage overhead and the shady gloom of the overhanging rocks, it became a lovely scene; but so suggestive of snakes and chills, for there is such an air of dampness in the slimy mossy rocks, the slippery wet soil, the stilled atmosphere and darkened light—an all-pervading musty smell of decaying vegetation, stagnant water and pungent plants; and the steely-blue mosquitos, and fluttering red-banded butterflies, added to the sensation of palpable malaria; yet this, in one of the pools of pellucid water in a natural tank in the rocks, was my bathing establishment.

About half a mile from the camp was the small homestead, already mentioned, belonging to a large family of three generations; some of the adult males worked for me at

irregular times to earn a few milreis ; they were all extremely poor, their clothes were ragged, the house was squalid in the extreme, and their food simply the vegetable produce of the *roça*, for although they owned a good many head of cattle, they did not kill, as they could not afford to buy the costly salt to preserve the meat. One of their children, a pretty little whitey girl, about nine or ten years old, was a wild young amazon ; it was a sight to see her astride the bare back of a horse, going at full speed, guided only by a rope tied around his mouth, dashing through bush and dodging the branches, with her hair and short skirts streaming in the wind. Nearly every day she passed my rancho chasing cattle, shouting and waving her arms.

Sometimes on a Sunday I received a state visit from the tenants of the *sítio* ; one middle-aged pale sallow-complexioned woman, three younger women, the little amazon, and two or three children ; the older woman was very garrulous and monopolized the conversation ; the younger ones were passing comely but bashful, and only giggled when spoken to, the lithe little amazon was the brightest and most interesting, the other children were *enfants terribles*. The men afterwards followed in their best boiled shirts, white cotton coats and trousers ; there was much handshaking, for in this free country, where every man is as good as his neighbour, every one shakes hands with a stranger, even a labourer when he applies for work.

Christmas Day of 1873, was passed at Moquem with O——, C——, and Peter, in an endeavour to rub out some of the marsh gas from our constitutions. A man must be indeed a misanthrope, if after some weeks of solitary loneliness of the camp, he does not appreciate a reunion of comrades like this. It was not a temperance party, neither a quakers' meeting, and we tried our best, and succeeded, to do away with "dull

care," and keep up a merry Christmas, although the thermometer registered 88° in the rancho in the day.

After this little change, I moved temporarily to headquarters to make a survey of an alternative line across the *taboleiros*; what a grand difference it is working on these open elevated lands, to the mosquito-infested jungle and marshes, and hot humid heat of the river valley, and how rapid the work progresses. In ten days I had surveyed, levelled, and plotted fourteen miles, only three miles less than the distance that occupied me five months to complete on the first section.

During my stay there, the asthmatical invalid, H. G—, (who had gone with a *camarada* to take stores down the river to W—, who was ill with fever on his section, thirty-four miles away,) returned with his *camarada*, both trembling with the chills. They had had to ford streams, and had got wet in the rain, quite enough now to develop the disease.

One day, we were surprised to see a very seedy-looking wandering Englishman arrive at camp and ask for work; he looked a pitiable object, his limbs were bloated and swollen, his bare feet inflamed and blistered; he was badly sunburnt, bleary-eyed, and worn out with fatigue. He said he was a sailor, and had been exploring for diamonds in Diamantina, but he had used up all his resources, and hearing that there was an English party of engineers at work, he came to offer his services. As a distressed countryman, I could not well refuse to take him on to the work, although I would much rather be accompanied in these solitudes by the rough Brazilian countryman, rather than with doubtful Englishmen, of whose antecedents nothing is known. After resting him a day or two, I sent him with a party of men to build huts for a new camp, near the mouth of the Burity Comprido.

The new camp was rather prettily situated; the hut

was pitched on the brow of a hill, overlooking the long green marshes and woods of the riverside, and the undulating elevated highlands of the opposite side of the river ; the slope of the hill was covered with tufts of thin grass, interspersed with boulders and pebbles of quartz of all colours and varieties ; behind was the scrubby cerrado of the *taboleiros* ; the men had foolishly built their rancho at the foot of the hill on the borders of the marsh, so as to be near the water of the Burity Comprido stream, and thereby save trouble in carrying water for cooking : the inevitable result of such an abode on the level of the swamp was that eventually not one escaped the fever.

Mr. Joe Mortimer, the new acquisition, sad to relate, was a great failure ; he was fat and lazy, too slow in his movements for chaining, and with a bill-hook in his clumsy hand he was dangerous to any one near him ; he was absolutely useless with an axe, and the subject of much quiet bantering by the men, who were highly amused at his blundering work, and constant tripping and falls over the vines and stumps, and at his queer jargon of broken Portuguese ; at last I made him remain at the rancho as cook, where he dozed away the greater part of the day. I had locked all my trunks, but forgot to put away the spirit-stores, that soon rapidly diminished, and Mr. Joe became every day sleepier, lazier, and more fuddled, and one day, after calling in vain for my dinner, my boy Adão came to inform me that the beans were all burnt, and Mr. Joe was sleeping so soundly that they could not awake him. I found him looking the picture of imbecilic intoxication, asleep on a hide, his clothes all awry, and the men looking at him with wonderment. A few vigorous kicks, and the application of the flat side of a bill-hook on a rounded portion of his recumbent person, brought him to a sitting posture ; but as he staggered to his feet, he fell into the fire and knocked over a fresh pot of

beans. We dragged him out to the open air, laid him on the grass, and the men, by my directions, soused him with buckets of water. But even so, he was too far gone to collect his senses. The next morning he received his marching orders. I was very annoyed and pained with this disgraceful exhibition of a degraded fellow-countryman.⁴ I heard afterwards that he had found his way to Bagri, where he obtained work as a bricklayer on the church repairs at 4000 reis per day (eight shillings).

The weather now became exceedingly hot and sultry, and the insects did not create a paradise; sand-flies swarmed in the day, and mosquitos by night; the former are minute as a grain of fine gunpowder, they draw blood at every bite, that leaves a small black spot for several days; hands, face, and neck become covered with the black dots, and the smart at first is very sharp. The mosquitos are avoided by burning dry cow-dung in the rancho at night.

As the season advanced, more and more of the men fell victims to the fever and ague, yet for a time they very pluckily stuck to their work, and even chaffed each other when one was seized with the well-known signs, in the blanched drawn countenance and trembling limbs; several returned to work in the intervals of the attacks, but many went away to their homes, and much valuable time was lost in being so short-handed and in having to scour the country in search of other men.

There was one particularly ugly place, known as Lagoa

⁴ Many years' experience of the lower class of Englishmen in Brazil has convinced me of their utter unworthiness. At home they keep within the bounds that habit and training has made them accustomed to, but on arriving in this free country, they receive courteous attention and a consideration from their fellow-Brazilian workmen, that they cannot understand, and assume airs and arrogant manners, squander their high wages in treating each other, and become inveterate drunkards and unreliable workmen. The exceptions are few and rare, so much so that I make it an invariable rule not to employ the British workman on any of my works in Brazil if it can possibly be avoided.

Feia (Ugly Lake). It was about an acre in extent of black slimy stagnant water, surrounded by dense rank vegetation, lovely as a picture of rank tropical vegetation, but the very incarnation of a fever haunt. Black slimy decaying logs and masses of rotten boughs and leaves festered in the torrid heat; not a breath of air rippled the glassy surface of the Stygian water, and tall trees towered over it, partly shrouding it from light and air, and lilies, aroids, tall reeds, and tangled bush formed its borders, and the superstition of the inhabitants peopled it with the creation of things foul and monstrous; they looked at it from a distance with bated breath, and hurried by its neighbourhood with low voices, describing how a certain Fulano de Tal has seen a Lobo-homen (Wolf-man) and other absurdities on its margins.

The work in these jungles and in the hot humid atmosphere of the marshes was very fatiguing, and generated a lassitude that was difficult to struggle against, one's limbs ached with weariness, so different to the buoyancy and elation that one feels in the open campos lands; the men worked with languor and want of go, no cheery voices were heard singing wild choruses to the crash of falling trees, it was dull plodding work, with aching head and parched lips, stung and tortured by mosquitos, hornets, bees, and poisonous thorns and bramble; the return home in the afternoon or evening to my comfortable rancho, dinner, and an hour's welcome well-earned lounge in the hammock before commencing the evening work, was a slight recompense for the day's toil.

The only recreation was an occasional visit on Sunday to headquarters, or a ride over the *taboleiros* in search of men. Possibly there is game in these woods, and fish in the river, but I had no time to look for either. Prospecting the ground, laying out picadas, taking bearings and angles, chaining, levelling, and checking levels, cutting and levelling cross-sections,

plotting plans and sections, and all notes and documents made in duplicate, looking for men, and arranging commissariat supplies, all provided ample occupation for one man.

One day, towards the end of January, I happened to be at headquarters when D—— and G—— arrived from their work near Taboleiro Grande, when I learned to my satisfaction that G—— was coming on to my section as an assistant. Although headquarters appeared to be specially designed and managed to offer no inducements to any of the staff to remain longer than was absolutely indispensable, I was foolish enough to accept an invitation to remain for the night ; and on these rare and festive occasions of the meeting together of any members of the staff, the strict bonds of propriety were slightly loosened, tongues wagged, corks popped, and clouds of tobacco were by no means rare. That evening a tent was put up for our accommodation, and two rough bedsteads of sticks hastily constructed, and late at night we duly turned in, I taking a hide on the ground, with my rug and saddle for bedclothes and pillow. G——d had not been long on his gridiron-like bed, before he energetically stated he could stand it no longer, and objected to be turned into a page of ruled foolscap, and forthwith shared the downy softness of my bullock-hide and saddle on the ground. I was eventually awakened by the noise of heavy rain beating on the canvas, the gurgling of water, and a sensation of cold and wet ; several little streams of water were flowing under my couch of bullock-hide. I called G——d.

"Halloa !" he replied, "are we in a river ? I am sopping wet. What's the matter ?"

"It's only raining. Where are the matches ?"

"Here, all wet ; the rain is coming through the canvas like a sieve, and my clothes are all wet on the bed."

"Well, get D——'s clothes."

"They are all wet too."

"Do not push me out of bed into the 'river;' get up and make a rush for G——'s hut."

"Impossible! How can any one see the way in this blackness; but I am so wet and muddy, and so cold. Oh! isn't this delightful?"

"Yes, very jolly. I expect we shall have the 'shakes' to-morrow."

"Where is that little black bottle?"

"Here; but D—— has exhausted it."

"Confound him! how happily and contented he sleeps on his sticks."

"Wake him up."

"No, leave him in peace and comfort, he is equably wet internally and externally."

"Well, I have yet a dry corner, and shall stop where I am; snuggle up, and keep your muddy legs out of my back. I'm off to sleep; good-night."

What disreputable-looking beings we appeared the next morning, and what eager inquiries were made for hot coffee with the first lights of dawn. The tent had been put up in a hurry on sloping ground, and no ditch had been dug around it.

I will now hurry over the next month or two, for it was a long weary struggle against climate. All the engineers were down with fever; not a single one of my men had escaped; my assistant was seriously ill, even delirious; all my old followers from Taboleiro Grande were confirmed invalids; one especially, Teixeira, was so debilitated that he could not walk, his limbs were swollen and his body emaciated, his gaunt brown face looked ghastly. The greater number of men had returned to their homes, six of whom I heard eventually died. The climax was reached when one day the few men remaining

came to me in a body, and stated their intention to abandon me and leave at once. I talked, I appealed, I coaxed, I threatened—all was unavailing. I could only induce them to take away the invalids to somewhere, anywhere, which they promised to do ; no inducement would prevail upon them or any single one to stay, they said it was suicide to remain in such a place.

I could not diagnose my companion's sickness ; all that night he had a raging delirious fever, and once when I went to the men's rancho, to make him a cup of beef-tea from extract of meat, I heard shots from a revolver, and found him on my return firing at the water-jug that had been making grimaces at him. Headquarters had removed, and I knew it would be perfectly useless to take him to any of the neighbours, as he would only probably die, consequently I determined to take him to Bagri, and get medical aid from the town of Curvello. It was not a pleasant morning when I found myself alone in the camp with a delirious man, but he was quieter, although still delirious. I strapped him down in his bed; and then went off for the animals. My old mule, as usual was outside, waiting for his matutinal feed of corn, but my companion's horse required a long chase. I cooked some breakfast, dressed my comrade, and got him on his horse, and rode him thirty-six miles that day to Bagri. The passage of the Rio do Peixe was a few thrilling moments ; the current was strong and the rocky bottom was slippery, and required a man's sole care to take care of himself and animal, and my companion was incapable of either. He swayed in his saddle where a fall would have been certain death ; the animals slipped and slipped, and were carried towards the edge of the falls, but he had sense enough to hold on, and by dint of spurring and shouting, I finally reached the opposite shore in safety. It was truly only a few moments of anxiety, but

they can be better imagined than described. By repeated doses of weak brandy and water G—— obtained a fictitious strength, that perhaps enabled him to stand the fatigue ; and with many rests and by riding hard in his lucid intervals, enabled him to hold out to the end. Fortunately it was a moonlight evening and a clear night, otherwise I should not have been able to carry out my task. Thirty-six miles, with a good horse and road, is certainly no great journey ; but under my conditions it was long and wearisome, and I felt truly thankful as we rode into the village of Bagri to the welcome *hospedaría* of Pedro Pinto, and more so when unexpectedly was found there C—— and Peter, who had moved to these healthier regions to finish the plotting and final work of their section, for C—— and G——d had been schoolmates at Marlborough, and my companion would be well cared for by his old school friend.

It was necessary to spend two days at Bagri before a new supply of men could be obtained, more than I actually required, so as to allow for gaps in the ranks. It was not with a pleasant feeling that the return to camp was made. I had hitherto escaped the fevers, but could not reasonably count upon a prolonged exemption. My so-far good fortune could not be attributed to any physical powers of resisting the influences of the malaria, as more constitutionally stronger members of the staff had already fallen victims, but principally to a few well-known preventive measures that I had adopted,—namely, to exclude as much night air as possible from the interior of the rancho by burning fires, and covering the bed with a small calico tent and mosquito curtains ; not to leave the rancho before the morning dews were dissipated by the sun, and then only to go out after taking a grain or two of quinine with coffee and eggs ; not to drink any doubtful water, rather remain with dry and parched mouth ; smoke everywhere, and keep the mouth shut as much as possible ;

remain within doors after sunset, and occupy a location high above the marshes. All my colleagues had suffered and were yet suffering, and not a man, out of sixty-five who had worked for me, had escaped an attack. On one of the sections below, the engineer had suspended work until the approach of the cool season. He himself was seriously ill ; another one had been laid up for several weeks with rheumatic fever.



Feroz.

Before leaving this camp I had ridden again to Bagri, to see how B. G—— was faring. I found him much better, but still weak and unfit for work. During his stay there he had purchased a dog for fifteen milreis, but he found the brute so savage and unmanageable that he offered him to me. It was a splendid specimen of a dog of the bloodhound type, two feet high, and magnificently brindled. His nose was rather pointed, muzzle and mouth black, heavy hanging jaws, a massive jowl that appeared less so by reason of an extra-

ordinary development of his massive neck, so thick that the folds of skin projected over his collar in rings ; his chest was broad, and altogether his splendid form made a picture of canine strength and ferocity, although his cropped ears and tail much disfigured his appearance. He was what is known as a Rio Grande do Sul muleteer's dog (*Cachorro de tropeiro do Rio Grande do Sul*), and answered to the name of *Feroz* (Fierce). I took him back to my rancho, and there tied him up and kept him dinnerless till the next morning, when I offered him food ; but as he rushed at me with a savage growl, I gave him stick instead. I kept him all that day and the next without food, and thrashed him whenever he attempted to growl. Finally I effectually conquered him, and he became to me afterwards a most faithful and intelligent comrade, and followed me through Brazil to the coast, and ever proved himself a most faithful watch-dog and possessed of the keenest scent.

The 5th of April gave me the satisfaction of seeing all the work of the Burity Comprido district thoroughly completed, and my effects packed in a bullock-cart *en route* to another camp in what was hoped to be a healthier district, or at least a more salubrious residence on the hills beyond a Riacho da Porta further down the river. Although the distance between the two camps was less than five miles, the cart had to travel double that extent, to avoid the deep gulleys of many intervening streams. It was with a feeling of great elation that I bade a final adieu to the then familiar scenes and the old camp, the scene of so many vicissitudes. It was pleasant to get away, as this part of the country was very devoid of game or animal life. During my four months' sojourn I had seen only two emas, a few serenhemas, a few cordonas, (a species of tinamus,) a few parrots, but many yellow-beaked toucans, several varieties of smaller birds but few in number, and only

one deer ; and on one occasion the fresh tracks of a jaguar near my rancho indicated his proximity, but no one caught a sight of him. Some ocelots, or tiger-cats, created great depredation on my stock of fowls, and about a dozen of snakes were killed—*jararacas*, *rattlesnakes*, *coral-snakes*, *surucucus* and harmless green snakes—not so many as one would expect to find in these woods and marshes, but they included the three most venomous species found in Brazil. Although in this country there are in many places considerable numbers of these dangerous reptiles, it is extremely rare that any fatality occurs, owing possibly to the absence of any one to bite in such a country of scattered habitations.

The move was made on a Sunday, much to the dislike of the men, who prognosticated disaster therefrom, and, true enough, there ensued sufficient mishaps. First the cart carried away a gate-post and gate of a *sítio*, then a bullock became sick and had to be exchanged, then the cart broke down and had to be repaired ; and finally, in crossing the Riacho Fundo, over a very shaky bridge, the latter collapsed, and precipitated cart, cattle, and baggage into deep water, drowning my fowls, killing a bullock, injuring two others, and wetting all the stores and baggage. Such a mess there was ; it was all my fault for working on Sunday, I was told. It was 8 p.m. before we got the baggage housed in a small homestead hard by. The contents of the trunks were simply cubic masses of sopping-wet articles—the paper-money was almost a pulp.

I had ordered two huts to be built ready for me, but they were so badly constructed, so small and down in a deep hollow, that I abandoned them and chose another site on the brow of a large rounded hill. The new position was very pleasing, for it commanded extensive views of an extremely picturesque country. The surface of the hill was covered with a thin wiry grass and a few scattered trees, and near the riverside end by a

thicket of woods, that was convenient to provide materials for the rancho. The summit of the hill was very even, and strewn with very curious-looking cubes of a kind of clay slate, some single, others in a form of conglomerate. Upon splitting these cubes, the interior was found to contain a cavity surrounded by crystalline sulphuret of iron; when first cracked the crystals showed a brilliant metallic lustre, like silver, but in a few days became oxydized, and more resembled brass. Right and left of the ridge the hill fell away, to the south to a deep beautifully-clear stream of water, flowing through a gorge of yellow clay-slate rock, worn into holes and steps and deep pools. Not an atom of soft earth marred this splendid bath; the stream was really a succession of pools and cascades, all affording delicious bathing facilities; the margins were occasionally fringed by the Guariroba palms⁵ and clumps of bamboos. The other side of the hill sloped down to a deep wide far-extending forest-clad valley—a dense mass of billowy vegetation, a dark-green verdure, variegated with numbers of flowering trees. Inland, to the east, the hill gradually ascended until it reached about a mile away, the base of a lofty hill of trap-rock, which name is well justified in this case, for the hill is contoured by a series of encircling level formations, like a stair or series of steps, as in the pyramids of Egypt, hence the origin of the Swedish name—*trappa*, a stair. The hill looks as though it had at some distant time been covered with water, that had receded at various periods, and left the levels of its wear and tear as it disappeared. Beyond the wooded valley is a long range of enclosing hills, that are really the bluffs of table-lands. In other directions, to the west, is the swampy valley of the river, with its long

⁵ *Cocos oleracea*, Mart. The heart of the stipe of this palm is much esteemed by the Mineiros as an article of food, but it is too bitter to be palatable to an unacquired taste.

and far-extending green marshes and belts of forest ; and beyond these are long rolling hills of grass or cerrado, divided by deep wide valleys of forest. The bed of the river in this district is very rocky, and many prominent and submerged rocks form cataracts in several bends of the stream.

A capital rancho was built in three days from the materials provided by the adjoining wood ; not a nail or rope was employed in the structure, and yet it was provided with doors and windows. If it had not been indispensable to follow the work into the lowlands of the river valley, I could have been very contented to remain a long time in this pleasant situation, for game of many kinds was very abundant, perdice and deer existed in great numbers, especially the former, an excellent partridge ; at sunset their melancholy notes were heard in all directions far and near, and in the mornings large coveys congregated in front of my rancho, picking up the grains of corn dropped by the mule. It was like shooting barn-door fowls.

There was a kind neighbour who lived a few miles away, who paid me daily visits, and never failed to bring a present of some game, a paca, a cotia, a peccary, a perdiz, a cardona, or a fish. He apparently spent his whole time in shooting and fishing, for all the time I knew him he did nothing else.

In the wood behind the hut were the vestiges of what must have been once a large establishment or farm ; there were massive beams strewn the ground partly hidden amidst huge trees and thick bushes. There is a tradition that beyond the memory of the oldest inhabitant there existed here a rich fazenda and mining works, that was deserted owing to malignant fevers that killed nearly all the slaves and occupiers, and yet the site appeared extremely healthy, high as it was above the marsh.

After five weeks (and although the temperature became much lower, 80° in the day and 68° at night), still there was

considerable sickness amongst the men, but not of such a severe form as previously, and they became accustomed to the recurrent attacks as an ordinary occurrence. The surveys still had to be driven through thick forest on the margins of swamps that showed every indication or suggestion of malaria, but I began to congratulate myself that, as I had so wonderfully escaped the fever until then, and that now the cool weather had commenced, I should probably escape. But alas ! it was not to be.

I had been feeling unwell for a long time with continual attacks of dyspepsia without apparent cause, when one day in the picada I felt as though a stream of icy water was being poured down my spine, the extremities of my fingers were numbed and cold, my face felt blanched and pinched ; the men saw the well-known signs and thought it a good joke, for it had become such a customary occurrence that the object was more a subject of chaff, than of pity. "*Ora rapaziada ! agora afinal o Senhor Doutor apanhou !*" (Holloa, boys ! now the Senhor Doutor has got it at last). The mule was sent for, and I cantered home : how icy cold the wind felt, it seemed to chill one's very marrow ; I seemed to freeze, to be turning to ice ; I swung my arms and beat the palms of my hands on my shoulders like a London cabby on a frosty night. Reaching the hut, a fire was made on the floor, and I plunged into bed and piled up all the rugs and clothes that could be collected. Shake and shiver ! The rattle of an express train is peaceful quiet in comparison. My blood seemed turned to ice. Hot toddy has no effect. I abjured my own prescriptions in the craving to get warm. After two hours the paroxysm gradually ceased, and a grateful feeling of warmth crept over one ; unfortunately it did not remain at a pleasant temperature, for the heat increased, and increased, until I felt red-hot, followed by a maddening headache. Away

went the clothes ; the fire was put out, it was insufferable ; the place was an oven. Adão, my boy, plied me with water and ipecacuanha. After two hours of this stage the fever abated and a profuse perspiration occurred, followed by great temporary prostration that lasted another two hours, when I arose, feeling rather uncertain as to my whereabouts, but all semblance of fever had disappeared. I had my dinner and did a long evening's work. One or two of the men had occasionally looked in, but they expressed no interest in my case, it was too common an event ; they will play their guitars and sing when maybe a couple of comrades are lying down alongside them with violent headaches and high fever.

There are two varieties of the sickness, *maleitas* and *sezoês*. *Sezoês* is the usual Brazilian term for fever and ague, but here it is applied to a form of quotidian marsh fever that commences with a violent throbbing headache, accompanied with fever ; the preliminary chills are very slight, and often entirely absent ; it recurs every day. I noticed that the local men were more subject to this form, and as they had their homes in the neighbourhood, within say twelve miles, they always left the work. Six of them died, and others became terrible invalids with swollen limbs and ghastly bistre complexions. The ordinary tertian ague form is here known as *maleitas*. The fevers of both varieties appear to be only endemic to the lowlands of the actual valley of the river and for some miles up some of its tributaries, where in time of floods the waters, *represadas* (backed up), flood the adjoining lowlands and form marshes.

From what I have seen of the nature of this upper São Francisco valley, I have not the slightest hesitation in expressing an opinion that this endemical fever could be largely, if not altogether exterminated by constructing outlets or drainage to the river as the waters subside, and the valley

could be made not only (as it actually is,) very fertile, but also salubrious ; but to expect such an effort from the Brazilian *matuto*—well, only those who know him can conceive how vain it would be to expect it. He is not *acostumado*, and is as conservative as a Chinese.

One man, Teixeira, a dark *caboclo*, who had followed me from Mesquita, suffered fearfully from *maleitas* ; with repeated attacks he became utterly incapacitated for work. His tall meagre form and dark-brown face looked horrible, his limbs were swollen and disfigured, his face and body were emaciated, his complexion was a greyish-brown. Poor Teixeira, he had been a faithful follower, and I was glad to see him better, and able to mount a horse and return to his family, before I left.

A twenty-four grain dose of quinine stopped a return of my fever, and the last few weeks of my stay was occupied in indoor work.

The weather meanwhile had greatly improved, cool winds in the day, and cold bright almost frosty nights, that necessitated a fire in the rancho. The pile of blazing logs on the earthen carpet was almost a companion in such a lonely life. Who has not at home watched the flickering lights and glows of the fireside in comfortable if solitary chambers, and thought of old scenes, or the present or the future ? Outside, what a solitude ! where the bright moon appeared beyend the waving leaves of the Burity and Guariroba palms in the hollow hard by, and the firmament bright and clear, made the whole landscape distinctly seen ; and in the quietude of the night strange cries come from far and near, the curious howl of the Brazilian wolf, the deep roar of the howling monkey, or more rarely the deep roar of a jaguar, or weird cries and calls of night-birds. It was so very dull and lonely.

One day I was surprised by a passing troop of *caçadores* (hunters) in pursuit of deer and perdice. What a contrast

they presented to the conventional idea of hunters! One conjures up a vision of wild-looking men, with gay prancing steeds, flowing ponchos, etc., etc. But the reality at Riacho da Porta was anything but picturesque: some eight very harmless-looking whitey-brown very out-at-elbow men, clad in dirty and ragged cotton clothes, short jacket, trowsers, and shirt, and a narrow-brimmed straw hat, mounted on small very bony horses, and accompanied by a score of half-starved mongrel yelping curs. The guns were small-bore, of cheap Belgian manufacture, that can be bought in any village for ten or twelve shillings. These men leave their homes with a bag of *farinha* and salt, and hunt for days and days, sleeping wherever the chase may take them. Their usual mode of procedure for hunting deer is to start the dogs at some likely-looking forest or cerrado, and spreading themselves out in a cordon, wait for a chance of a shot. There is no actual chase, although no grander ground could be desired. At other times they devote days to shooting *perdices*, which they salt and sell in the towns and villages.

Before leaving this section, a description of an average day's work may be appreciated by some readers who may be desirous of forming an idea of an engineer's daily life on a survey in this district.

At this season of the year (May, June) the early mornings are cold and chilly, and the first gleams of day break upon a heavy moisture-laden atmosphere, not sufficiently foggy to obscure the landscape, but in lumps of drifting spray-like vapour, similar to what arises from a big waterfall, a myriad of infinitesimal dewdrops. The men receive their orders the previous evening, and start off to their work at dawn, (after having had their coffee and *farinha*,) loaded with calabashes or gourds of *good* water, billhooks, axes, chain, instruments, flags, and their day's provisions. If it is a Sunday

morning, no work is done, and I allow myself a little laziness ; if not, it is necessary to "shake off dull sloth and early rise," and the exertion well repays one after the first plunge into the chilly mist ; but before going out I take a peep outside between the leaves of my interlaced palm-leaf walls, and then I shall see two or three, or maybe a dozen, *perdizes* or fat partridges, outside the fence of the hut, picking up the grains of corn dropped by the mule. I do not shoot them flying, but very much after the system of *Punch's* Frenchman, who waited until "she stop de run." It is not a question of sport ; there is no time for it, but of a "square meal." Outside the fence (that was put up around the hut to keep off the mule, who has a partiality for eating up my roof) there is the old grey with his head well over the rails in a state of quietude and somnolence, with his long ears pendent ; but at the opening of my bamboo-framed door they rise up perpendicular with a jerk, his eyes open, his nostrils dilate, and he utters his mulish neigh, as much as to say, "Come, hurry up with that corn ; I am tired of waiting."

The grass is frosted with dewy particles of moisture as I run down the hill for a plunge in the crystal waters of the grottos of the stream in the water-worn cavities of the clay slate rock gulleys of the hollow. On returning, my boy Adão prepares the welcome half-pint of coffee, the mule is saddled and then ensues a most enjoyable ride in the morning, when the sun is yet low, and great flakes of mist here and there hang over the valleys and woodlands, and long slanting shadows are thrown athwart the picture of rolling green hills, the varied tints of the trap-rock hill, the deep dark-green valleys, and the blue outlines of distant elevations ; the birds carol and sing and twitter, the vegetation is jewelled with dew, the air is fresh and cold and damp, the dew hangs to one's beard in little pearls, one's hands and nose are cold and wet ; how

sweet is the morning smoke ! But it is only for a short time, for as the sun mounts in the heavens the air clears, the coolness and moisture disappear, and the air is warm and hot. After a ride of two or four or six miles, the lowlands and their hot steamy atmosphere are reached, the mule is hobbled, the saddle taken off, and he is left to graze until Adão comes to fetch him. Entering the woods by the picadas, it becomes a scramble along the yet uncleared cuttings, at the end of which the men are working, perhaps one or two loafing against a tree, with a thorn, often imaginary, in the foot, or rolling a cigarette as an excuse for idleness. Now commences the long monotonous day's work with theodolite, level, and chain ; wet and clammy with perspiration, worried by insects, regardless of strange or beautiful flowers or plants, and parched with thirst (for we cannot always carry water with us). About 9 a.m., or whenever we can meet a stream of good water, a breakfast is despatched—a cold *perdiz*, or dried beef and *farinha*, and a good drink of water and a cup of coffee prepared over a fire, a quarter of an hour's lounge, and then work on until sunset, crossing many a rivulet, which we bridge when we can by felling a tree, so that the trunk may form a *pinguella*. The men run across easily with their bare feet, and keep an excellent balance, but, to their amusement, I prefer to go across straddle-legs fashion, rather than risk a plunge into the water and ooze below. If the water is fresh and clear and running, how enjoyable it is ! better than the finest wine (that is, on these occasions). Sometimes the slopes of the hills extend to the river, in rough boulder-strewn declivities, elbowing the line on to the slimy river-banks, or necessitating a big cut or tunnel for the railway. On the other side is often a long green marsh that extends for miles by the river-side, and where a few Burity palms stand out in graceful prominence, where the evapora-

tion is seen rising in quivering rays of heat ; on we go through the tall rank grass and black wet fetid soil to the dark shady woods again, to remorselessly cut down grand trees and small trees, beautiful palms, thick vines, and underwood. It seems a never-ending task, for the progress is so slow through the miles and miles of woods.

For a botanist or an entomologist the surroundings would present an ever-changing study, the curious leaves, flowers, fungi, ferns ; the foul strange pungent or fragrant odours ; the interlacing and varied vines ; the brilliant and curious beetles, moths, and butterflies and dragonflies, make one feel a desire to devote a life to their study. The air is close and hot, and generates a feeling of great weariness, and yet the men must be animated by word, gesture, and example, and awakened from their languor, and with the *matuto* a little pleasantry goes a long way, and, taken all in all, they are good fellows when they are understood, and do a heavy patient day's work from dewy morn to stewy eve, a good twelve hours' labour. At last comes the welcome hour when the instruments are put in their cases and the men shoulder the straps ; some of the tools are stowed in the bush ; the mule has been brought, or I walk home to my comfortable ranch. Another bath, dinner, and a well-earned lounge and a pipe in a hammock before the evening's work commences. The work is hard and laborious, but it gets through the time and solitude that otherwise would be unbearable, for with absolutely nothing to read, except when on rare occasions an old newspaper or a magazine is forwarded throughout the length of the survey, the de'il would otherwise provide his proverbial mischief.

The supply of provisions was a source of worry and annoyance. It was often necessary to purchase more than was required, for if the exact amount of their value had not

been sent, the change had to be taken out in kind, owing to the great scarcity of money or change amongst the inhabitants. Only by sending to the village of Bagri, forty miles away, could change be obtained for 100 milreis (10*l.*) ; it was necessary to send in another direction twenty miles for dried beef, coffee, sugar, *cachaca* ; sixteen miles in another for beans and *toucinho*, and fifteen in another for *farinha* and rice, and then often the messenger fails to find it.⁶

The nearest neighbour was four miles, and the next nine miles away, all being small stock-raisers and *roceiros*.⁷ There is no absolute destitution (which is practically impossible), but all the people are very poor, and with difficulty obtain sufficient means to acquire such necessities as their lands do not produce. The land is so happily provided with deep moist woodland valleys and streams that, no matter how dry the season may be, pasture can always be found, and agriculture flourishes. The cause of poverty is with the people themselves, for generations of lives have passed away without any stimulus to regular work, and, as all produce the same productions, they know that if the demands of the little local markets are exceeded the prices become unremunerative. If the season has been a bad one, those that fortunately have any surplus to dispose of are compensated by high prices ; if a good one, they lay up stores for the ensuing season of beans,

⁶ The following are the prices I paid :—

Salted pork fat (<i>toucinho</i>)	11"000	per arroba of 32 lbs.
Dried beef (<i>carne secca</i>)	5"000	" "
Beans (<i>feijões</i>)	4"000	" alqueire ($\frac{7}{8}$ bushel).
Farinha de mandioca	4"000	" "
Maize	2"000	" "
Rice	6"000	" "
Sugar (coarse brown)	7"500	" arroba of 32 lbs.
Coffee (green)	10"000	" "
Fowls, 0'400 each. Eggs, 6 for 40 reis, or 6 a penny.		

⁷ *Roceiro*, the owner of a clearing or patch of cultivated land of general produce.

maize, *farinha*, &c., but receive little recompense for their surplus when every one is in the same condition, and does not require to buy or barter. A railway would be a great benefit to them, but they could not (unless immigration set in,) pay for its working expenses by their collective produce. They are as a general rule, quiet harmless people, hospitable to any stranger, who is welcome to such rude fare and accommodation as their poor homes can supply. They are kind to their families, especially the old people, but the children grow up wild spoiled and without any good moral precepts. The boys follow the example of their fathers, and the girls that of their mothers, and so generation after generation passes away without acquiring new ideas of progress, and one hears everywhere the invariable reply to any suggested innovation or improvement, "*Não estamos acostumados*" (We are not accustomed).

I often had visitors at my ranchos, who generally brought me some trifle—fruit, vegetables, eggs or fowls, or a little game. A long chat ensues, that I well know is only the preliminary to the request they have come about, either a loan of a few milreis for the inevitable sick person at home, or for some medicine. It is in vain that I tell them I am not a *medico*, and have not a stock of remedies. Am I not a *doutor*?^s and are not *medicos*, *doutors*? they ask, and infer, consequently, that all *doutors* must be *medicos*. On one occasion one man was so importunate for a remedy for his sick wife that I gave him a couple of Cockle's pills to get rid of him. Some days afterwards I met him, and inquired if his wife was better, and whether she had reaped any benefit from the pills. "Well, no, not exactly, but they are excellent emetics?" "How emetics?"

^s In Brazil the national engineers have to obtain a degree of B.A., and are by courtesy addressed as *Senhor Doutor*.

"She says they are the most awful things she had ever eaten, and it required several days to get rid of the taste, and although she was violently sick after masticating them, she yet believes they did not do her much good." That man never troubled me again for medicine. It was a providential dispensation that a medicine-chest did not form part of my baggage, for I believe I should have killed a lot of people, as they would surely have swallowed lotions and have applied externally a black draught.

CHAPTER X.

DOWN THE VALLEY OF THE RIO S. FRANCISCO TO MY
LAST SECTION.

Departure—Sacco Grande and its inmates—Curious views of religious morality—Fever again—We lose our way—A horrible night out in the campos—A camp in a *roça*—A colleague's hard times—A jovial couple of invalids—The land of the river valley—Cirga—Rio de Janeiro and its green water—A comrade's rancho—Howling monkeys—The new section—Cattle-farmers and their homes—The Rio Tapera—Shooting fish—Partridges—Donna Chiquinha—Difficulties of travelling—Long delay of arrival of bullock-waggon—Health re-established.



A stock-raiser.

ON the 25th of June, 1874, I packed up and left this section. I had surveyed altogether about thirty-one miles of railway, fourteen of which were an alternative line over the *taboleiros*, but the other part was in forest. It appears to be a long time for such an extent, and so it is, but I must congratulate myself that it was done and I yet live. I should be very, very sorry to have to repeat it, unless tired of life. Long as the time was, I can conscientiously say that no man could have done it quicker under

the circumstances of climate, want of men, and the weary

miles of endless tangled forest, and often rugged precipitous sidelong ground.

Only one *camarada*, my boy Adão, elected to accompany me, for all my old followers had long since left invalided, and the last lot of men were more scared with the *mais para baixo* districts than even the present one, and it required great persuasion and coaxing to induce the owner of a bullock-cart and team to contract to take my baggage down the valley. He will make a long détour over the high table-lands, so as to avoid the deep valleys and bridgeless streams of the river-side districts. At last, however, everything was packed, and the long train of eighteen bullocks got under way, accompanied by the alternately shrill squealing and deep groaning of the ungreased axles that sound loud and startling in these quiet solitudes.

A twenty-mile ride to our put-up for the night, over *taboleiros* of campos vegetation and thin *cerrado*, here and there dipping into wide shallow hollows, where the *cerrados* are thicker and denser with thickets of forest, or where meandering streams lined with *Burity* palms, spread out into green marshes; an ever-changing scenery, wild and practically uninhabited. The track was a rarely used bridle-path, and on the hard ground and scanty grass tufts of the summits of the more elevated hills it was difficult to distinguish. Not a human being did we meet or a habitation pass until we had covered twenty miles, that brought us to a small isolated farm known as Sacco Grande, situated at the end of a long wide depression that extends up from the river, shrouded in woods, and surrounded by the slopes of the *taboleiros*, from which it has evidently been denuded.

The accompanying sketch of Sacco Grande shows a good example of the ordinary type of a *Sertanejos* home in these districts. A few mongrel curs salute us with furious barks and yelps, the sounds of which fetch out the respectable pro-

prietor, Senhor Rozinho, whom I had already once seen at my last rancho. After repeated calls to the dogs to "*Calla boca cachorro!*" "*Sahe cachorro!*" "*Cachorro do diabo!*" he flings a few missiles at them, expressing his opinion that they are the "diaboest" of *cachorros* he knows of, as they slink off with yelps and tails well stowed away. He inquires after my welfare. "How are you, Senhor Rozinho, and your illustrious family?" "I am *bom*, and they are all *boa*, graças a *Deos*, and to the *Sanctissima Virgem*." In a front room there were two travellers, simple countrymen, and the illus-



The retiro Sacco Grande, a Sertão farm.

trious family of brown and yellow faces in a back room, peeping between the interstices of the poles of the walls, or through the crack of the door, whispering and giggling at the sight of the mysterious *cstrangeiro*.

"Well, Senhor Rozinho, how is the *roça*? Has last month's rain done any harm?" I inquire.

"Ah, *meo Deos*! the *cheias* (floods) destroyed a good deal of the crops, but" (taking off his hat) "it was a punishment sent to me by *Deos* for my sins."

"What have you been doing then? Selling diseased cattle for sound ones?"

"Oh, no ; it is our *peccados* (sins) that we have to suffer for."

"What do you consider to be *peccados*?"

"Not to *rezar* (pray) at the proper times ; not to give *esmolas* (alms) when they are asked for in the name of *Deos* ; not to attend mass ; not to have one's children baptized, &c."

"Then suppose a case, that if you could induce any one to buy as a sound animal a bullock that you had reason to believe was likely to die soon, would not that be a *peccado*?"

"Certainly not. That would be a *bom negocio* (a good business)."

"How much land have you?"

"I do not know."

"You know its limits?"

"Oh, yes ; that my neighbours have settled with me."

"How long have you lived here?"

"All my life."

"How did you acquire this land?"

"My father left me a part, and my wife brought me the other."

"Where did they get it from?"

"I have not the slightest idea. It is not my business ; my father died, and I inherited his lands."

"Well, suppose I, or any other stranger should come here and say, 'These lands are mine,' and produce documents to prove such rights, and require you to move, what would you do?"

Senhor Rozinho thought awhile, with pensive head-scratching.¹ At last he replied without emotion, "Shoot you."

"But that would be a *peccado*?"

"Not at all ; that would be simply justice to my rights, to my family, to my honour."

¹ It is a difficult operation for a matuto to cogitate upon a debatable point without scratching his head.

"*He verdade*" (that is true), replied the two strangers in chorus. It would not be a sin. No, simply a question of right and business, and *peccados* have no relation to these matters.

The foregoing conversation more or less actually occurred, and will serve to show how narrow are the limits of the matuto's religious ideas, confined simply to an observance of given forms and ceremonies that do not in the least degree influence his moral life. Yet how can it be wondered at when the priests are very often the most immoral beings of a village community—immoral in every sense of the word. Where are these poor people, then, to get better ideas from? It is a matter of amazement that they are so quiet and peaceable as they are when left undisturbed.²

The night came on apace, and with it the chill night air. Some logs were brought into the room, and a fire was started, filling the space with pungent smoke; but the cold air entered through the open woodwork of the walls, and made the glow and heat welcome. At 8 p.m. a mess of beans and *farinha* was brought, to which I added a little of Liebig's Extract and Worcester Sauce. Mine host, who had curiously watched my proceedings, took up the pot of extract and handled a spoonful.

² Several years afterwards I happened to be in Minas Geraes with a man who held a concession for the sole mining rights over a large district, and especially over a particular river. We were staying at a large fazenda, the owner of which was educated and wealthy. My companion informed him that he would probably soon commence operations in the river. "Not without my consent," said the *fazendeiro*, "for the river is mine where it traverses my estate." "Very likely, but my concession from the Government entitles me to work on the river without asking any one's permission." "Very likely also, but for every labourer you bring I will bring a *camarada* armed with a *bacamarte* (blunderbuss). But you go to work with your company, and I daresay we shall be able to come to an understanding; only do not attempt to do any work without my consent." My companion a year or two afterwards was assassinated in that district in a mysterious manner.

"Is it good?" he inquired.

"Yes, very."

Before I could prevent him, he put into his mouth a spoonful. The result was somewhat like the emotion and action of a bad sailor who has made a manful effort to partake of dinner the first day at sea. Poor Rozinho was a sadder, if wiser, man. Even his two country visitors were heartless enough to laugh till the tears poured down their grimy faces.

We made a fairly early start the next morning, after recompensing mine host for his hospitality; he made a weak protest at first, but finally pocketed a few milreis. As we rode along I began to experience several ominous chills down the spine, although the sun was then high and hot. I was directed to proceed to Gammeleira, a small farm about half-way on my road, as the tracks were legible and clear up to that point, and then to inquire again; but, in any case, to accompany the *beira do rio* (river-side). The valley was there two or three miles wide on each side of the river, a series of hills and valleys washed out from the higher plateaus, whose slopes looked like ranges of hills accompanying the course of the river. Later on, the first hut on W——'s section, by the Corrego de Basilio, was passed; and further on, a stream, Riberão do Boi, 150 feet wide, was successfully crossed.

Here we met two horsemen; we saluted and passed on. Adão rode up to me half an hour afterwards, and informed me that they were the owners of Gammeleira, and that we should find no one at home there. I felt inclined to punish him for his stupidity in not telling me at the time, for I began to experience great nausea, headache, and giddiness, and repeated chills and extreme lassitude; but it was of no use giving in to the miserable feelings, and so, pushing on, we reached Gammeleira only to find it untenanted. Several roads branched away; we took the most beaten, leading to the river, passed

another of W——'s huts at São Antonio, where again we found paths leading in various directions ; we followed one parallel to the river until we met the high banks of a stream, where, finding it impossible to pass the animals, we rode up the borders of the woods of the valley until we found a crossing; further on another stream obstructed our route, whose margins were lined with impenetrable woods. It was then getting dark, and I felt so horribly unwell—trembling with ague—that I dismounted and sent Adão in search of a road or a habitation; he returned in an hour, and could find no indication of either. It was now quite dark, and there was no remedy but to camp out, hobble the animals and turn them loose, clear away the grass and light a big fire. I gave Adão a tin of boiled beef for his dinner, but he made a wry face and said, "*Deos me livre*," thinking possibly of Rozinho's experiences of the extract of meat the previous night. That was not an enjoyable evening ; I was too ill to care for any dinner, and a steady fall of rain did not tend to diminish the discomforts of our shelterless position. It is really not nice, lying rolled up in a mackintosh on one's saddle, in a pouring rain, trembling with fever and ague, and surrounded by a pitchy darkness out in a shelterless campos on a cold night. The fire, however, sparkled and hissed as the rain spluttered on the hot embers, and gave a little warmth and light, but also made the wet grass and soppy ground appear even more palpably uncomfortable. Snakes or jaguars might possibly frequent these deserted districts ; but I thought that a jaguar would be welcome to make an end of the "jollity," if he did not take too many bites, but be sharp about it. I have never experienced the ills of sea-sickness, but I have seen unfortunates in the stage of "do what you like, throw me overboard" sort of feeling. Well, I realized it, that long weary night in the campos.

All things have an end, however, for at dawn I heard a

cock crow. What a joyful sound ; it seemed quite English and human. We then discovered a *roça* on the opposite side of a wood, on whose borders we had camped, not many hundred yards away. Stiff and cramped, with limbs aching, cold and wet, we worked our way round to the *roça*, where we found a hut and a family, and, oh, be joyful ! just making a welcome pot of hot coffee. It was not a lovely scene that Watteau would delight in. Clouds of damp mist drifted through the trees, the leaves dripped with wet ; my good Samaritans were only clad in cotton shirt and trousers, and the women in thin cotton dresses ; they shivered with blanched faces in the thin raw cold damp air of the early morning. The hut was open at one end, and showed the blackened interior, whence the smoke of the fire inside emerged in long winding folds of blue vapour ; bullock-hides on the bare ground and thin red cotton coverlets were their only provision for camping out, for these people, like many of the inhabitants, had their plot of cultivation several miles away from their home. They had provisionally taken up their abode here to get in their crops. I felt much better for the coffee, and walked on, leading the mule, to try and get a circulation into my aching limbs, one of the *roceiros* accompanying us as a guide.

The *roça* people explained to me that the *estrada da beira do rio* (the river-side road) is the road that follows the valley, in distinction to the road that passes over the *taboleiros*, and its name did not necessarily mean that it accompanied the actual banks of the river, as I had inferred. When we eventually reached the track at the foot of the slopes of the *taboleiros* it was quite four miles away from the river, and hardly discernible in the grass, as it is very little used. Some five miles further on we reached Martinhos, the name of the district where W—— had pitched his camp of huts. It was

a welcome sight and a grateful one after the last night's experiences. W—— was out at work. Alfonzo, his Italian servant, informed me it was his master's day on duty, for, for six long months he had alternately spent one day in his rancho with fever and the next out in the field at work. He had been to Curvello in the height of the hot season, to try to rid himself of the fever by change of climate, and derived considerable benefit by it, but on his return to the river his illness again reappeared in the regular accessions of tertiary ague.

A hot bath and a good breakfast, neatly served up by the deft hands of Alfonzo, made me feel a better Christian, and enjoy the quiet hours in the comfortable rancho waiting the return of W—— in perusing his stores of periodicals and books. In the afternoon he came in with all his usual vigour, as full of go and energy as though nothing was wrong with him, but he showed the effects of the fever in his appearance and in considerable constitutional derangements. It was more than a twelvemonth since we had seen each other, and we each noted the changes that the time and rough life had wrought in our appearance. When last together we were strong and robust, bronzed dark-brown with sun and health, and full of anticipation of the charms of the life we hoped to enjoy, and eager for work and brimful of energy. Now we were pale, sallow and thin, debilitated with the climate, but just as ready for work, and resolved to make the best of everything. These occasional meetings with the different members of the expedition are always pleasant, and serve as a moral "pick-me-up" after a lonesome existence, for we were not long enough together to squabble, and each one was pleasant and amiable. How our tongues wagged into the late hours of night ! what a number of times was said positively the last "Good-night, old fellow," but one just then remembers another "good thing"

that reminds the other also of a good joke, until one has all the talk to himself. I remembered the last confused words were about the Rajah of Puttiali and some incident in Umballa, mixed up with Alfonzo and the brown mule.

The next morning I intended to leave early, but Adão's horse had disappeared, and I must wait, although my old grey was ready at the ranch where he received his feed of corn the previous evening. W—— went off to his work for an hour or two, to start his men for the day, and said he would be back soon to have his shakes.

"Do you think you will have them to-day? You look better this morning," I observe.

"Think!" he said. "My dear boy, there is no thinking required. You can regulate the days of the week and the time of your watch by them. Good-bye, if I don't see you again when I return."

The missing horse did not turn up, but ten o'clock did, and with it W—— hurried in.

"Now, Alfonzo, you *sutva*, hurry up with that breakfast, or I shall not have time for any."

I had no alternative but to join him at a second breakfast. At the conclusion he hastily arose, saying,—

"Time's up; here they are. Bed ready, Alfonzo? Get my pipe."

Shortly afterwards he was shaking and trembling with the cold rigours, and his pipe waggled violently as he tried to hold it with his chattering teeth. I remained to help him through the six hours, but after he had been duly frozen, and before he had commenced to thaw, I had to request Alfonzo to get my bed ready also, for my turn followed. Truly we were a jovial couple, and tried to be as "jolly" as the circumstances would admit, but the splitting headaches of the hot stage are not conducive to hilarity.

Nervousness greatly affects this complaint ; genial society is extremely beneficial, and the natives assert that a sudden shock is often an excellent cure, and even go to the extent of discharging a gun unexpectedly under the bed of a patient as a remedy. The disease is undoubtedly fostered by a low anæmic condition of the body, produced by continual loss of strength in excessive exercise in a hot humid atmosphere, or by dyspepsia generated by indolent lives, or by insufficient change of diet.



A stream in the Campos of the valley of the upper Rio São Francisco.

The next morning the animals both turned up all right, and after a dose of quinine that will, in vulgar parlance, "take off the top of my head," we each go our ways. Away from the borders of the river the country looks anything but suggestive of malaria ; for two hours we skirted the foot of the *taboleiros*; the road terribly rough, at best a mere path, climbs steep spurs of the highlands and descends into deep vales, down break-neck ravines and crosses numerous streams. The land of the campos character, irregularly dotted with stunted trees, often extends to the verge of the many streams, where

the water is wonderfully clear and pellucid (so different to the yellow muddy streams of the Parãopeba districts), and often flows over huge boulder-strewn beds between banks of rock, dripping with moisture and covered with ferns and mosses, their margins are fringed with tall trees that meet overhead and form long avenues of delicate green verdure, through which the sunlight glints in rays of bright light; on the boughs, where often a bronze-green king-fisher sits watching for his prey in the dark shady pool below, hang suspended



The valley of the upper Rio São Francisco.

the nests of *japim*-birds from the ends of long trailing vines amidst brilliant bromelias and other parasitic plants.

At the end of two hours' riding, D——'s first rancho on his section was passed at Sumidá; then another hour of patient jolt-jolt brought us to the summit of a long hill, from whence we perceived the river winding away into the far distance, always bordered on each bank by belts of forest. Rising right and left from the long reaches of light-green marshes at the rear of the trees of the banks, in gentle

undulations, dotted with shrubs and dwarf trees and white termite mounds of clay, the valley extends to the foot of the higher table-lands from which this big hollow and its feeders have been scooped out. Were it not for the annual burnings that consume the grasses of hundreds and thousands of square miles of area, it would be a scene of primitive nature, for these rolling hills have never been planted, those miles of forests by the river and up the streams have never been disturbed by man—not a curling smoke, or thatched roof, or a fence in the wide extensive view indicates man's presence; yet there is not the weird stillness and quietness of the forest, for the wind blows briskly on this hill-top, the leaves of a *Pau Terra* hard by rustle in the breeze, the grasses murmur a melody as the breeze sweeps over the far-reaching downs; a *tesoura*³ bird flies into the air from a bush with a sudden and erratic swoop after an insect, making its two long tail-feathers open and shut like a pair of scissors; the *cigarras* (*cicadas*) are heard in all directions in shrill whistles or vibrating whirrs, *anus*, *alma de gatos*, and *gaviões* utter their cat-like screams, *serenhemas* make the valley resound with their high-pitched rising and falling gobbling notes; a *perdiz* rises up with a whirr and scuds away; black *urubus* are far up in the blue ether floating lazily and describing grand circles in their majestic flight, watching with keen sight and smell for carrion; the white-flecked clouds drift by, casting long gliding shadows over the grand expanse before us. It does not look like a valley of the shadow of death, yet, there below us, those lines of light-green behind the forest-borders of the river are the poisoners of the atmosphere, the haunt of the malaria.

A few miles further on Cirga was reached, and it being Sunday, D—— was “at home” to callers, but he also was another victim to the prevailing fevers. He told me the same story—

³ *Milvulus forficatus*.

men falling sick, leaving the work, some dying, he himself constantly ill ; and yet the work went on, slowly truly, but yet perseveringly. Close by the rancho, in lower ground, on the borders of a far-reaching riverside swamp, through which a stream meanders, bordered by the always to be admired beautiful Burity palms, was the only farm of the neighbourhood. It was a foolish site, for it might easily have been built on higher ground, all the tenants were suffering from intermittent fever ; and the owner intended to abandon his land as untenable, and return to Curvello, from whence he came. This was not a very happy Sunday, for we were both very ill, and my big dose of quinine created great nausea and a noise in my head like the din of a huge factory ; still Bass's inspiring beverage could not be refused, and there was a lot to talk about and relate the latest "good things," and make ourselves as happy as could be expected under the circumstances.

Next morning D—— accompanied me on my way to C——, the next section. An easy ride over fairly level ground for four miles brought us to the mouth of the Rio de Janeiro, a river of clear water 120 feet wide, but of an extraordinary tint, for it is green as shallow sea-water ; we passed in a canoe, and swam the animals across. Several species of fish were visible in the transparent water, chiefly *curumatões*, and as they were near the surface I succeeded in shooting one with my revolver. It was about two feet long, of a pale silvery colour, and somewhat resembling the form of a salmon ; they are particularly delicately-flavoured fish. The view from the embouchure of this river up the winding reaches of the wooded banks of the São Francisco was extremely pretty, an ever-varying vegetation where no tree or bush is similar in form or species to its neighbour ; many of the overhanging bushes were covered with dense masses of brilliant convolvuli. The

division of the waters of the Rios de Janeiro and São Francisco was sharply defined, one a bright green tint, the other a dirty dark-brown.

After passing the stream the track follows the margin of a marsh for four miles, at the end of which on a hill-side, was situated the camp of C——, where we discovered that gentleman seated on a bench outside his hut industriously occupied in mending his boots. He was then alone, for his old comrade Peter had left the service on the conclusion of their last section, and had returned to Rio de Janeiro. C—— and his men had had their shares of the fevers, but not so much as on the upper sections. He had then a capital set of strong sinewy men, the best I had seen on the service ; the greater part of them were inhabitants of the Rio Abaeté on the opposite side of the river. His rancho was quite an establishment, containing drawing-office, dining-room, bedroom, bath-room, and pantry. It sounds very nice, but the reality would show only a rough hut, divided in the interior by partitions of sticks placed on end close together. The floor was of course the bare ground ; and the furniture consisted of two drawing-boards on trestles, three folding tall stools, a bed of sticks covered with grass and rugs, and on hanging shelves in the corners of the hut a heterogeneous collection of instruments, cases, bags and cases of provisions, bottles, hams, saddles and harness, clothes, rolls of paper, spurs, guns and knives, axes, billhooks, dead birds, coils of tobacco and rolls of *toucinho*, demijohns of *cachaça*, ranging-rods and chains, sketch-books and field-books, &c.

Despite our "seediness" and sallow complexions we formed a merry party, and the time passed gaily. About sunset I was startled by hearing a loud deep hoarse roaring in the woods of the river-side close to the hut, and learned that it came from *guaribas* or howling monkeys; the noise was a deep,

hoarse guttural roar, but we were too lazy then to look for the animals.

The next morning D—— returned to his work, and C—— rode on with me, to my new and last section, on his way to headquarters at Pirapora to settle some questions. The air was delightfully cool and fresh, and quite braced us up as we cantered over the grassy hills, but innumerable streams intersected our route, some rocky and picturesque with cascades and ferns and flowers, others shallow and muddy, and yet my cart will probably have to pass them by digging away an easy ramp in the banks. The soil throughout is clay, topped with an upper strata of ferruginous gravel (the stones rounded by attrition), and often huge masses of primitive rocks weather-worn and covered with mosses and lichen scattered the surface of the ground, that is chiefly covered with the stunted gnarled trees and low scrub of the cerrados.

After travelling three hours we stopped at the first habitation, a *vaqueiro's*, or herdsman's house, known as Sacco. The proprietor was a smart good-looking youth of about twenty-one years of age, dressed entirely of tanned deer-skin leather, coat, vest, tightly-fitting trowsers, hat and boots, all of similar material. He owned about eight miles of river frontage by several miles deep, at least a hundred square miles. He possessed a few hundred head of cattle, and cultivated a small plot of land. His house was a little structure of poles, thatched with grass, and surrounded by the trees of the cerrados. A corner of it was enclosed by walls of adobe, and formed his only bedroom. His wife, a light mulatto, who brought us coffee and milk and *rapadura*, was a very pretty young woman, exceptionally so in these districts of unlovely people. Both of these young people were very kind, and unsophisticated and pleasing in their manners.

Continuing our journey for two miles over a flat marshy

plain that is all covered with water when the river is flooded, we scrambled down the steep banks of the Corrego da Carambola, where we startled some large *patos de mato* (a species of Muscovy duck), that flew heavily away into the adjoining woods. Then succeeded a long gently rising hill covered with cerrado; from its summit appeared a long view of the valley, now everywhere dotted with trees and bush. Four miles from Sacco we crossed the charming Rio Tapera, a shallow stream of clear water about forty feet wide, flowing over a bed of pebbles rich in the diamond formation; in fact, this river is reported to yield both diamonds and gold, both having been found in its bed, that has never been actually worked. It is a lovely river, its lofty banks are covered with hanging vines and creepers and flowering shrubs, and giant trees spread their branches and foliage overhead in verdant arches of shade alternated with patches of blue sky, and the beams of sunlight and soft shadows on the murmuring waters created most lovely effects.

Another four miles over cerrado hills and patches of flat marshy meadows and two small streams, brought us to another house of a cattle-breeder, where, hearing there were no more habitations for many miles beyond, we determined to stay the night. The proprietor, a meagre leather-clad man, with much ceremony invited us to dismount, enter and take a seat. The inevitable coffee forthwith appeared, brought by his wife, another rather pretty young woman, not at all shy; on the contrary, she joined the conversation, and chatted in a frank sensible unaffected manner. Mine host cordially tendered what accommodation he could offer, and duly was heard the screech of the fowl being killed for dinner.

The house was like that of Sacco; a corner walled off by

mud walls, the rest covered only by the roof of grass, and the sides all open to the chilly night air and heavy dew. Saddles, hides, harness, raw-hide ropes, household utensils, a rough table and benches filled up the interior. A hide was laid upon the ground, and a wide bag, stuffed with corn-shucks, was placed upon it ; white linen pillows with edges of native lace and our ponchos and rugs, constituted our one incongruous bed. A basin of hot water, and *starched* and ironed lace-edged towels, were brought the last thing. The towels would not act as towels should, but left a deposit of starch upon our faces that made us feel as though we had been enamelled under the hands of a Madame Vestris, and the skin to feel as though it would crack if we elongated our faces. The night was very chilly and cold like a raw wet English winter morning.

The next morning our host apologized for his want of better accommodation, and expressed his great pleasure at receiving us, and at first scorned to accept any remuneration, but eventually he swallowed his scruples and pride and pocketed a few milreis although he is the owner of considerable herds of cattle and hundreds of square miles of land. It would prove a very interesting subject to investigate the title-deeds of these lands : that would probably prove to be nothing better than original possession and occupancy of nobody's lands.

My companion continued his journey, and I returned* to the Rio Tapera, where I found Senhor Candido, of Sacco, awaiting me to select a site for my camp, and contract for the erection of two huts. I found a charming situation, where a campos hill sloped to the edge of the banks. On the opposite banks a rich forest of grand vegetation made a pleasing contrast to the green grass and the clear flowing stream. A bargain was made for erecting two huts, 24 ft. by 18 ft., for

fifty-five milreis (about 5*l.* 10*s.*). Afterwards returned to C——'s rancho.

In the late afternoon, during a stroll down to the river-banks, several fish of from one to three feet long, mostly *dourados*, were perceptible in the semi-clear water. Not then possessing a gun, I had become by use, fairly proficient in revolver-shooting, and succeeded in bagging a fine *dourado* (a species of golden salmon, the king of Brazilian fish). My boy Adão retrieved it for me.

Guaribas were again howling, and I worked my way towards them, and eventually found and saw them in the upper branches of a small *jatoba* tree. There were eight, large and small. It was too dark to distinguish them clearly, and too high up for a revolver shot. Their flesh is reported to be excellent, and delicate in flavour.

I congratulated myself that the day had passed without a return of fever, and I had not another attack during the time I remained in the expedition.

The next few days were spent in reconnoitring my section, and a few more with my colleagues, pending the arrival of my carts with baggage, now already a week behind time, and I had already sent off two men to the *taboleiros* to find what had become of them. During these days of waiting and regaining health and strength, I accompanied C—— on several shooting expeditions, (for he was an inveterate sportsman, and kept his table well supplied with game, chiefly *perdizes* (partridges), of which there were great quantities on the hill-sides,) or we went on to the high river-banks to shoot fish, rather a novel mode of fishing perhaps, but certainly most effective. The large and numerous fish were distinctly visible in the water, and when they rose near the surface, with a little practice to allow for refraction, we were fairly successful with shot-gun and revolver. On one occa-

sion we brought down a pair of *guaribas* with a young one. It was really pitiable to witness the almost human contortions of their death-throes, and their deep hoarse guttural groans.



Guariba or Barbado (Howling monkey).

The accompanying sketch will give an idea of their appearance and physiognomy, somewhat like one of *Punch's* typical Fenians. The male measured thirty-two inches in length; the body is covered with long black hair of a fine glossy texture, and the face is surrounded by a mane of

similar hair. The animal belongs to the genus *Mycetes* *Beelzebub*. The awful roars they make at sunrise, sunset, and sometimes at night, and their diabolical appearance, are either sufficient reasons for the Satanic title. The female is smaller and of a slighter build, and the hair, instead of being black, is a light dun colour. The little one was unhurt, and clung desperately to its dead mother, and tried to bite viciously, but we carefully secured it, and carried it away in triumph. The papa monkey was handed over to the cook, and he eventually appeared on the table much like a roasted baby. We attacked him, however, and found his flesh very palatable indeed, somewhat like roasted hare ; but his appearance was so suggestive of cannibalism that we failed to overcome our qualms, and had to say "I pass," and leave him to the less fastidious *camaradas*. The little one was fed upon milk and *farinha*. She was exceedingly slow in her movements and extremely cunning; and would simulate an apparent indifference until she saw an opportunity to rush with a vicious show of teeth at the hands that fed her, for which she received a slap. She would then start back in a crouching attitude, and with flashing eyes purse up her mouth and emit a deep roar that sounded strange from such a small animal. We christened her Donna Chiquinha, and she remained with me and accompanied me on my further travels.

The men I had sent after the cart now returned, and told me that they had found the cart far away in the *geraes*. The carter had missed the road, and four bullocks had disappeared, either strayed or stolen, probably the latter. He was in such despair that he was intending to abandon the baggage out in the campos, return with the rest of his cattle and cart to his home, and then hunt for the lost ones, and it was only by dint of great persuasion, threats, and

promises that my men finally induced him to proceed with the cargo. Fortunately the road was then all down-hill, and fairly even. The next day I thankfully saw my goods duly delivered at my new camp by the Tapera, and, having thus lost so many days, I was only enabled to commence work on the new section on the 18th July, 1874, feeling much better for the rest and recreation enjoyed with my friends, all traces of fever had disappeared, and I felt re-invigorated, and ready again for work.

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CHAPTER XI.

SURVEY OF MY FOURTH SECTION AND TERMINATION OF
THE WORK AT PIRAPORA.

Description of the ground surveyed—A well-watered country—The Abâeté, and its diamonds and silver-lead mines—Diving for diamonds—The diamond formation—A snake adventure—The mule is bitten by a snake—A rough carriage-road—Abundance of game—A merry evening—Canoeing on the São Francisco—Landing at Itahypava—An abode of indolence—Headquarters at Pirapora—Our scattered camp—Comrades—Excessive heat and drought—The flat plains of Pirapora—The falls described—The village and its inhabitants—Abundance of fish—Baneful effects of fever—Greatest heat experienced in Brazil—Sunstroke—The fauna of Pirapora—A plague of snakes—The lethargy caused by sedentary occupations—Sunset on the falls and in the park of Pirapora—A too curious visitor punished—The devil not so bad as he is painted—Conclusion of the survey, and the return of many of the staff.



WORK was commenced at the upper, or south end of the section, amidst the grass and scrub of the cerrado vegetation, on the margins of a long but narrow stretch of swampy meadows. This marsh occupies a depression at the rear of the higher land of the forested banks of the river, in the manner common to the whole valley of the São Francisco.

It is thirty-four feet above the level of ordinary low water of the river, and six feet below the height reached by a great flood in the year 1865.

After skirting this marsh on the adjoining higher ground for about a mile, the lines of survey left its bright flowers, grasses, and gravelly soil, and entered the dark humid shades of the forest on the borders of the Corrego de Carambola, a winding tortuous stream that crossed our route. This jungle



Cutting a picada in the jungle of the Carambola.

is a dense tangled mass of vines, brambles, bushes, and trees, so knotted twisted matted and twined together, that it almost resembles a solid wall of vegetation, and although not more than 150 yards wide, three days were spent in hewing a passage through it.

Beyond the Carambola, the ground rises directly from the forested margins of the main river, and extends in gentle slopes to the highlands of the table-lands; it is comparatively open grass-land, interspersed here and there with scattered,

gnarled dwarf trees and shrubs, and by occasional outcrops of weather-worn primitive rocks. The spoor of deer, *capivaras*, and ostriches was frequently met with on the sandy-gravelly soil.

This spur of the highlands, about half a mile wide, gradually descends on its northern side to the extremity of another marsh, a long vista of verdant grass, bordered on one side by the dark forest of the river-banks, and on the other by the scattered trees of cerrados, and echoing to the screams and chatter of numerous aquatic birds, that resounded throughout its length. The birds were such as commonly frequent these marshes, namely *marcecas*¹ (a small duck), white herons, *soccós* (bitterns), *gallinhas d'agua* (coots, or water-hens), the great, ugly *jaburu-moleques* (storks), *lavandeiras* (a species of sand-piper), and *jaçanas* (jaçana screamers).

At the end of the marsh another spur from the table-lands extends to, and forms lofty precipitous banks on the river; it is much furrowed by watercourses, littered with great boulders of rock, and covered with fine forest-trees, whose mossy lichen-covered trunks and branches show several varieties of orchids. This woodland being comparatively free from underwood, its shaded groves are tenanted by cattle during the heat of the mid-day, and are consequently freely endowed with my old enemies, the *carrapatos*, not in such terrible quantities as in the pasture-lands of Mesquita on my first section, but still just enough to be more than provoking. Down many of the gullies of the watercourses are paths worn by the feet of *tapirs* and *capaviras*.

This high ground is followed by another stretch of marshes that end in the virgin forest of the Rio Tapera Grande. This forest is considerably above the level of floods, but the ground is so level, so boggy, and so thickly covered with

¹ *Anas autumnalis*.

decayed vegetation, that our feet sunk deeply into the soft black floor. In such a soil and climate the underwood, vines, and trees attained a rank luxuriance, mosquitos swarmed in clouds, and the foul gases arising from the fetid black morasses were only too perceptible; but after we had toiled through these noisome shades, and gained the banks of the Rio Tapera, a most charming scene appeared before us. *Blasé* as one becomes to the ordinary appearance of tropical verdure, he must indeed be soulless to gaze upon such a combination of charming effects without experiencing a thrill of delight at the wondrous beauty of the scene.

High overhead, above the pellucid waters of the stream, the great forest-trees of both banks mingle their delicate tracery of branch and foliage in long avenues of soft shade, here in masses of dark verdure, there in patches of light emerald, or with openings to the blue sky that sends shafts of bright sunshine upon the murmuring shadowed waters like plates of sparkling gold and silver. Great vines descend from the branches, some like ships' cables in straight lines, that gently sway to passing puffs of air; others hang in great festoons, some bare as a rope, and others, covered with leaves, flowers, and parasites. Palms, tree-ferns, and bamboos project their feathery foliage from the tops of the banks, and form the sides of this colonnade of greenwood. The red soil of the lofty banks is shrouded in masses of trailing convolvuli, passion-flowers, and by many varieties of ferns and arums. The solitude is profound, and enhanced, not disturbed, by the ripple-ripple of the water over its pebbly bed, by the splash of a fish, or by the swift flight of a bronze-green kingfisher, looking as it passes athwart a ray of sunlight like the gleam of an emerald.

Six hundred yards carried us through this pestiferous but lovely forest, out again to the bright sunshine of breezy

elevated campos, followed by another marsh that extends for nearly two miles, and terminates in another forest on the borders of the tortuous Corrego de Jatobá. Beyond this stream more campos-land stretches away to the Corrego dos Porcos, eight and a half miles from the commencement of the section.

After passing this stream, that, like every other in this district, is bordered by forest, we came on to more high and rugged ground, sloping precipitously to the edge of the river, densely wooded in the lower part, and cerrado-covered on the upper; this terminates in a wide thickly wooded valley, through which winds in an extraordinary manner the Corrego da Cambahúba, that was crossed by the first picada no less than six times, although its direction was parallel to the course of the main river.

After this difficulty had been surmounted by driving other lines through the woods, a half-mile of high level grass campos brought us to the lofty and wooded banks of rocks bordering the Cachoeira (rapids) das Broacas of the Rio São Francisco, where there is a powerful rush of waters down a slight incline freely studded with rocks, large and small, in whose crevices and pot-holes the gravel of the diamond formation abounds.

Beyond the Cachoeira the land rapidly falls away to another stretch of low-lying wide green marshy meadows, that extend to the wooded valley of the Corrego da Catinga. This stream gave me considerable trouble to avoid repeated crossings, for its course turned and twisted amidst the densest of jungle, where it is impossible to go a few yards without laborious cutting and hewing. After traversing this maze of woods and winding stream, we passed over some forested high ground, that forms high and precipitous bluffs on the riverside. The rich soil of this last part contained a few

roças and riverside huts, the only part of the actual borders of the river that was inhabited. It terminates at the Corrego da Bandeira, where I joined on to O——'s section.

This rough, but rather tedious sketch of the ground I trust will at least serve to convey an idea of the configuration of the land of the riverside of this section.

The whole length surveyed was $11\frac{1}{4}$ miles in extent, and occupied sixty-eight days to complete the survey and plans.

Six considerable streams were crossed, varying from twenty to sixty feet in width, besides numerous smaller rivulets and dry watercourses in the more rugged ground.

In appearance there is practically little difference in the main features of this section from those of the upper river, for in both cases there are the same long extents of wet morass and dark pools of rotting vegetation in the woods, the same occasional spurs of the table-lands that extend to the belts of forest that top the banks of the river. But in one point this part of the river is different, in showing an absence of the slime and mud peculiar to the banks and shoals of the upper section, and in this section not a man fell sick, and I succeeded in quite regaining my normal health. The absence of fevers was probably due to the fact that the season was near the end of the dry and cool weather, and the temperature at no time was excessive.

The thermometer ranged from 74° to 84° in the shade from ten to four in the day, and from 58° to 72° at night. The lower degrees of coolness rendered a log fire in the rancho pleasant and agreeable until the 15th August, when the nights became much warmer.

During the latter part of the survey another camp was constructed on the Corrego da Cambahúba, not so pleasant a situation as the very picturesque Tapera. It was pitched in a little glade surrounded by great forest-trees, and close

to the public riverside road, but days and days sometimes went by without seeing a passing stranger or a neighbour. Towards the end of my labours the weather became very dry and the temperature much higher; many of the smaller streams dried up, and even in the Cambahúba pools of stagnant water were met with only here and there. In both camps however I fared well, provisions were cheap and plentiful, fresh beef was obtained once a week by purchasing a young bullock for fifteen milreis (thirty shillings). There was no difficulty either in procuring men at one milreis per day, about three times the local price for day-labourers.

One evening a traveller arrived at my rancho and asked for hospitality for the night. In the course of conversation he told me he had been engaged for the past two years in searching for diamonds on the shores of the Rio Paracatu, near the town of that name, and was good enough to show me the proceeds of his labours.² He took from his trunk two small bags, and on opening them I saw inside of each about a quart of small stones, some were crystals, others were quite rounded; they varied in colour from a clear transparency to an almost opaque blackness. He informed me that one bag contained genuine diamonds; the other one, stones of a quality that he was not acquainted with; in both bags the stones were all small, very few being larger than a common pea, yet even so, their value must have been very considerable and should amply pay him for his industry. At no time had he employed more than six men. He was then proceeding to Rio de Janeiro to dispose of the gems, but if he could not get a fair price he intended to go to Paris. The

² This action did not imply any particular indication of confidence, but it speaks most tellingly of one of the best traits of these people, a trust of one another and a comparative absence of highway robbers even in a mining country.

man appeared to me an ordinary type of the Brazilian countryman.

The whole of this district, from the Rio Abâeté above stream, to Pirapora below, is a diamondiferous region. The rivers Abâeté, Borrachudo, Indaia, Somno, and many smaller streams are all diamondiferous; they intersect the great diamond region that extends in the direction of Bagagem in Minas Geraes, Villa Franca in São Paulo, to the Rio Tibagy in Parana. The Rio Abâeté, nearly in front of D——'s camp at Sirga, has produced some of the most celebrated diamonds of Brazil,³ besides rich mines of silver-lead in a tributary of it called Rio das Galenas, formerly worked by the Portuguese when Brazil was one of their colonies, but the great national mining operations appear to have ceased with the declaration of the Independence of the Empire.

In the Abâeté, such diamond workings as yet exist are continued in the rudest and simplest form. A few labourers, called *garimpos*, are occasionally employed to dive in the water of the river, and fill with small scoops, from the gravel of the bed, the pails and buckets that are lowered down from canoes by ropes; the prizes are few and rare, as could only be expected from such an uncouth system. Yet it must pay, otherwise it would not be continued in a country where cent.

³ Celebrated diamonds found in the Rio Abâeté:—One, weighing 138½ carats, was found in 1771 by three criminals, who delivered it to the Government, for which the finders were pardoned their crimes. Three other huge stones belonging to the crown of Portugal, one of which weighs 215 carats, and another an ounce troy, another 120 carats. (Dr. L. Feuchtwanger's "Treatise on Gems.")

Captain Burton mentions the Abâeté brilliant, found in 1791 by three criminals, who obtained their pardon as their only reward; he gives the weight of this diamond as 144 carats. This is probably the above first mentioned, although there is a slight difference in the weight and in the date of the finding.

per cent. per annum is not considered more than a fair profit. A diving dress ought to pay well in such a locality.

In the Rio Tapera, and on the shores and shoals and rocks of the Rio S. Francisco, in this district, the diamond formation is frequent,⁴ and any one once familiar with it, as with the alluvial gold formation of Minas, is rarely deceived.

On one saint's day, I went with my men to prospect for diamonds in the Tapera. After considerable labour, and discarding several very attractive-looking stones of beautiful colours and texture, one small diamond was eventually found. Unfortunately, these specimens, with many another curiosity, were, a year afterwards, lost in a shipwreck on a rapid in Goyaz.

Amongst the incidents that occurred during the work was a narrow escape that one of the men had from a snake on the banks of the Carambola. The picadã had been cut

⁴ The diamond formation (*formação diamante*) is the name given in Brazil to the various minerals that are found accompanying the diamond when it exists in the beds or shores of rivers. The names given to the appearance of the different stones and substances by the natives do not always indicate similar materials; for instance, a substance known as *esmêrim* or *esmêril* is always found at the bottom of a gold-washer's pan, mixed with the grains of gold, and is also seen in the sands of auriferous or diamondiferous sandbanks. It appears in the form of variously-shaped black crystalized grains, and may be either small pieces of tourmaline or pure iron, or strips of iron-stone, or tantalate, or titaniferous iron, or iron pyrites, or even platina, palladium, or iridium. The various other constituents of the formation are known as *cativo*, *figado da gullinha*, *fava*, *feijão*, *pingu d'agua*, *caboclo*, *ferragem*, *pedra da Sta. Anna*, *osso de cavallo*, *palha de arroz*, *agulha*, *casco de telha*, *ouro*, and the more general and comprehensive *cascalho*. The latter name represents a breccia, consisting of ferruginous clay, quartz pebbles, sand, and oxide of iron fragments. The former terms express particles of topaz, beryl, chrysoberyl, tourmaline, kyanite, amatose, spinelle, corundum, garnet, jasper, itacolumite, felspar, and gold. In other parts of Brazil, such as the Serra de S. Antonio, the source of the Rio Jequitinhonha and in the Serra do Mato da Corda, the diamonds are also found imbedded in the itacolumite rocks of those mountains. The richest formation is a hard conglomerate (*canga*), often found lying upon beds of marble.

already several days, and I was then traversing it with the level. On this occasion I happened to be standing on the top of the bank adjusting the instrument; all the men but one had crossed the stream by descending the trunk of a tree that had fallen down the bank, and had already reached the opposite side when one of them happening, fortunately, at the moment, to look back, as the last man was crossing over, perceived a huge poisonous *jararaca-assu* snake, coiled under the branches of the fallen tree, with head raised, and just about to strike at the bare legs of the man then walking down the log with his face turned in a direction opposite to that of the snake. The men seeing his danger, instantly called out to him, "Jump! jump! Martiliano, snake!" Martiliano had sufficient presence of mind not to hesitate a moment, and leaped into the water just as the reptile launched its venomous head. *Cruz! Ave Maria! O que cobraão mangangawa!*⁵ (What a monstrous snake). The *bicho* did not attempt to get away, and was soon after despatched by blows of some long sticks hastily cut for the purpose. It was eight feet four inches long, an unusual size and rarely met with in this species; the men said that they had never before seen one so large. A few days afterwards another one was killed in the same neighbourhood that measured nearly six feet in length, also rather larger than the average size.

On another occasion, on the termination of the day's work, on mounting my usually quiet patient old grey mule, he surprised me by suddenly rearing, and exhibiting signs of great terror; a snake was then seen to glide away from between his legs into the adjoining bushes. The men gave chase, but

⁵ *Mangangawa* is a word undoubtedly of African origin that is often used by some Mineiros as a superlative expressive of the large size of any species of insect, reptile, or quadruped.

failed to catch it. On examining the mule, a few drops of blood were found on the inner, upper part of his off fore-leg. I always carried with me, as an antidote to snake-bites, a bottle of liquid ammonia; some of this was applied to the wound supposed to have been made by the snake, and a man was sent off to fetch a bottle of *cachaca* from the Fazenda de Sacco close by. He soon returned, and the old grey was made to swallow the whole contents of the bottle. He took very kindly to his medicine, and, after a considerable time, as he appeared none the worse, I quietly rode him home. Eventually no indications of snake-poison appeared, and the bottle of *cachaca* seemed to agree remarkably well with the old fellow; he came up to time as usual the next morning for his corn, and did not appear to have the slightest sign of a "head" on him. The snake was probably one of the "boa" tribe, or perhaps a harmless green snake.

As an example of the difficulties of transporting in these bridgeless wilds any articles too cumbersome to pack upon a mule, I may as well describe the removal of my household effects from Tapera to my villa residence at Cambahúba.

After raising many objections, my neighbour Candido was finally induced to undertake the task, and on the day appointed he brought an old old dilapidated bullock-cart and six oxen, with harness as old and ruinous as the cart; the cattle were young, in poor condition, and untrained to the work. The departure of the loaded cart was made amidst such a hubbub of noises, such shouting of the men as they goaded the animals; the latter bellowed and kicked, and the ungreased axles of the cart as it got under way groaned and skirled like a Highlander's bag-pipe. The animals tugged in opposite directions, as two ants will do when they want to drag an impossible weight up a blade of grass; the cart banged against trees; every few yards something went wrong either with

oxen, harness, or cart, something broke or gave way, and the several streams that crossed the route were scenes of great excitement and confusion. Candido had undertaken to make passages by digging away the banks in sloping descents. On reaching these ramps the cart was turned round and backed a little, until the wheels reached the incline ; then as it began to descend by its own momentum, every one shouted his loudest, and wildly charged and prodded the poor bullocks, to force them to pull against the descent of the cart ; but the latter, getting headway on it, rushed down the slope, dragging the animals in a perfect *mêlée*. I expected to see a mingled chaos of carts and baggage and bullocks in the water of the bottom, all upside down, but it was a good launch, and all landed on their proper ends. After a long delay and much trouble, the cart was again turned round ; and then ensued more belabouring and prodding and shouting, to excite and spur on the cattle to drag the heavy cart up the opposite slope. Attempt after attempt was made and failed, until finally the baggage had to be taken out by the men, and carried on their heads up the banks, when, with great difficulty, the empty cart was dragged up after many more failures, the same scenes being repeated at every stream. The whole distance was only seven miles, and yet it required two days to traverse it.

My life on this section was anything but dull, for my comrades above and below exchanged visits, or stayed with me a day or two on their way to headquarters, for business, or their final stay there.

There was plenty of game in this district, but as the whole survey was behind time, there was none to spare for play.

Within a short distance of the second camp, in the forest of the banks of the Cambahúba, there was a great salt-lick in a cliff of red ochreous soil, a cave-like hole excavated by the teeth tongues and claws of all kinds of animals. The ground

around it showed fresh traces of the feet of deer, *capaviras*, *tapirs*, *peccaries*, *pacas*, and smaller animals ; and there even were traces of jaguars. I had intended many times to go some evening and wait for a shot, but the fatigue of the long day's work rarely left me sufficient enthusiasm to feel disposed to lie in wait for the chance of a shot, perched up a tree, in the darkness and solitude of night in the woods.

One night we had quite a festive occasion ; the carts of W—, D—, and C— all arrived simultaneously at Cambahúba, accompanied by the *camaradas* and C— himself. Many of the men, old followers of my friends, were more or less excited with the termination of their labours in so many miles of woods and swamps, and were evidently bent upon having a merry evening ; and we also, nothing loth, fostered their inclinations. Guitars were soon forthcoming, and groups ranged themselves on the grass-covered ground for the *batuque* dance.

A bright full moon peeped from between the gently waving leaves of a tall palm, and shed its clear brilliant cold light upon the scene, and gleaming on the foliage of the surrounding forest made its dark recesses blacker with the contrast. A log fire burnt merrily on the ground, and distributed its flickering rays upon the row of waggons, the grass ranchos, the moving or reclining figures of the men, the trunks of the trees, and the foliage of the underwood. The quaintly wild choruses, the shuffling steps of the dance echoed and re-echoed amongst the trees ; and, in the intervals of momentary silence, the cries of a goat-sucker, the *bacuri*, calling *bar-cöö-ree—bar-cöö-ree—*were heard amidst the dark silent depths of the forest. It was a picturesque scene, and the warm atmosphere, the surrounding darkness and solitude, the gliding figures of the rough men, and their wild music, all harmonized one with another in the weirdness of sight and sound. We also

felt elated at the approaching termination of our labours, as boys will feel on the eve of the holidays, and heartily joined the festivities of the men.

It was all foolish and boyish, perhaps, but those old rough times will be long remembered, when many a more sedate and respectable entertainment at home has faded away into the forgotten past.

A day or two afterwards, when I finished work and abandoned my eligible detached family villa residence, for the use of any benighted wayfarer, I determined to try canoeing it down to Pirapora, and chartered for the purpose a canoe dug out from the trunk of one tree, and a crew of two paddlers.

It was a lovely morning as we pushed out into the stream with the first gleams of dawn on the 24th of September ; mist hung about the trees of the banks, and the river smoked in the cool atmosphere. The crew stand upright at their work, one in the bow, and one in the stern of the craft, with heavy paddles of *aroeira* wood six feet long in their hands ; they dig into the water with quick and powerful strokes, always plying on the port side, and steering with an occasional turn of the blade. Well, this is luxury, I cannot but help feeling as I assume a lazy reclining posture along the bottom of the canoe ; this is far preferable to the jig-jog-jog of the mule, to thus glide onwards so smoothly and swiftly, past the tall banks and the eternal forest, so interesting in its ever-changing combinations of form and colour.

In some places the waters have washed away parts of the banks, and have brought down the stately trunks ; some show the red earth yet around the roots, and the green leaves on the partly submerged boughs, that create little eddies as the waters flow over them on their resistless way to the ocean ; others have fallen so long ago, that sun and water have bleached and grizzled their skeleton forms, coated with the

slime and hanging débris of past floods ; on these outstretched branches is the favourite haunt of the blue bronzed kingfisher, of the white herons, and of divers.

There are many little rapids, where we dash by water-worn black glazed rocks, or by shores and shoals of the rounded pebbles of the diamond formation. A strong breeze blows up stream and tempers the heat of the sun as it mounts higher and higher into the now cloudless blue sky. The banks are brilliant with bright glistening foliage, and trailing flowers, and red earth, so different to the wholly slime-encrusted vegetation and shores of the upper river. White herons and grand pearly butterflies skim the water ahead of us, parrots and parroquets, and chatterers, and noisy *cigarros* scream, and screech, and chatter, and whistle an uncouth noisy concert, mellowed by the sound of the rush and ripple of the waters. "*O bixo gordo!*" shout the crew, as a lumbering *capyvara* takes a header into the river with a loud splash, and disappears below the water.

We pass several riverside huts, unwholesome little places, dirty decaying and weed overgrown, rotten with damp and ready to fall with decrepitude ; they seem like ugly sores in the bright scenery, where nature is so lovely and bountiful, and ready to repay so generously the result of a little labour.

About 11 a.m. we landed on a clear bright pebbly shore to breakfast, and heat the indispensable coffee. The men had well earned a little breather, for they had been continually paddling for five hours without stopping, and to handle those heavy paddles even for a short time is no joke ; but the fellows appeared quite cool and fresh, and not in the least fatigued. Twenty minutes afterwards we were off again.

If the presence of the diamond formation is any indication of the existence of that much sought-for valuable, there should be a fair field for its exploitation on this little known

part of the Rio S. Francisco, for everywhere, on shore, and shoals, and in the *panellas* of the rocks, the formation exists and extends all the way to Pirapora ; the day will undoubtedly come when this valley will be tenanted by a more energetic and enterprising race, and its stores of wealth developed.

Towards mid-day, the wind, that had been blowing freshly against us all the morning, suddenly dropped, and the fierce sun then poured its burning rays on the oil-like surface of the water with increased fervour, and made one feel as though placed in front of a big fire to be roasted ; but, great undoubtedly as was the heat, the crew toiled on unflaggingly, in a way that one could not but help admiring.

It is so strange that these people, who are generally so idle and dissolute, can occasionally be capable of such a spurt of extremely hard work like this, sustained without a pause for nine hours, excepting only the short interval for breakfast.

About two o'clock we had a few moments of excitement, when we shot the rapids of the Cachoeira da Formosa ; the speed was grand and the steering excellent ; I could often touch the black rocks with outstretched hand as we rushed through some of the narrow channels. A long straight course of six miles of quiet water followed, and brought us to our destination, at 3 p.m., at Itaipava, or Itahypava, a small hamlet a mile or two above Pirapora. The voyage was thirty-four miles, and the time actually occupied was eight and a half hours, that is not bad canoeing, especially as the greater part of the time a strong head-wind was against us, and we only had the aid of a slow current in our favour.

Climbing up the steep banks of rock and earth, I found myself facing a wide and far extending plain, flat as a table, and thinly covered with scattered tufts of short wiry grass, and dotted here and there by rows and clumps of trees ;

close by the landing-place were some dozen old dilapidated wattle and dab huts, partly hidden by bushes, trees, and palms, wonderfully picturesque, but unpleasant to contemplate ; the uncared-for homes of hopeless laziness, and constituting the hamlet of Itaipava.

In passing by these doorless huts, one sees the men and many of the women swinging in their hammocks ; for they waste their days in sleep, and their nights in orgies of *cachaça*, and wild songs and dances. A very little labour serves to obtain their very simple requirements ; they want no more and are probably quite contented and consequently happy after their fashion, and perhaps to be envied by those who appreciate the delights of a pig wallowing in the mud and basking in the sun.

I paid the men their well-earned and stipulated price of ten milreis, that will provide them with a "divarshin" amongst their sleepy friends in the hamlet, and in Pirapora. I bade them good-bye, to which they responded "*Até outro dia, se Deos quizer*" ("Until another day, if God wills it"). They would make the same reply if they were positively certain there was no prospect of our ever meeting again.

A walk of a mile across the flat sun-dried plain of grass brought me to the hut of C—— and B. G——, on the borders of a clump of trees. My once assistant was still an invalid, and had scarcely done any work since I took him to Bagri, on that memorable long day's ride from Burity Camprido.

Later on I went to the camp at headquarters, about a mile away, consisting of five ranchos and two tents, built on a slight elevation above the plain, and close to a stream bordered by scattered trees and bush.

It had been decided that all finishing work, estimates, designs of works of art, tracings of all plans and sections, &c., were to be made and completed at Pirapora. The prospect

of at least a three months' indoor sedentary work in this exceptionally hot and by no means healthy district was not by any means pleasant to contemplate. Each engineer had to pitch his camp wherever he might choose, but it was forcibly suggested, and perhaps wisely, that we should not be near neighbours. For when a man is alone he naturally does work hard to get through the time and solitude.

The jovial C—— now arrived from a visit to F——, who was still at work on the last section terminating at Pirapora. We returned together to his rancho, and the usual programme is there gone through, but conversation after a time flags for want of any new subjects; all the "good stories" were worn threadbare, and C—— fell back upon his never-failing subject of cricket; as my eyes closed in sleep, the last I heard was a confused murmur of old Cobbits, bats with handles like weavers' beams, Grace, balls, and hundred yards.

The next morning, phew! how hot it was! it did not seem like the country we had been accustomed to, but more like the steamy mornings that are occasionally experienced in Rio in the hot season; a haze of heat hung over the plains, the air was close and stifling; everything, soil, grass, trees and bush, seemed parched with the dry heat, and not a brook was near for a bathe.

I rode off with B. G—— to see Pirapora and the celebrated Cachoeira or falls, and arrange for a camp somewhere. My men had meanwhile arrived with my baggage and my old grey mule, the latter carrying the monkey perched on her favourite seat, the top of the mule's head. The ground that covers the intervening two miles is perfectly flat; and as we cantered along it reverberated under the hoofs of the animals, and sounded as though we were galloping upon boards covered with cloth or other soft substance. I found afterwards that the plain consists of a huge flat plateau of rock covered

with only an inch or two of soil, bearing scattered tufts of short dried wiry grass.

This plain is almost treeless, but is circumscribed by scattered clumps of trees and bushes. Near Pirapora there is a shallow depression of the ground where a stream flows over layers of rock, surrounded by cerrado vegetation ; close by was an old ruinous adobe hut, that I adopted as quarters for the men, and made arrangements for building my rancho and pitching my tent. Beyond this locality the vegetation is thicker, and on reaching Pirapora about a half-mile further, we found grand trees growing on the river-banks. The village and the falls opened upon our view simultaneously, the roar of the waters we had already heard a mile away.

At last I saw before me the bourne for which we had so long struggled through so many miles of forest and swamp. Taking into consideration the fact that these falls are, after the grand cascade formed at the source of the river at the Serra de Canastra, and the great falls of the Paulo Affonso, further down stream in Bahia, the next in importance of a river of 2000 miles in length, the first impression is undoubtedly disappointing in appearance of grandeur, yet it is *alguma coisa* (something). Right in front of us appeared the river, 1700 yards wide of foaming tumbling whirling dirty yellow water, dotted with the points, pinnacles, or flat surfaces of black rocks ; further down stream no more rocks appear, and the waters, widening to 3500 feet, flow placidly onwards; but above stream, are seen two distinct falls caused by two ledges of flat rocks that traverse the river from side to side, the upper one has a length of about 100 yards, and acts as a dam to the river that has worn away a main channel in the middle and several smaller ones on the west side, the face of this wall of extremely hard rock has been wonderfully carved by the action of the waters in the

floods, into cavities, galleries, flying buttresses, clefts, pillars, and points ; the drop is only about six feet, and below this there is the second wide ledge of rocks varying from 50 to 150 yards in length ; the surface of this lower barrier has also been worn and carved into varied forms, chiefly deep basins or pot-holes (*calderoës*), filled with water, teeming with fish, and forming natural aquariums ; the bottoms of these holes are covered with the pebbles of the diamond formation. Another drop of five feet in the middle and western half of this lower ridge terminates in the scattered rocks and whirling waters of the rapids in front of us. The total of both falls is only about thirteen feet, and falls and rapids barely exceed 1000 yards in length.

I am now again on the tracks of Captain Burton ; he describes the substance of the rocks of Pirapora, as "generally a hard compact *gneiss* (*grauwacker sandstein*, *gris traumatico*)⁵ of light purple tinge, dotted with specks of mica, glistening white." The *grauwacker* is a good hard name, and quite gritty and hard enough in sound to convey an impression of the exceeding hardness of these rocks, that ring like metal when struck with a hammer ; the grain is extremely fine and close, and of a neutral tint colour, the strata is horizontal.

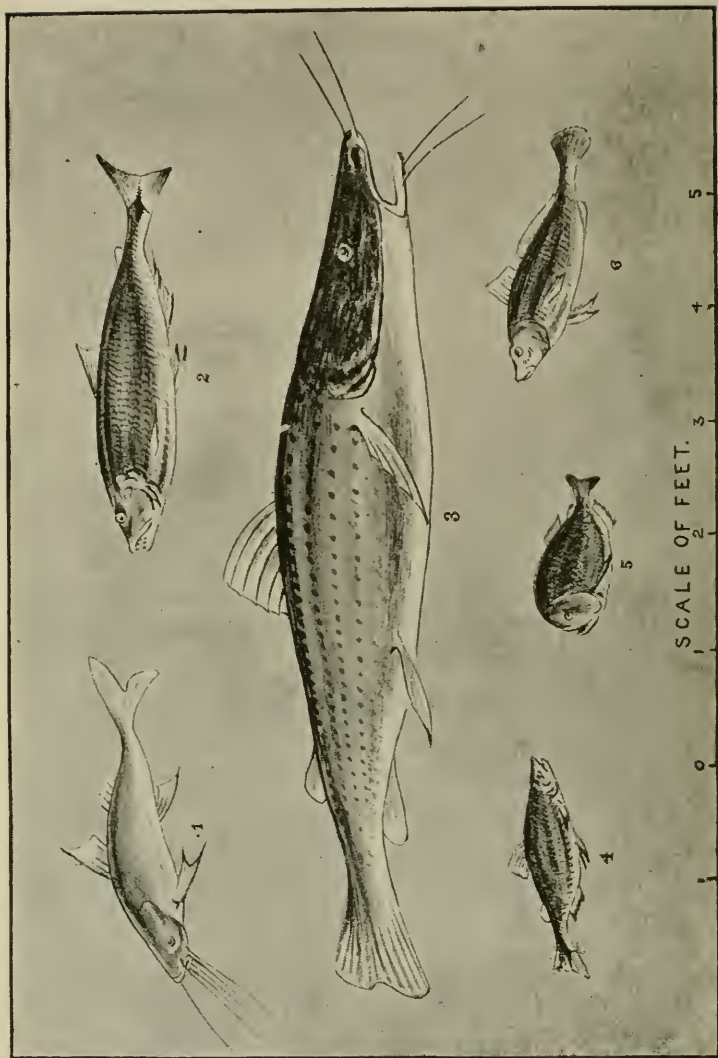
The village of Pirapora is an assemblage of thirty-six ruinous dilapidated straw and wattle and dab huts, standing in an irregular line in groups of two or three, or singly, divided by the remains of fences and by bushes and trees ; they all face the foot of the race of waters, and are parallel with the shore ; and, with only two exceptions, all are stayed with props to prevent their tumbling over. The banks, which are some fifty feet above the water, are crowned with several fine trees, *Pitombeiras* and *Gameleiras*, beneath whose

⁵ M. Halfield, in his "Survey of the S. Francisco," somewhat similarly described the rock as *Gris traumatico*, *Grauwaarden Sandstein*.

umbrageous shade the very little business and continual gossip of the villagers is transacted.

The view down the hot deep-sandy street, if picturesque, certainly does not show any elements of comfort, or offer any inducement as a desirable neighbourhood to live in. There those vile animals the Brazilian village pigs, gaunt and long-legged, perfect ghouls of the swinish race, are roaming about by dozens; a poor heavy-eyed knock-kneed bony horse stands patiently in the fierce sunlight, tethered to a post by the roadside; a few men are lying under the trees, some asleep in every attitude of limp laziness, others playing cards or smoking cigarettes; a few women pass along dressed in coloured print skirts and white, coarse embroidered chemises (the latter covering only one shoulder), gaudy blue or red handkerchiefs or shawls cover their heads and backs. Naked pot-bellied brown and black children "skylark" and roll over one another in the dusty road, regardless of our animals' hoofs.

The women are all brown or black and uncomely, the old ones are veritable witches; the men are browner and blacker than the women; all, both male and female, have scowling, sullen faces, their deep-knitted brows are fixed and constant, and expressive of their dull wasted lives and unbridled passions. Captain Burton says, on landing here, "Its principal features were huge seines and large fish, split, and hung on gallows to sun-dry. The people do not export this produce, but sell it only to passing mules." Also further on "About a dozen men raising *desmonte* from a pot-hole (*panella*) between two boulders deeply channelled out by the joint action of sand, gravel, and water. For small and valueless stones they asked per *rintem* (two grains), from 12\$000 to 14\$000, something above the London prices." His visit was made some eight years previous to mine, and apparently by his descriptions the place is in an even greater state of de-



SOME FISH OF THE RIO SÃO FRANCISCO.

1. Mandim.
2. Dourado.

3. Surubim.
4. Matrinção.

5. Piranha.
6. Curvina.

cadence than when he visited it; for during my three months' residence, I saw no fish seines, nor a mule in the district besides our own, let alone the passing mule troops that he mentions as the purchasers of the dried fish; neither could I find any diamonds to purchase, either large or small.

This place, by the abundance of magnificent fish that the falls deposit in the pot-holes of the rocks, (and that only require a boy to go with a spear to obtain any quality or size of fish he may wish for,) provides the principal food of the inhabitants,⁶ and their only stimulus to any labour whatever is to obtain their *cachaça*, cotton clothes, and a little *farinha*.

Near the falls, on the banks, were very considerable piles of pebbles that had been taken from the crevices, pot-holes, and galleries of the rocks by the *garimpeiros* or diamond-hunters in the years long gone-by.

I could not obtain any local information as to when the workings ceased beyond a "*Óra! já faz muitos annos*" (oh! now it is many years since). I never once during my stay there saw any attempt made at washing the new deposits of the pot-holes, either for gold or diamonds, that must necessarily be constantly reforming, neither did I attempt it myself, as I had my work and duties to attend to.

Continuing our ride through the village, we passed, on its opposite extremity, some open dwarf woodlands, filled with

⁶ The following are the names of the fish most commonly met with in the river :—

Surubim, a large toothless scaleless mud fish, often attaining six feet in length. Great quantities of this fish are caught and salted.

Curumatám, *Dourado*, and *Matrixám*, all excellent fish of the *Salmonidæ*; they average two, three, and two feet respectively.

Pirá, two and a half feet long. *Trahirá*, two feet in length.

Mandim and *Pocomó*. The former somewhat resembles a whiting in form and colour, plus a number of long barbules on the upper and lower lips. This fish utters a sound somewhat like the grunt of a pig.

The other fish in their order of size are : *Bagré*, *Piau branco*, *Curvina*, *Cascuda*, *Piránha*, and *Piaba*, and there are hundreds of smaller varieties.

flowering shrubs and considerable masses of very fine *arums* in flower, and then emerged on to a long wide shallow depression that passes at the rear of the village to a considerable distance down stream ; although the soil is there very dry, its grasses were yet fresh and green ; on the borders of the hollow the land rises a little higher and is covered with a fine grass sward, dotted with clumps of trees surrounded at their bases by many varieties of flowers ; altogether the land here has quite a park-like appearance.

Three miles from the village we found the camp of W——. He had suffered long and terribly from the effects of fever, but although still full of pluck and energy, his health was so broken up that he was not able to proceed on the second expedition to the Tocantins.

In a few days my camp was completed, and I got to work again ; but in those days of October the heat became intense, even under the thick grass roof, and with the sides and ends of the hut well open and the interior ventilated, the thermometer registered 109° (F.).⁷ Working at drawing or writing in this heat became well-nigh impossible, the perspiration streamed on to the papers so copiously that a cloth had to be spread on the table in front of one. There was not a breath of air anywhere, and outside the hard rocky soil radiated clouds of vibrating suffocating heat ; even the water of the stream was hot, coolness existed nowhere.

On one occasion having to go to headquarters, and requiring some exercise, I foolishly set off in the excessive heat of day to walk the intervening two and a half miles across the shadeless plain ; heat apoplexy followed my thoughtlessness. I found myself wandering aimlessly in no particular direction, my memory utterly gone even to recognizing the surround-

⁷ This is the greatest degree of heat I have experienced anywhere in Brazil during seventeen years' experience in various parts of the empire.

ings, the heat seemed to stifle me. I felt as though the sun's rays were the heat of a furnace. I remember laying myself down and crawling on the dry parched ground in a mad search of shade of the few inches of dried-up brown grass of the plain ; fortunately a horseman came along at the moment, picked me up, placed me on his horse, and carried me to C——'s rancho. I was told afterwards, that I walked in naturally, but recognized no one and was quite delirious ; external applications of cold water to the head, face, and chest, and internal ditto of a little weak brandy and water sent me off to sleep. I only awoke late the next morning, feeling much confused about time or place, but gradually the feeling wore away, and in the evening, after keeping quiet all day, I was fairly convalescent,

The neighbourhood of my camp abounded in extraordinary quantities of birds, small animals, and reptiles, consisting chiefly of the large *ariel toucan*,⁸ with golden neck dark glossy purple-black back and wings, and dark red breast ; red-crested woodpeckers ;⁹ the common green parrots ;¹ ring-doves,² the noisy black-and-yellow *xexêo*, (or Brazilian mocking-bird) ;³ the magnificent crimson *sangue de boi*, *screnhemas*,⁴ and on the plains the Brazilian emus or *emas*,⁵ several species of tiny manakins and warblers, small doves, black and white *maria preta*, *jôdo de barra*, *bem-te-vi*, and humming-birds,⁶ and on the rocks of the falls were considerable

⁸ *Ramphastos Ariel*.

⁹ *Dryocopus galeatus*, and *picus canipilcus*.

¹ *Psittacus Braziliensis*.

² *Cardophaga*, *sp.*

³ *Cassicus persicus*.

⁴ *Dicholophus cristatus* ; *palamedea cristata*, Gmelin ; and *saria* of the Guaranis.

⁵ *Rhea Americana*.

⁶ Amongst the humming-birds were the extraordinarily long, straight billed, bronze green *Docimastes ensiferus*, the *Bourcieria torquata*,

quantities of the *guaras* or ibis, in two varieties (one black and the other a light pink); ⁷ light carmine spoonbills, ⁸ divers, and beautiful white herons. In the wet marshes above Itaipava was seen the gigantic ugly stork, *jabiru-moleque*, ⁹ numbers of the common *jaçaná*, ¹ that is met with in almost every marsh in Brazil with the *gullinhas d' agoa* and a species of stilt-plover; the pretty *mareccas*, (wild duck); and in some of the streams, the fine large duck, *pato do matto*.

In the cerrado close to my rancho were also very considerable quantities of small rabbits (the only species that I have seen before or since in Brazil, and as the Piraporanos would not eat them, and left them unmolested, they were consequently so tame that they could be knocked over with a stick); the pretty and graceful deer, the *viado do campos*, was only rarely seen on the plains; there were also numbers of the small *prihá* that somewhat resembles a small dark-brown guinea-pig; *quatis* and *cotias*, both of which were often brought to me to purchase, for their flesh is excellent.

Of reptiles, there were two species of *armadillos*, and several of lizards, amongst the latter, the great black *tiju-assu*, ² over four feet in length; the handsome blue-green, smooth-necked *iguanas*, called here *camelcoês*; ³ these latter, that often approach to nearly three feet in length, will give a smart blow with their long, fine tails like the stroke of a horse-whip; so sharp is the blow that in chasing them I was often struck by them, and felt the stroke even when my legs were protected by the leather of my top-boots.

with purple crest and breast like snow-flakes, and the common gorgeous gold-breasted *Chrysolamprosis Moschitus*.

⁷ The red variety is the *Ibis rubra* or *tatalus rubra*.

⁸ *Platalea Ajaja*. *Aiaia* of the Guaranis.

⁹ *Mycteria americana*. Its Guarany name is *tuyuyu*.

¹ *Parra jaçana*.

² *Tupinambus nigropunctatus*.

³ *Agama picta* and *A. marmorata*.

Probably owing to the presence of such considerable numbers of rabbits, my camp and its neighbourhood was extraordinarily infested with snakes of various species.

One day when bending over my table at my work, my boy, Adão, happening to enter with his plates, stopped suddenly in the doorway and shouted, "*Oi! Senhor Doutor, Oi! cobra!*" (Look! Senhor Doutor, snake!). I hastily looked around. "Where?" "*Ahi! ahi! em cima da cabeça*" (There, above your head). I looked up and saw a long black-and-yellow *caninana*, hanging down like a rope, the end of its tail coiled round the rafters, and his head within a few inches of mine. A blow with a stick soon despatched the *bixo*. It is not a venomous snake; but it is startlingly unpleasant to suddenly find oneself in such close proximity to such a reptile.

On another occasion one of my colleagues had paid me a visit, but not finding me at home, he had disposed himself in a very slackly-hung hammock to await my return. When I arrived and entered the hut, I saw a small *jararaca* coiled up on the ground beneath my slumbering visitor, and another brown snake wound around the ropes of one end of the hammock. I shouted and awoke my dozing colleague, and then it was amusing to see his scared face as he hastily and ineffectually struggled to get out of his deep bed, until a stick killed the reptiles and relieved the agony of the poor man.

One day, my men Manoel do Matto (Bob) and Adão, came running in to tell me there was a huge snake close by in a place where the stream had widened out into a lakelet overgrown with reeds, water-lilies, and other aquatic vegetation. Proceeding down to the place, I saw a part of the fold of a *sucurihu*,⁴ just above the level of the shallow water near the

⁴ This species is known generally in Brazil as the *sucurihu*, but in Pernambuco as the *cobra de veado*; *culebra d'agua* of Venezuela; *boa scytale*, *boa murina*, Linn.; *boa aquatica*, Prince Maxim; *eunectes*

shore, the rest of the body was out of sight; taking a careful aim with my revolver, I sent a bullet into the part exposed to view; the reptile then began to slowly surge forward, like a worm working its way into soft ground, until the tail appeared in sight. Bob, who had meanwhile been eagerly watching its evolutions, at once dashed into the water, and seizing the point of the tail with both hands, gave a violent jerk and landed the beast on shore, where it was soon despatched. It measured ten feet four inches; that, according to the tales one constantly hears of the marvellous powers and enormous size that this species attains, could only be considered as a baby *anaconda*. I can only say that I have been repeatedly assured by countrymen who have been in the favoured haunts of this boa, that it has been known to crush and swallow a bullock, covering it with saliva previous to the act of deglutition.

Gardner also, in his "Travels in Brazil," relates seeing the dead body of a *sucurihu* thirty-six feet in length, with the bones of a horse in its stomach.

It would take up too much space to mention the other numerous snakes we killed and the circumstances in which we met with them. It became at last such an almost everyday occurrence that many were killed by the men without their thinking it worth while to let me know. I myself killed about twenty snakes in and around my rancho, consisting of small *jiboias* (boa-constrictors), *caninanas*, *cobra verdas*, and coral-snakes, neither of which are venomous, but there were a few of the deadly *jararacas*⁵ and *surucucu*; *murinus*. The name *anaconda* is applied by Cuvier and most naturalists to this snake, but the name is of Ceylonese origin, and really belongs to the *python tigris* of that country. The *caninana* killed in my rancho is of a somewhat similar species and habits, but much smaller, and it rather prefers the *terra firma*, and its colour and markings are different.

⁵ *Craspedoccephalus atrox*.

the latter is similar to the "great viper" of Cayenne and Surinam. Rattlesnakes are reported to exist in the neighbourhood, but I did not meet with any.

In November the rains commenced and the temperature became much cooler, falling to an average of 80° ; but towards the end of the month the rain ceased and it again mounted up to 90° , which is yet too hot to be agreeable, and makes one look at the hammock with wistful eyes.

After this experience of Pirapora's hot season, one can more readily comprehend the somnolence and indolence of the inhabitants, for during the exercise of my sedentary occupations I could feel the craving to "do nothing" creeping upon me almost imperceptibly. It required copious douches of water and vigorous exertion to struggle against the incubus, for once a man gives way to it, in such a climate his energy is, if not gone, greatly marred.

I took daily walks at sunrise and sunset to the falls and to the park behind my rancho. At these times Brazil everywhere assumes its most beautiful raiment; the hard harsh glare and shadeless aspect of the mid-day, gives place to rosy warm colours and long slanting masses of shadow, as the sun sets or rises behind trees and hills. The falls at these times are really grand; the light is subdued, the soft delicate tones of the sky are reflected upon the wide expanse of rushing waters and masses of dark rock, making the former appear like streams of molten gold, and the latter like the dull red of heated iron; the dark outlines of the trees and the palms of the banks stand out in delicate tracery against the evening sky, and gleam in flashes of light the last rays of sunlight; there is only heard the rich cadence of moving waters, or the tum-tum of a *viola* or the sounds of low chanted songs in a neighbouring hut, that even serve to give a soft melody in sympathy with the scene of beauty.

What may be called "the park," are the grounds at the rear of my rancho, distant some two hundred yards or so through bushes and trees. This is a district that is peculiar to the place and exceptional in its charms. After the rains, a soft bright-green sward of grass appears on the gently undulating ground; on the slightly higher land bordering the hollows are *capôes* (clumps and thickets of trees), each one fringed by a variety of flowers and shield-leaf, arborescent arums,⁶ the whole vista looking so trim and neat, that it is hard to conceive it is the work of nature and not that of a landscape gardener. Amongst the trees are mainly conspicuous the grand masses of colour of the purple flowering *bignonia*, the *ipê*;⁷ the golden flowers of the *carahyba do campos*, and *pin-aahibás*, aroeiras, palms, and acacias. One follows the winding path amongst these groves and feels in a veritable paradise. At sunset the air is soft balmy and fragrant with the rich perfume of many clumps of blossoming *myrcid*. On the verdant sward fall alternately patches of warm golden light, and deep cold bluey-green shade; the birds chatter and warble their "good-nights," the shadows deepen and extend, darkness rapidly comes on, the sky changes from pearly azure to blue-green, and finally the dark blues of night, then the stars appear and flash and twinkle, as we only see on a frosty night, a silence creeps up, only marred by the sounds of night-birds and frogs. *Ai de mim!* It is very pretty, but so very lonely and dull, I must return to my rancho, and, like a Robinson Crusoe, chat with my parrot and dog, or the monkey Donna Chiquinha, who always purses up her mouth and utters a sympathizing roar when I address her, for we are now the best of friends, and she has lost all her former viciousness. She is slow and sedate in her movements, unlike the restless activity displayed by most monkeys, but even so, she serves to amuse many an idle moment.

⁶ *Caladium arborescens*.

⁷ *Tecona curialis*.

Yet this Pirapora work was not such a life of solitude as that on the sections, for we made little breaks in our lives by an occasional visit to each other, and I often received rather objectionable visits from my neighbours of the village, who were curious about everything, were extremely uninteresting, and could impart but little information. The most frequent visitor was a Senhor Araujo, the only *negociante* in the village (merchant, trader, shopkeeper, the word is applied to all alike). He was a tall meagre sinewy whitey-brown man, about forty years of age, and owned a very small store in the village, with which he supplied the extraneous necessities of the place, consisting principally of *cachaça*, tobacco, guitars, cotton prints, boots, spurs, mule and horses' shoes and nails, straw hats, gaudy handkerchiefs and shawls. He was *the* man of the village, and was reported to be *rico* (rich), in a place where 500*l.* in ready cash constitutes a very rich man. He was always extremely inquisitive of my few belongings, and his curiosity was finally punished in a very funny manner. On one of his visits he found my bottle of spirits of ammonia on the table, and seeing it was something he had not hitherto inspected, he naturally laid hold of it, and asked of me, "*O que é isto?*" (What is this?). "Only a medicine," I replied; and with much satisfaction watched him hold it up to the light, look at it all round, turn it upside down, and finally remove the glass stopper and then take a good sniff. I had to rush forward to save my precious ammonia, as he staggered and gasped for breath and ejaculated, "*Estou morrendo!*" (I am dying). "*Ai!—Sancta Maria!—Cruz!—Ai! ai!—Ave Maria!*" By dint of much slapping of his back and dousing of cold water, he quickly recovered; but never more did he touch my things.

I was much amused by hearing the common prevailing opinion in Pirapora as to the origin of this man's success. He was at one time known to be absolutely penniless, until

he appeared to be suddenly and unaccountably possessed with considerable means that was explained to me as follows. Senhor Araujo was one night journeying through the Gerães when he met a stranger who invited Araujo to camp with him. Araujo not objecting, accepted the offer, and the two lighted a camp fire on the borders of a wood, and shared their provender and *cachaça* with each other; the stranger then produced a *viola* (guitar), and proposed a song and dance; and Araujo, being a noted *cantador de moda* and dancer, was nothing loth, and footed it merrily with his fellow-traveller, who expressed himself delighted with the capabilities and agility of his comrade, and bestowing upon him a big bag of gold, he immediately disappeared. The stranger was the *diabo*. Absurd as is the story, it was related to me with all due gravity as a *bonâ-fide* occurrence.

I must now pass over the many little incidents and occasions that served to while away a few spare hours and break the monotony of the time—the walks and gallops over the country, our visits to one another, and little dinners and pleasant evenings, an occasional afternoon's or morning's shooting and fish-spearing on the falls, or an excursion to the opposite more elevated and hilly side of the river (where there is the only farm of the district, and the best site for a settlement), or an evening's paddle in a canoe, each of which might easily be enlarged to a chapter.

At the end of the year we broke up our little community, and prepared to depart our respective ways. J. B—, the chief, accompanied by F—, O—, and H. G—, will travel down the São Francisco to Carinhanha, and from thence explore the western land for the ways and means of opening communications to the Rio Tocantins. I received my orders to proceed alone lower down the river to the Barra

do Rio Grande, and explore another route to the same Tocantins. The first route is known and daily travelled over ; mine consists largely of quite unexplored and unknown lands. Nothing could I desire better than such an opportunity to experience the real wilds of Brazil. All the other members of the staff will return to Rio de Janeiro and thence home to England. I would much have liked to have had C—— with me as a companion, but it was not to be.

For a summary of our two years' work, see Appendix A.

CHAPTER XII.

FROM PIRAPORA TO CORACÃO DE JEZUS.

Depart from Pirapora on a long journey—My troop—Object of the journey—The road—Passage of the Rio das Velhas—A ducking—Guaicuhy and the mouth of the Rio das Velhas—My troop is increased—The village of Porteira—A decayed mining centre—Abandoned gold and diamond mines—Brazilian “*enfans terribles*”—Obliged to leave the flooded roads of the valley of the São Francisco—A local magnate—An industrious negro family—Superiority of the black to the whiter natives in Brazil—A cattle station—Under canvas—Passage of the flooded Rio Giquitahy—A thick cerrado—A sharp climb—The table-lands of the São Francisco, and their pure atmosphere—A gusty night—Breezy highlands—A thriving cattle-farmer and a good fellow—An abandoned estate and its causes—An important Fazenda—Churlish treatment—I sleep with the pigs—A troublesome ford—A lake in the highlands—Heavy travelling—A slippery descent to Coração de Jezus—A village of idlers—Curiosity of the inhabitants—The village and surrounding scenery.



Passage of Rio Giquitahy.

January 5th, 1875.—This was one of the eventful days of my experiences, the day on which I bade good-bye to my colleagues of the past two years' hard work, and when I commenced the long journey to the distant north.

Messrs. W—, D—, C—, and B. G— returned to Rio and thence to England.

O— and G— had already preceded me some days.

B—— and F—— intended to go by river a few days afterwards.

My troupe consisted of Manoel do Matto (Bob), a tall powerful young Creole negro, and a younger black boy, Domingos, both of whom went on foot. The animals consisted of my old grey mule, two lean and bony horses for pack animals that I had purchased for thirty-six milreis each say 3*l.* 12*s.*); they were wretched hacks, but the best that could be obtained; my dog Feroz, and the monkey, Donna Chiquinha. The latter occupied her seat on the top of the head of my mule, by holding on to the abnormally long ears, one in each arm. Both the animals seemed happy in the arrangement, but the appearance was rather comical.

My instructions were to proceed to the city of Barra do Rio Grande, 690 miles down the Rio São Francisco, and from thence make a reconnaissance of the rivers and valleys between that city and the Rio Tocantins, selecting for this purpose the courses of the Rio Grande (a tributary of the São Francisco) and of the Rio do Somno, an affluent of the Rio Tocantins; afterwards to proceed to the city of Bahia, and deliver my reports, plans, &c. The object of the reconnaissance was to report upon the most advisable means of establishing communication between the two before-mentioned great rivers, either by roads, railways, canals, or river navigation.

I carried with me a thermometer, prismatic¹ and pocket compass, a watch, revolver and ammunition, a Crimean officer's tent—the latter really too heavy for a pack-horse, but it was found to be very acceptable in rainy weather); the old saddle and harness, rugs, mackintosh cloak and sheet, hammock; and of commissariat supplies, a stock of

¹ At Carinhanha Mr. B—— further provided me with two large aneroid barometers.

black beans, *farinha de mandioca* (cassava groats), maize, dried beef, salt pork, a bag of salt, some bottles of Worcester sauce, a demi-john of *cachaça*, and an assortment of those abominations, tinned provisions. The medicine-chest was not extravagant or likely to be dangerous in the hands of an unskilled practitioner, as it consisted only of Pyretic Saline, Cockle's pills, and quinine.

But a review of my wardrobe after two years' wear and tear of the woods, presented a very sorry appearance; but many a deficiency can be supplied by a little ingenuity, for riding-boots can be turned into leggings by cutting off the worn-out soles; red tape makes lovely cravats for state occasions, when no others can be procured; the sap of the *mangaba* tree is invaluable for repairing damages to hosiery by spreading the milk on a piece of material a little larger than the area of the hole to be repaired, then fill the sock with sand and stick the plaster on the opening, coagulate the milk with a little acid and it becomes india-rubber, and sticks to the sock like a famishing *carapato* to a full-blooded Britisher. It must be remembered that I had entered this expedition utterly devoid of any of those wonderful arrangements that London outfitters so ingeniously invent for verdant youth to purchase, and consequently I had not one single superfluous article to impede my movements.

The land between Pirapora and the mouth of the Rio das Velhas forms a long narrow tongue of slightly hilly land, covered with cerrado vegetation. The road is a mere bridle-path, freely obstructed by projecting trunks of trees, against which the pack-horses collide and tumble down, or are thrown on their haunches. Under similar circumstances, a mule would only stagger a little, rapidly recover itself, and rush off at a gallop in any direction but the right one.

The men were unskilled in adjusting a pack, the animals

and harness were in poor condition, and at every collision something gave way, necessitating a stoppage and repacking, accompanied on each occasion by a flow of comments of "*Diabo de cavallo ! cavallo do diabo !*" &c.

When a foreigner has thoroughly learnt this word "*diabo*," he may consider he is fairly conversant with the Portuguese language "as she is spoke" in the interior of Brazil, as this one word is constantly used in every few sentences and certainly forms the greater part of all terms of endearment and expressions there used in daily life.

I hurried on alone to Guaicuhy, twenty miles from Pirapora, to see if by exchange or purchase my troop could be improved.

I arrived at the mouth of the Rio das Velhas at 4 p.m., where I had to exercise my lungs in shouting, "*O passador ! O ajoujo !*" The ferry craft (two canoes forming a pontoon raft of planks) was there, but no ferryman appeared in sight ; at last, weary with waiting by the shore, and espying the roof of a hut amidst the trees some distance away, I went there to make inquiries. In answer to my calls, out of the hut came an old mulatto, *in puris naturalibus*, and yawning fiercely ; he carried in front of him a tin basin instead of a fig-leaf. This was the jovial ferryman, who had been sleeping off the effects of too much *cachaça*. In stepping on to the raft, I pulled my mule after me, but instead of coming aboard in a gentlemanly mulish way, he made a leap, and I found myself taking personal observations of the bottom of the muddy river ; when I came up, that naughty Portuguese word in such universal use in Brazil promptly occurred to me ; it is not altogether such a very bad word under some circumstances of annoyance, and its utterance tends to relieve one's ruffled feelings.

On the opposite bank I fortunately found an acquaintance,

a Senhor Camillo, a trader whom I had met in Pirapora, and who kindly lent me a change of clothes and offered me the hospitality of his house.

Guaicuhy or Manga,² as it is usually called, is a small hamlet consisting of a scattered collection of about fifty houses, and wattle and dab huts, and two small *rendas* or stores, containing the goods in most general demand, such as Manchester calicoes and prints, Portuguese wine, English beer, Hollands, *cachaça*, Swedish matches, sugar, dried beef, salt pork, beans, farinha, maize, hardware, earthenware, &c. The houses extend from the extreme point of land at the mouth of the river up the north bank, and face the stream. There is an old roofless ruin of an unfinished church of Nosso Senhor Bom Jesus de Mattozinhos, commenced 150 years ago and never completed; its interior showed some good pilasters of stone and other masonry; but as the roof and the front had never been constructed, it was about as useful as a bottomless sedan-chair; and yet I was told that service is occasionally held in such an apology for a church. When the Dom Pedro II. Railway reaches the Rio das Velhas and the obstacles to the navigation of this river are removed, there will doubtless be an increased traffic on this fluvial highway, and the Manga, by its position at the junction of the rivers, ought to become eventually a place of importance, were it not that its low situation militates against its position as a town, as the flat lands adjoining the banks are liable to inundations, and to be covered with a depth of five to ten feet of water in great floods.

But, owing to the scanty immigration, it must be many

² 1736 feet above sea-level. Guaicuhy (pronounce *Goo-ar-ee-coo-ee*) is probably a corruption of Guayaxim, the old name of the Rio das Velhas, and found on obsolete maps. This river was first explored by Bartholomeo Bueno, in 1701.

many many years before the passenger and goods traffic can be sufficiently developed to enable the freights to be lowered to such rates as will leave a liberal margin for profit to the growers and exporters.

At present the produce could hardly bear the actual cost of running half-empty trains and steamers over such a great distance as Rio de Janeiro to the Rio São Francisco, more or less 850 miles, the navigable part of the extremely tortuous Rio das Velhas being approximately half that distance.

If the country was blessed with a great flow of immigrants like the Argentine Republic, means would be forthcoming to develop and utilize this rich land, otherwise the present small traffic must be conducted at continual expense to the Government.

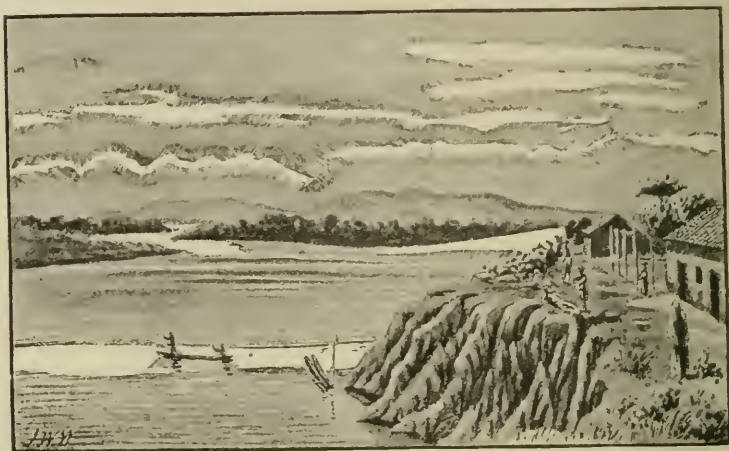
The extension of the D. Pedro II. Railway beyond Juiz da Fora has hitherto only resulted in loss to the Government.

When my troop arrived late in the evening, two of the horses showed raw backs, due in a great measure to the unskilfulness of the men in packing the loads.

It was rather an ominous beginning of my travels, but only what might have been expected. Fortunately during the evening I met an experienced creole negro *tropeiro*, Francisco Egidio Nunes by name, who, for the consideration of two milreis per diem (about four shillings) and his food, agreed to enter my service to accompany me as far as I required him. But he pulled a long face, and shook his head dubiously at the sight of my wretched Rozinante-like horses, and suggested a purchase of mules at Porteira, a village some two miles away, to which proposition I only too gladly assented.

He promised to come early the next morning, and before leaving he overhauled the pack-saddles and harness in a business-like manner comfortable to witness, and then directed the men to make sundry alterations and repairs. In the

early morning the view from Camillo's house of the rivers Velhas and São Francisco was very charming. A heavy fall of rain during the night had cleared the air, and created a delightful freshness; but still great banks of clouds were swiftly borne across the otherwise azure sky. The low sun, partly hidden behind the piled-up masses of vapour, here and there sent long shafts of bright light upon the broad expanse



The junction of the Rio das Velhas with the Rio São Francisco.

of water, in masses of glistening sunshine, that lighted up the rich reds of the banks, and the dark verdure of the forest of the lowlands, that stretched far away to the soft blue outlines of the distant Serra de Genipapo in the west.

Early in the morning I went to Porteira with Chico.³ The ride was through what might be a rich producing country for say tobacco, rice, sugar, coffee, maize, beans, hemp, and all semi-tropical productions; the soil is a rich red earth, and the vegetation is rank and luxuriant. We passed on the roadside a few *roças* or plantations, but they were dreadfully

³ Frank.

untidy, neglected, and overgrown with bush and grasses. Porteira once ranked as a villa or town ; now it has lost its pristine dignities and become simply a village. Its decadence is due to the abandonment of the once extensive and thriving gold-mines of the neighbourhood. At the entrance to the village is an old house of considerable magnitude, formerly the municipal chambers of the *ci-devant* town. Common report states that the building was constructed over the entrance to a drift leading to the mines in the hills that rise up immediately behind the edifice. A very rich mine was also worked in the Serra de Rompe Dia⁴ about three miles away, and diamonds were found in the Rio Jiquitahy. If I inquire of any one about the existence of gold in the neighbourhood, they invariably reply "*tem muito ouro.*"⁵ The natural inference is, why do not these poverty-stricken people endeavour to secure it ?

The village of Porteira is more or less like all the other villages in Brazil ; they only differ in the circumstances of their location. Here, as usual, is the church on one side of a *praça* or square (occupying, as do all churches in Brazil, the best situation for views) ; the best houses, and the principal *vendas* or shops form the other three sides of the *praça*. In the rear of the little square, in something more or less approaching streets, or scattered amidst the adjoining bush, are the wattle and dab huts of the poorer classes, or rather poorer people, for there is hardly sufficient distinction to create classes.

The walls of the better houses are built of adobe bricks plastered and whitewashed, and the doors and windows are painted in all the brightest colours of the local painter, irrespective of contrast of tones. One sees vermilion door-frames

⁴ The Dawn-of-Day Mountains.

⁵ Pronounced *tain moo-o-into ooro* (there are heaps of gold).

and light-blue doors, vermilion window-shutters and bright green or yellow window-frames ; and yet, in consequence of the brilliancy of the sun and the luxuriant vegetation, the incongruity does not appear so painful as it would in the more subdued light and tones of an English landscape ; even in England on some rarely bright sunny summer day, a flash of colour is often wanting to enliven the quiet greens of the foliage or the dingy colour of brick walls and houses. Porteira and its neighbourhood show many evidences of a bygone prosperity, in the existence of old farm buildings of considerable pretension, that are altogether incompatible with the present poverty-stricken appearance of the district and its inhabitants. The locality is reported to be very unhealthy, intermittent fevers and ague of a severe type being very prevalent in the first months of the year, that is, at the end of the rainy season.

Chico directed me to a general shop kept by a Donna Oligaria, the reputed owner of some mules. The lady, a neat buxom grey-eyed widow, was occupied in her shop, whilst waiting for customers, in instructing her seven children in writing and simple arithmetic. When I say seven, that is not quite exact, for one, the smallest, was on his back on the ground, howling at the top of his voice, and two others were tugging at each other's hair. I waited for the din to cease, but that was foolish, for when young Brazil commences to roar, he is usually given full licence to continue as long as he likes, although he may be mildly requested to "*não chora meo bem*" (Don't cry, there's a dear). The amount of noise a Brazilian child can develop, and the time he can keep it up, will, I am sure, be fully appreciated and remembered by all travellers in Brazil. If there was more of the birch-tree in Brazil, it would greatly alter and improve the race ; unfortunately, it is not only not indigenous, but never seen.

The donna at last lost patience, and told her child to "*calla boca, meo bem !*" (shut up, my dear !), but it only gave the little demon new vigour to howl the louder. The donna had to carry him indoors kicking, swearing, and spitting like a wild cat, whence we heard his sweet tones sharing a melody with the cackling of fowls, the gobbling of turkeys, and barking of dogs.

In answer to my inquiry, the donna told me that she had only one mule at home, the others being away on a journey, and even this mule was in a pasture several leagues distant, and could only be produced next day. I inquired in the village for any other animals for hire or purchase, but could find none, and had no remedy but to wait until the next morning.

The next morning, duly arrived a small middle-aged but good-looking hinny, or mule bred from a donkey dam. I had to pay for it 110 milreis (about 11*l.*). I knew it was more than full value, but I was glad to get even this poor little animal. It was nearly 2 p.m. before we could get away on our march, and say good-bye to my hospitable host, Senhor Camillo, and his numerous family of nine children, each one having a "two to three English-child-power" capacity for howling.

The expense of clothing young Brazil in these country places must be very slight, and be a light burden on the parents ; a tooth-pick and an orange, with a liberal supply of dirt, all of which is cheap, is apparently all that is absolutely necessary.

It had been my intention to follow the margins of the Rio São Francisco, on the chance of meeting some river craft at any of the riverside towns and villages, and by it to descend the river, but learning that in the then rainy season the greater part of the *beira de rio* (riverside) road would be sub-

merged, it became necessary to follow a road to Januaria that passes through the villages of Coração de Jesus and Contendas, both places being a long way to the east of my direction. The distance is much greater, although the river São Francisco makes a big curve to the N.W. and N.E. between Guaicuhy and Januaria.

From the Manga, the road, or rather the track, leads over the flat ground between the river bank and the slopes of the *taboleiros*; it is covered alternately with second-growth forest (*capoeira*) and bush, with occasional patches of swamps and cerrado. Amidst the latter are considerable quantities of *mangabeira* trees. In the woods are some very fine specimens of aloes and blue candelabra cactus.

At three miles from the Manga we passed a cattle herdsman's huts and currals, belonging to a Senhor Major Cypriano Manoel de Madeiros, the most influential man in the district; he owned vast tracts of lands (that extend even to Diamantina), numerous herds of cattle, and many cattle-stations.

In consequence of the great want of small change (there was then no coin between the cobre or dump of forty reis, say a penny, and the paper milreis, say two shillings),⁶ the major had issued small paper notes, in size about two by one and a half inches, bearing his signature, and constituting a value of 200 and 500 reis respectively, say fivepence and one shilling; they were freely accepted and passed as currency in the district, naturally much to the benefit of the major. At the tenth mile we passed Barreiros, a small farmhouse, with plantations of maize, beans, and mandioca, belonging to a negro and his family. All the family were hard at work in their fields and their homestead indicated prosperity.

In spite of all that has been written and said of the indo-

⁶ There is now a nickel currency in Brazil of coins of 100 and 200 reis, and paper notes of 500 reis.

lence of the negro, I find that in the interior of Brazil the free black is *the* working man; the pure negroes are by far the most intelligent and industrious of the inhabitants. I could not possibly wish for a better *camarada* than my black *tropeiro* Chico; he was skilful attentive respectful honest and obliging, but black as coal, and the blacker a negro is, so is he proportionately trustworthy.

The narrow road still followed the immediate margins of the river, through many a slough of mud and morass, and much bramble and bush. There was little forest, and the vegetation was dwarfed and full of vines and thorns. At the River Jiquitahy, nineteen miles from Guaicuhy, there is another *retiro* or cattle-station of the major's.

The river was full, and flowing onwards in a whirling race of turbid yellow water, carrying with it the gaunt limbs and slime-covered trunks of trees and other *débris*. It is about 120 to 150 feet wide, and as the only canoe belonging to the ferryman (the tenant of the *retiro*) was over on the other side of the river, we had no alternative but to wait for him and pass the night where we were.

The tent was pitched just in time to get the baggage under cover, for soon after it was up down came the rain and wind in terrific gusts.

The *retiro* was occupied only by the wife of the *passador* (ferryman) and their two sons. This woman must have been once handsome, for her eyes were fine and her features regular, but what her original colour was, it would be difficult to say, as her skin was now a ghastly jaundiced yellow from the effects of chronic *sezoas* (ague).

January 8.—The tent was so wet from the rain of the night, that its weight became more than a mule could carry, and consequently we had to wait a long time for the sun to partially dry it.

It was ten o'clock before we commenced the passage of the still turbulent river. We had to push through the dense wet bush and trees of the bank to about 600 feet up-stream, above the opposite landing-place on the other side. A narrow path, exceedingly steep and slippery, only fit for the bare prehensile feet of the natives, led down the banks to the water. Bob scrambled down this path to receive the animals that were driven down the slope after him, but the first one that got on the incline slid down the slippery clay with a run into the racing waters, taking Bob with him; fortunately, my man was equal to the occasion, for he was a splendid swimmer; he rose to the surface, grasped the bridle of the horse and headed him for the landing opposite, yet so strong was the current that they appeared bound for the São Francisco, but after a good struggle both landed safely on the opposite bank. The next time we were more cautious; Chico entered the canoe and waited for the animals as we drove them down the path, or rather slide; two were swum across at each time, guided by a man in the canoe. It took us a good hour or more before we landed everything on the other side, and an exciting time it was. In the last voyage (in which I went across myself) a big tree came tearing along, partly submerged in the racing waters of the stream, so much so that we did not notice its approach until close upon us, when it all but capsized the canoe and carried us a long way down-stream, and with difficulty we gained the shore knee-deep in soft mud lined with dense bush.

After leaving the river, for about a mile the track crossed a dismal swamp of coarse matted grass, reeds, and thorny bramble, where the air was almost stifling in the rapid evaporation from the wet soil and jungle. Beyond this marsh a gently rising and undulating cerrado-covered ground extended to Cabeceira, the residence of a small farmer, five

miles from the Jiquitahy ; the farmer had nothing whatever to sell, not even *farinha* or *milho*.

As the river-side road further on was flooded and impassable, there was no alternative but to force our way through the jungle of a pathless cerrado, in order to gain the road to Coração de Jezus. I induced the *roceiro*⁷ to accompany us as a guide.

The next hour was a very unpleasant one; the openings between the trees and bush barely admitted of the passage of the animals, and their collisions with the trees, the bumps, stampedes, and smashes, necessitated a continual reparation of damages, and the air became blue with *diabos*.

After three miles of this weary work, we emerged on to an open grassy plain, that extended for another mile up to the base of the hills of the Serra da Mimosa. It is called a *serra*, but the heights are really the bluffs of the table-lands that enclose the valley of the Rio São Francisco.

The ascent was up a steep stony boulder-strewn bridle-path, through forest and dense thorny bush ; in many places so entangled that we had to hew a way with axe and bill-hook, and the slope was so steep that to sit a saddle was quite out of the question ; the animals slipped and staggered, panted and steamed with perspiration ; but finally, after a sharp struggle, we reached the breezy summit, from whence appeared a grand panorama of the São Francisco, its valley and the surrounding country.

In the distance could be discerned the bluffs of the table-lands on the other side of the Rio São Francisco, stretching away to the south and north in a direction parallel to the highlands we were on. Some of these bluffs were obscured in the grey mists of passing thunder-storms, others showed their ravined surfaces, even in the far distance, clear and dis-

⁷ Small farmer.

tinct in the rays of the afternoon sun. The altitude above the valley was comparatively insignificant (about 400 feet), but we experienced a considerable change in the atmosphere, from the close humid heat of the lowlands of the river-side, to the fresh cool breezes of the campos lands.

We rode on for five miles through the grass, scattered bushes, and ground palms of campos lands, and finally camped by the side of a ravine that extended to the lower plain; down the centre of the gulley trickled and tumbled a stream of pellucid water bordered by numbers of the beautiful fan-leaved Burity palm, and a sward of soft green grass.

The tent was put up and everything made snug for the night, and all went well until about 8 p.m., when we were surprised by a terrific storm of wind and rain; the wind howled and blew with great force, and all hands had to turn out in the driving rain to hold on to the ropes of the tent to save it from being blown away down the steep slopes of the hill. After the squall was over and we turned in all wet and chilled into our damp quarters, it made one think of those people who cannot sleep in strange beds, but necessity is a great teacher of philosophy and of patience.

January 9.—A bright breezy morning, and a keen and refreshing air instilled new life and vigour to a constitution somewhat debilitated by a long residence in the damp humid atmosphere of the low plains of the valley, and even after the damp night I felt an unusual elasticity of spirits that made me keenly enjoy the glorious atmosphere of the campos and look forward to my further travels with pleasure. The wet tent delayed our start until a late hour, when the strong rays of the sun lightened it sufficiently to be packed on the mule.

All that day the track passed along the summits of a ridge of rounded hills, with deep wooded valleys to the right and left. The surface of the ground is in parts a rich red clay, in

others yellow gravel, producing in the clay soil rich succulent grass, interspersed with a little bush, curious dwarfed manicole palms, and many flowers (amongst them the Boca de Sapo⁹), a few scattered trees and occasional thickets of wood, wherever the ground formed a depression or a drainage to the valleys.

The views from some of the ridges are very extensive and varied over the long wooded and well-watered valleys, that run from the distant highlands of the eastern watershed of the Rio São Francisco.

About mid-day another storm of wind, rain, and thunder overtook us; how it does blow on those hilltops, and every gust of the cool fresh wind seems to act upon one like a tonic!

In this district where habitations are so few and far between, and where the country looks so fertile and rich, it is strange to notice the absence of animal life; only a few birds, such as hawks, *bem-te-vis*, and parrots, are the only living things that one sees to give life to what is otherwise truly a charming country, that might be made to produce almost anything. The temperature varied from 80° in the shade at mid-day to 70° at night. At 4.30 p.m. we found ourselves at a cattle station or *retiro*, owned by a Senhor Hypolito Rodrigues Soares. In answer to my inquiries if he could accommodate us for the night, he was good enough to even apologize for the humble accommodation he could offer, but such as it was I was welcome to.

Mine host was a good, but rare, specimen of a ruddy healthy Brazilian countryman; his honest face beamed with health, geniality, and the contentment of an industrious life. I gladly availed myself of his kind offer, especially as the weather looked dark and stormy. The house was rarely clean and neat, and although the walls were only plain, unwhitewashed

⁹ *Callopisma*, sp.

adobe ; it possessed well-made if rather rough doors, shuttered windows, and a tiled roof. The furniture of the interior consisted of little more than bare tables and benches on a well-swept earthen floor.

The wife duly presented herself, a healthy-looking woman of about forty years of age ; and like her house, she also was very neat in her appearance. When I complimented her on her housewifery, I learned at once the secret of such an unusual thrift, for she had been brought up amongst the *ingleses* of the mines of Morro Velho. She said she liked the English, and that they knew how to *passar bem* (to live well). These good people gave me as good a dinner as the country provides, and a good clean shake-down.

When a traveller in Brazil meets occasionally such good people as these, he must indeed be hard of heart if he does not keenly appreciate their kindly natures, and remember with gratitude, not perhaps so much their kind hospitality as the pleasure and satisfaction derived from meeting "a good fellow."

My host stated that he was fairly prosperous, he owned the land, and his cattle were increasing and multiplying, but, as he said, "there is all my wealth in kind, and it is difficult to realize a fair value for it ; I cannot sell more than a limited number in the nearest village ; even in Diamantina or Ouro Preto I could not dispose of a large number for what I might consider a remunerative price." This is the same story all over the distant interior of Brazil, there is no market for any production in excess of local demands, except by a long weary and expensive journey to the coast.

We got away early the next morning in spite of the wind and rain that swept over these highlands with such force that the rain seemed almost like hail !

The road still followed the summits of a slightly winding

range of hills trending almost due east. The ground is very gravelly and well-drained by the great and deep valleys of forests to the right and left. In all directions appear hills and valleys, the latter being evidently denudations from the high plateau we were travelling upon. In the afternoon we passed "Morro do Frade," an old deserted fazenda, a grand old house belonging to the past times of enterprise and mining prosperity.

There were probably so many owners of this place, that not one of them could work the estate, even if he had the means to do so, without all the other non-working heirs claiming an extravagant share of the results of his industry ; thus it remains in Chancery, like hundreds of other estates in Brazil in similar circumstances, an existing reproach to the law of forced division of property amongst the next of kin, whereby the capital absolutely necessary for the working of a large estate is divided amongst often many heirs, and frittered away by them in aimless lives.

Late in the afternoon we descended from the elevated lands to a low narrow valley on the left, where we found a rather imposing-looking modern fazenda, consisting of a two-storied building, luxurious in painted doors and frames, whitewashed walls, and above all, glazed windows. I thought I was in luck, and seeing a well-to-do-looking man in the entrance, I rode towards him, and tendered the usual complimentary greetings, to which he surlily replied gruff answers, and retained his lounging attitude, blankly staring at me. I was rather non-plussed, and thought to myself, Well, my friend, you might at least invite me to dismount ; but, alas ! he still remained dormant, gazing at me abstractedly. A broad hint was given him by inquiring if he could tell me where any accommodation could be obtained for the night. "*Pois não*" (certainly), said he, "that rancho there by the gate is at your

service. I looked in the direction indicated, and perceived an open shed under which were two bullock-carts, and sundry pigs that were revelling in the dry dust of the floor. I went my way with "kindly feelings" very much discounted; but at the sight of the wet sloppy ground, and overhead at driving masses of dark clouds and all the evidences of a wet night, there remained evidently but a Hobson's choice to accept the kind offer and turn out the pigs, or put up the tent. One comfort was the dryness of the shelter, and I soon found that very snug quarters could be established in one of the bullock-carts, and the wet cold breezy ride over the hill-tops had developed the appetite of an ostrich, that would enable any one to appreciate the roughest of fares; but it was 8 p.m. before the beans were ready.

In the meantime, my apathetic and uncharitable host, apparently unable any longer to resist his curiosity as to whom, or what I might be, had lounged his way to the shed, where he sat himself down, and after a few impertinent questions, stolidly persistently and silently gazed at me, replying only in grunts and monosyllables to my observations, that I must confess were not always to his satisfaction. Ah! Senhor Malaquio Gonçalves da Fonseca, fortunately for travellers in Brazil, there are not many Brazilians like you.

Despite the continual skirmishes under my shake-down in the cart between Feroz and the pigs, who were anxious to return to their domicile, I duly appreciated the quiet repose and comfort of the cart of Senhor Malaquio, that at least served as a slight protection from the squalls of rain that blew throughout the night.

January 11.—It became necessary next morning to cross a formidable little torrent in front of the fazenda, where the road leaves the valley and ascends the hills on the further side. The stream was only about forty feet wide and three feet

deep, but it was a mass of foaming water that did not at all look inviting.

For two milreis, an old grey-haired black from the fazenda, was induced to cross the stream and fasten a line of *cipos* (lianas) to the trees of the opposite bank, so as to give greater security in crossing. The old fellow had the greatest difficulty to get over, but eventually succeeded ; and with his aid all the baggage was carried over on the men's heads, and the animals hauled across ; then ensued a long and toilsome ascent up a rough boulder and bush-obstructed path that severely tried my wretched animals.

On arriving at the summit, we found ourselves on a gently undulating tableland of grass and small scrub, extending apparently for miles to the north and east.

On the road further on we passed a large and beautiful lake of crystal water, abounding with aquatic birds and fringed with a few *Burity* and other palms. I shot one of the birds, a *marecca* or small duck. Beyond the lake the ground is very sandy and heavy, and very laborious for the animals to travel on. It must have been a trying road in the dry weather, for it was bad enough, even soddened as it was with the rains ; this arid soil extends about ten miles, showing only the hardy orchard-like vegetation of the *cerrados*.

We were evidently again on a wide ridge, for through the openings between the trees, appeared valleys to the right and left, and hills upon hills beyond them. The only house passed on the road was that of the Fazenda de Sta. Tereza, perched on a considerable elevation away from the track, and ten miles from our last night's camp.

Coração de Jezus was distant yet six miles. Now the vegetation changed to thick cerrado and forest, extending over very undulating and hilly ground ; the road, littered with blocks of stone, was obstructed by tree roots and holes that

made the horses stumble and fall continually, and express their weariness in many a sigh and groan, and to indicate by their panting sides an approaching collapse of their powers,—yet not a distant glimpse of the village could be obtained to encourage us, until at last an abrupt bend of the road showed us the village down in the centre of a low wide valley.

The descent down a path that had become the bed of a torrent, was steep and difficult, and on the slippery clay and amongst boulders of clay-slate the animals continually slipped and fell, and otherwise came to grief; fortunately every fall landed them nearer their destination. As we crossed the little *praca* or square of the village, heads appeared at windows, and lounging apathetic loafers at the village *renda* awoke to all the enjoyment of something new to look at and talk about.

An empty house was soon obtained for quarters, and there in due time appeared all the idlers, they lounged against the doorpost, lounged in the window openings, lounged against each other, or anything that would offer them support; after some minutes of good stolid hard staring and liberal expectoration, they plied me with the usual questions. Where did I come from, or was going to? What was my business? Was I a *capitão*, or a *coronel*, or a *major*, or a *doutor*? What was my income? What had I to sell? &c., &c. Visitors like these do not come with any intention of paying a complimentary visit, but simply to gratify their curiosity, in the same way as they would gaze at a travelling menagerie, or anything else strange or curious. Yet it is not to be wondered at, for in these out-of-the-way towns and villages there is nothing to break the dull monotony of the daily life, the outside world, its busy life and eventful incidents, sends no echo of its strife to these dormant communities, newspapers only occasionally, and books more rarely, find their way to such

places as Coração de Jesus, although it has, like every other village, its public school, where the silence of the mid-day sun-lit street is broken by the yelling intonation of the children repeating their lessons.

There was no other remedy for getting rid of my inquisitive visitors than to go for a walk. I left them discussing all my points, the same as they would those of a horse.

My animals were in a wretched condition, and inquiries failed to elicit any means of reinforcing the troop either by exchange, hire, or purchase of other animals ; neither could any provisions be obtained in the shape of beans, *farinha*, or dried beef, nothing was to be had in this thriftless community. The next day, consequently, had to be wasted in resting the horses, that were in a far worse plight than the little mule. Fortunately the stores were sufficient to last yet a few days more.

I took a stroll to the summit of a little knoll at one end of the village, where is the usual wooden village-cross, embellished with all the implements of the Passion, the ladder, thorns, spear, sponge, hammer, nails, the chanticleer, &c. From this elevation I obtained a good view of the—at a distance—neat-looking village, that consists of a large square, overgrown with grass and shrubs, and surrounded by whitewashed red-tiled adobe houses ; one end of the square is occupied by a poor little rickety church and the other by the house of the padre. Around the village is an amphitheatre of verdant hills, showing many *roças* or clearings in the fine forest that covers the ground. The effect of the late rains produced an exceptionally bright and brilliant appearance, the grass of the square was a vivid green, the *roças* showed alternately the pale-greens of the young crops of maize and sugar-cane, and the darker verdure of mandioca and beans ; the forest was radiant in huge flowering trees, gold, purple and crimson, and the

gleaming white walls of the houses, their red-tiled roofs and the gaudy colours of doors and windows, made a brilliant if rather harsh addition to the combination of lustrous colours of the landscape that glowed and glistened in the fierce sunlight. The heaven was an unusually dark azure (only seen after rainy weather), great masses of white-edged grey cumuli clouds swept along, softening with their passing shades the bright tints and minutely-detailed features of the scene. Yet, bright as the village appeared, there hung over it a pall of silence, only broken by the sound of whirring *cicadas*, and



The village of Coração de Jesus.

the occasional twitter or screams of birds near by. Not a sound arose from the village, not a soul was visible in its grass-grown *praca*, no life gave animation to the picture, the whole community appeared to sleep. Even the sight of the houses in the prevailing stillness and quietude seemed to make the scene appear all the more depressing, and cause one to rebel against a feeling of oppression engendered by such stagnant humanity. Yet, despite its surrounding rich woodlands and rich soil and its 150 door and window houses, Coração de Jezus is situated so far from any remunerative

market, that the value of all its surplus productions must necessarily become greatly absorbed in the cost and labour of transport, and one can consequently realize how it is that such hopeless listless lives must necessarily create such apathetic somnolent people. It is a comparatively modern settlement, not more than fifty years old, and was never, like the older towns and villages, fostered by neighbouring mining operations.

CHAPTER XIII.

FROM CORAÇÃO DE JEZUS TO CONTENDAS.

Departure—Gold and iron district—On the road—The luxury of a bridge—A gang of gypsies—A ruffianly-looking crowd—Unexpected civility—How to escape with my troop and baggage—Troublesome ladies—Bob is cursed—A new district—The capitão of the gypsies and his prosperity—Hospitality of the capitão—Feroz is useful—Cheap bargains—Valuable and happy changes in my troop—The road—The flooded impassable Rio Pacuhy—A new settlement—A novelty in Minas—Fellow-travellers—A delay—The passage—The road again—A camping out—Sunset—Disturbers of the night—A missing mule—Rough travelling—Arrive at Contendas—A noisy church festival—A not day—Inquisitive visitors—I beat a retreat—The venda—A stroll through the village—An old new church—Brazilian limpness—Poverty of the inhabitants—Village schools—Evening at Contendas.



A Brazilian gypsy.

January 13.—By some means or other, José had succeeded in getting yet a little more “go” into our “Rozinantes,” that enabled us to make a start about 9 a m.

After leaving Coração de Jezus, the track passes over the hills surrounding the village by a series of ascents and descents. The soil, especially in the hollows, is a rich red earth, capable of growing almost anything.¹ The wooded valleys and cerrado or forest-covered hill-tops abound in *perdis*, the Brazilian par-

¹ This soil is very similar in its constituent elements to the red earth of the coffee regions of Rio de Janeiro, and Professor Agassiz’s “glacial drift.”

tridge, whose melancholy notes we repeatedly heard far and near.

The district is reported to be auriferous, for gold has been discovered in several localities, but has never been worked; possibly a good prospector might here find a virgin placer; iron also is found in abundance, yet the people pay enormous prices for the imported metal. Now for a long but pleasant ride over hill and dale by a fairly good road (its merits in no way due to man, as it is merely a track, worn by the hoofs of troops of mules and horses), yet as it follows the ridges of the hills, and the soil is firm and naturally drained, we had none of the sloughs of mud one so often finds in the country roads of Brazil.

At the Rio Pequeno an excellent bridge crosses the stream. What a blessing! It is necessary to travel in a bridgeless country in a rainy season, to enable one to thoroughly appreciate the convenience of a bridge when one is unexpectedly met with.

On a rising ground on the opposite side of the river appeared a few houses and a number of white tents. Curious to find out what camp it was, I rode up to the encampment where I found myself surrounded by a number of the most murderous-looking fellows ever seen off the stage of a theatre. They were Ciganos (Brazilian gypsies). Most of them were really handsome fellows, with dark olive complexions, bright keen black eyes, good features, long glossy black hair hanging in greasy ringlets that reached to their shoulders; some were dressed in tanned deer-skin suits, others in the ordinary coarse cotton costume of the country. All were well armed with long pistols (*garouches*); others carried in addition carbines, knives, and sabres.

I felt I had ridden as it were into a nest of hornets, and that diplomacy must be exercised to get safely away with my animals and effects.

A comfortably-clad little old gentleman now came towards me, making as he advanced, hat in hand, a series of most profound bows. He addressed me as the most illustrious and most excellent Senhor Stranger, and pointing to the best of the houses, informed me it was the poor abode of the humble servant of the most illustrious senhor (meaning myself), and, laying his hand on the bridle of the mule, led me to his door, where, with exaggerated courtesy, he held my stirrup, and invited me to dismount and enter. My troop arriving at the moment, the animal was consigned to Chico, who took occasion to whisper, "*Esta gente são ciganos, toma cuidado*" (these people are gypsies, take care). My effusively affectionate host, now bowed me into a small room, rather neatly furnished, and fairly clean, and informed me that he was the *capitão* of the tribe, but, being now an old man, he had given up wandering, and had finally settled here, where some of the *meninos* (boys) had come to pay him a visit.

The old gentleman then produced a bottle of Bass' beer and some biscuits, and hoped that I would not mind waiting a little for dinner, and also that I would stay with him for the night. This was all doubtless very pleasant, but such sudden and unprovoked affection, and the thoughts of the cut-throat-looking individuals who had remained outside, created certain elements of distrust. A happy idea, however, occurred to me. I expressed my satisfaction in meeting such a distinguished *cavalheiro* in these wilds, and further hoped that I might be able to congratulate myself in having an opportunity of purchasing some mules. This was no sooner said than the old man's eyes sparkled with pleasure at the prospect of a little *negocio* (business), and it was perceptible that the right chord had been struck. He said I should see such mules to-morrow morning as had never been seen before, &c., and promised to have them ready for my inspection early in the

morning. Then, with many bows on each side, I withdrew, and gave directions to have the tent put up, all the baggage stowed in it, and Feroz chained to the tent pole.

The female part of the tribe now paid me a visit—good-looking young women, and old withered beldames. Soon requests were made for a little sugar, a little coffee, beans, dried beef, *farinha*, salt pork, salt, or anything else I had to part with. At first small quantities of the various goods asked for were given, until the inquiries came so fast and pressing that my stores were rapidly diminishing, and finally my man Bob caught one old lady behind his back helping herself to our scanty store of *farinha*. The prospect of a *farinha*-less journey was sufficient to disturb Bob's equanimity, and he peremptorily ordered the old lady away. She drew back, and raising her skinny arm, with forefinger pointed skywards, cursed him poetically and flowingly in a sing-song voice, and prayed that he might for ever be in want of *farinha* all his days upon the earth.

Fortunately the old man now appeared, and drove off the women like a flock of sheep, and with a bow and a "*com licença meo senhor*" (with permission, sir), he seated himself for a chat. He told me that his *meninos* had just arrived from a long journey from São Paulo, where they had been purchasing mules, and were then taking them to Bahia for sale, or at any place on the way.

It is curious how these Romany gypsies found their way originally to Brazil, but it is well known that in the old days of the slave-trade, the business of buying and selling the black ivory was largely in their hands, and in Rio de Janeiro many of them made considerable fortunes. In the interior they are known nominally as horse-dealers, but horse-stealers would probably be more correct. They are much feared by the country people as an uncanny sort of folk.

The tribe consisted of about fifty men and women, and several children. Many of the men were sons or other relatives of the old man, whom they treated with the greatest deference.

The surrounding district had only been populated within the last twenty years, and the present inhabitants were consequently comparatively new settlers; the climate is remarkably healthy, and the soil excellent, but hands are wanted to work, for the *meninos* refuse to follow any other but their nomadic life. Mine host stated that he had found gold in the neighbourhood, but had not attempted any further prospecting operations, as the little help he could collect was all required for cultivating the land and attending to his herds of cattle to obtain a means of daily subsistence.

“Do you mean to say, then, that you consume all your produce?”

“Not quite all, for the surplus is exchanged for cattle, salt, clothes, gunpowder, or even the hire of labourers.”

Although the old gentleman repeatedly laid great stress upon his state of poverty, there was nevertheless a certain well-to-do air of prosperity about his farm that did not tend to confirm his protestations. Those large cattle currals were evidently constructed for large herds; the bridge over the river he had built at his own cost; a number of slaves were moving about the premises; and considerable out-buildings, bullock-carts, &c., all testified to at least a moderate success. His story of the gold was probably only one of the usual tales of imagination or exaggeration that one hears in almost any day's travel in Minas Geraes, and often proves to be nothing more than grains of mica glittering on river rocks. Eventually, with many apologies for a poor man's house and resources, he invited me to a good dinner of freshly-caught river fish, roast kid, sweet potatoes, yams, &c., and Bordeaux

wine. Really these gypsies are not such terrible fellows. Several of his sons, fine strapping fellows, who joined the festive board, were silent partakers of the feast, for they only replied in monosyllables to my queries and observations; they were either shy or morose, or very hungry.

When I eventually withdrew for the night to my tent, I there found Bob and José, and the dog Feroz (the latter in a savage mood); the men told me that the gypsies were prowling around outside, and had made one or two efforts to seize anything portable by inserting their arms under the canvas. Fortunately for them, the limit of the dog's chain would not permit of his reaching them, otherwise there would have been a bite, and certainly trouble to follow.

During the night the dog disturbed us on several occasions by the noise of his savage growls, that at least served to keep unwelcome visitors at a distance and preserve a desirable peace.

In the early morning the old gentleman appeared with forty or fifty mules, some of them being really very fine animals. I selected two strong active-looking ones, and then commenced the long weary haggling over the price. An excessive value was of course asked, and an equally inferior value was offered, a long time being consumed in endeavouring to make the extremes meet. Even the pantomime of having my own animals loaded and started had to be performed before we finally concluded our bargains, which were, very much to my surprise and satisfaction, very reasonable. I gave 100 milreis (about £10) and my two almost valueless broken-down hacks for two excellent mules. The lowness of the price was very suggestive of their being stolen property.

In making this exchange I knew I incurred a risk of having the animals claimed on the road by one or more of

their probably rightful owners; yet, if it had not been effected, there remained but a poor alternative of not getting away in peace, and of my own animals very soon finally collapsing altogether.

Up to the last, the old gentleman maintained his extravagant courtesy, forming such a contrast to the reserved or rather morose manners of the other members of the tribe; altogether my reminiscences of these people cannot be otherwise than agreeable.

As we jogged along with the reinforcements it was quite a treat to miss the repeated stoppages, stumblings, and breakdowns of my last troop, and a pleasure to see the new purchases march along with a steady swing and a palpable air of business about them that showed they understood their work, knew what they had to do, and were resolved to do it; we got over the ground at double the pace of the horses.

Feroz even seemed to express his satisfaction in loud barks and gambols, before he dashed away ahead at full speed for his *siesta*. I must not fail to mention a peculiarity of the dog. In camping out at night or in strange places he is ever alert, watchful, and never attempts to sleep. Such sleep as he requires he obtains in a rather singular way. During the day, he secures every opportunity for a snooze; for example, when we are travelling, he notices the track we are following and runs ahead of us at his fastest pace, until meeting with any doubtful direction or a branch road, he lays down and sleeps until we arrive, when he repeats again his manœuvre as soon as he perceives the question settled by our continuing on one, or other, of the alternative tracks. He comprehended many sentences in Portuguese, but not in English, and most faithfully carried out orders.

After six miles of houseless grass-covered downs and

wooded valleys, we arrived at the flooded and impassable Rio Pacuhy. Near the banks were piles of baggage and the grazing mules of a mule troop, waiting for the waters to subside. The waters were rapidly falling, and hopes entertained of being able to cross in a few hours. On the opposite side of the stream appeared a group of new houses and huts, and the charred tree-stumps of a new clearing, quite a novel sight in inland Brazil, where improvements and progress make such reluctant strides.

The Rio Pacuhy is a deep fast-flowing stream of yellow muddy water, 100 feet wide, tumbling over a shelf of rocks twelve feet high, that crosses the stream about fifty yards above the fording place.

My fellow-travellers gave me an acceptable cup of excellent coffee, served up in a small calabash; they told me they were proceeding from Ouro Preto to Januaria, *viâ* Contendas, a village that I had expected to reach that day, but as it was sixteen miles away, the hope was very small. The river lowered so quickly that at 2 p.m. it was sufficiently shallow to permit, with difficulty, the passage of the troop.

On reaching the other side I rode up to the fazenda in quest of a glass of milk, willingly supplied by the proprietor, although on our approach all his womenkind had retreated out of sight.

From the river, the road passes over great undulating hills for eight long miles from the Pacuhy, and late in the afternoon we found ourselves on a high tableland and yet eight miles from Contendas.

We camped by the side of a picturesque lake, surrounded by clumps of the graceful *Burityrana* palm, and wide open far-extending campos-lands.

As Phœbus retired behind the distant mantling purple clouds of coming night, the heavens glowed with those

wondrous opal tints of a tropical sunset ; and long glancing rays of golden light and of dark soft warm shades fell athwart the darkening earth across the open plain of savannahs and woods, giving to the landscape a softening effect that is so absent in the harsh glare of the mid-day sun.

As the shades of evening fell around us, a number of frogs commenced a concert in the waters of the lake ; by their noise, I recognized them as the "cooper" frog, so called from the resemblance of their croak to the sounds of a cooper's workshop ; these disturbers of the night were evidently working overtime on a large order for barrels, for the clatter was incessant and loud. Later on, a full moon spread its refulgent light over the wide expanse of moorland, lighting up the distant hills and glinting with flickering lights on the foliage of the trees of the campos, and on the fluttering leaves of the palms gently swayed by the light breezes of the night. The men lay extended on the hides by the camp-fire, telling their stories of each other's "*terra*"² ; an occasional snort from the mules indicated their presence in the neighbourhood. The dew was heavy, and formed long irregular lines of light fleecy vapour a few feet above the ground ; the air was so moisture-laden that particles of humidity hung suspended from one's beard like hoar frost, and we rolled around us our rugs and *ponchos* as a welcome protection from the damp chilly atmosphere.

Meanwhile those frogs appear to have put on an extra number of hands, for the clatter and noise is terrific and astounding ; but there is no remedy but to endure it patiently, like many other greater evil. Finally, a last pipe, a last cup of coffee, a roll up in rug and macintosh and turn in "all

² *Minha terra* is an expression commonly used by the country people, and does not imply "my country"—its real meaning—so much as the district or place of abode of the speaker.

standing," on a hide on the ground by the fire, and kind sleep excludes even the "coopers" from all notice.

The next morning, one of the mules was missing, and although all of them had been hobbled, yet this mule had succeeded in returning quite two miles on the road we had travelled on the previous day. It was ten o'clock before the runaway was brought in.

Soon after starting, the track entered a thick cerrado, much obstructed by trees, quagmires, and roots. On one occasion one of the mules succeeded in jamming himself between two trees, where he plunged and kicked to such an extent that the cords gave way, and the contents of the load were freely distributed on the ground by the help of his heels. The commotion caused a stampede of the others into the bush in various directions; such crashes and bumpings of the packs against the trees, and such hearty anathemas of the men. After the troop were at last in steady marching order, a little farther on another mule slipped, and rolled, cargo and all, down a precipitous descent. At the bottom he picked himself up, gave a snort or two of disgust, and trotted on again.

Early in the afternoon we arrived at the Arraial of Contendas, a small hamlet reported to contain 1000 inhabitants. The houses were built on the summit of a round hill, almost surrounded by a stream of water flowing by its base.

It was evidently festival time, for the clack-clack of the cracked bell of the church, the beating of a drum, explosions of rockets and bombs, and a generally confused noise, indicated that the *povo* (people) were celebrating the honours of a saint. The place was filled with people, both from the village itself and from the neighbourhood, and from districts far away.

The occasion was the *Novennas* (nine days' celebration) of the Festival of Saint Sebastian.

Accommodation was obtained in an empty room adjoining the venda.

The heat of the day had been very great, and I felt tired, and soiled with travel, and glad to appreciate a rest and a little shade, but indoors the thermometer registered 92°, a remarkably exceptional heat, and not a breath of air was perceptible on the summit of the hill, and the sun poured its burning rays into the dust-covered and dust-begrimed interior of my quarters, ever innocent of broom, or soap and water. In the yard at the rear, cattle were lowing, next door women were scolding, and spoiled children screaming for impossibilities. The heat, noise, and surrounding dust and dirt, and a personal feeling of grubbiness, were all conducive to headache.

Suddenly the light of the doorway is darkened by a lounging figure, who reclines gently against the doorpost, limp as a bundle of wet clothes—(Ah! well I know them, here they come)—another, and yet another comes, and leans against any convenient corner, or against each other, and soon there is a little crowd around the door, all staring, and openly discussing my appearance. I hear the following criticism of myself: Is he the foreigner? He is not very fat, or very pretty, or very big. I wonder what he eats? He is very rich; all those boxes of his are full of money. Of course all the foreigners are rich. The English manufacture all the money in the world; I wish I was an Englishman. I don't; they say they are all pagans. What is this foreigner? Oh! a pedlar, of course. No, I think he is a captain sent by the *governo* to collect recruits. At this latter suggestion there is a movement, and a few of my beholders think it advisable to go away. I ask my visitors if they want anything.

"No," they apathetically reply.

"What are you waiting for, then?"

"Nothing."

"What did you come here for?"

"Nothing."

"Will you go away, then?"

No reply is made to this request, but a greater concentration of hard staring ensues, with mouths open, drooping jaws, and bodies in every stage of limpness.

At this moment my man Chico arrives. Even he seems to see nothing extraordinary in my crowded doorway; he even courteously requests permission to pass in. They open their odorous ranks, and close up again after he had passed. My visitors are black, brown and whitey brown, clad in hats of straw, or leather, or felt; coats of the substantial home-made cotton cloth of Minas, plain white coloured or striped; shirts and trousers of the same material; their feet are bare, and some are ornamented with huge iron rowelled spurs, and all of them carry knives, either large or small. The only remedy of freeing myself from my obtrusive visitors, is to go outside and enter the *venda* next door, where the storekeeper is doing an active trade in pennyworths (40 reis) of *cachaça* and tobacco. His store showed the usually heterogeneous collection of goods commonly found in these country *vendas*, where the rank odour of *bacalhao* (dried Newfoundland cod) outperfumes everything. My late visitors follow me into the shop, for yet another gaze at the "Inglez," making a few purchases. Finally mine host, having disposed of every possible pennyworth of *cachaça* to his customers, suggests that we take a stroll through the village.

In these Brazilian villages it is rare that there is not some musician of wind or stringed instruments, but in Contendas, even on the festival of its patron saint, the only instrument

was the drum. That is certainly not at all pleasing for solo performances. Its sounds saluted me on my arrival in the village, and all the evening it was most energetically pounded, accompanied occasionally by the banging of rockets, for the *matuto* (countryman) dearly loves noise and colour.

The church, St. Anna de Contendas, is an old half-built, whitewashed edifice of adobe brick walls and red-tiled roof. Of door and window-frames, there are none ; even the walls had never been properly finished, and yet it looks old and weather-worn. Around the church are a few ruinous houses, and lower down the hill are two parallel streets, that extend around the base of the hill. The whole place is dull bare dirty poverty-stricken and wretched in the extreme ; a most forlorn and woebegone village, wherein a residence would doubtless have the same effect on a white man as solitary confinement is reported to have on prisoners.

The people were listlessly wandering about the streets, or lounging in all their limpness against doors or windows. In all Brazilian towns, even in the cities of the coast, the first thing that strikes a new arrival from Europe is the number of people seen everywhere lounging or reclining in every attitude of laziness, as though their bones had been extracted from their bodies. It is this vicious habit of doing nothing and wasting time, that makes the country so far behind its productive capacities.

In this little town of 1000 inhabitants it would appear a mystery how the people obtain even their simple and few requirements, were it not that almost every household has its *roça* (field of vegetables) in the near neighbourhood, a pig and fowls in the yard, or more commonly the street, where they are left to get their own living ; and what gaunt spectres of long-legged fowls and haggard bony pigs one sees, each one so fiercely hungry that it will eat anything, no

matter how unfit or disgusting. Nails, stones, anvils, &c., one would not object to their swallowing, as that is plain clean food, but, as Captain Burton remarks, Brazilian swine are nastier than the Bazar pig of India.

My companion told me that there was no one in the neighbourhood of any importance or wealth ; that the people were extremely lazy, and consequently poor. Money was very scarce, and even on "fair days " most of the goods were bartered for other goods. Land is exceedingly cheap, and in many places the soil is excellent.

Fortunately the Government have established schools in almost every village in the empire, and this must necessarily defer the degeneration of the race or races so evidently taking place ; otherwise a few more generations would see this people more degraded than the veriest savage, for he at least reaps the physical benefits derived from the exercise of his free life of the woods.

I again went out in the evening, accompanied by my neighbour. In the meanwhile the temperature had changed from the great heat of the day to that of a pleasant balmy evening.

In the church, a service was being performed by an old priest, the congregation of women chanting the responses in high-pitched cracked nasal notes. There was no want of deference to the service either by the women, or by the men crowding the doorway openings. It is much to be regretted that the priests will not exercise the power they have over these people in a more beneficial and practical manner. Unfortunately these spiritual fathers are, as a class, the most viciously disposed and immoral of any in the country.

After the short service there followed more drum-beating, bell-ringing, and explosions of rockets ; and after the hideous

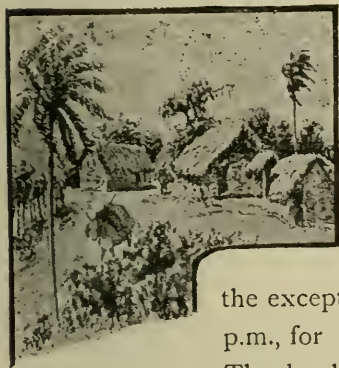
din had somewhat subsided, there ensued an auction of the petty gifts of the congregation to the saint, such as cakes, eggs, cheese, fruit, &c. The priest called out the bids in the same drawling tones and manner in which he had conducted the service ; the prices amounted to a very few coppers, and as the auction was lagging, my companion insisted on bidding for me, and I eventually found myself the possessor of some scores of eggs, several cakes, cheeses and fowls.

As the evening wore on, the sounds of the *batúque* were heard in many of the houses. This is practically the only recreation of the women in which they and the men really do work hard ; all night long was heard their high nasal notes, the stamping and shuffling of feet, and the clapping of hands.

CHAPTER XIV.

FROM CONTENDAS TO JANUARIA.

Departure from Contendas—A change in the character of the country—Abundant animal life—A rattlesnake—A leper—Leprosy not uncommon in Brazil—The Rio Mangahy—Camping out in the bush—Indolence of the inhabitants—Barrerinhos village—A possible paradise—A quiet night—An elevated track on the road—In the forest—Bom Successo—A boulder-strewn descent—A dismal abode of indolence and squalor—A rough and wet night of it—A swampy land—Pedras de Maria da Cruz and the São Francisco again—Pillow lace—On to Januaria—First view of the city—Arrival at Januaria—Meet with comrades—The barca of the river—The boatmen—In the streets of Januaria—A deputation—More fever.



January 16.—An early start was made this morning, with the mules all newly shod, harness all repaired, and the stock of provisions augmented. We travelled from early morning until late in the afternoon, with

the exception of a halt from mid-day until 2 p.m., for breakfast and to rest the animals.

The land is considerably different to what we had passed through during the past few days. The previous longrolling hills and high tablelands gave place to lower ground, freely intersected by small streams, separated by undulations of slight elevation ; the cerrado and geraes of the past few days

were more rarely met with, forest-land became more general, and small road-side habitations and farms more numerous. On one of the hill-tops or ridges, covered with grass and scrub, appeared several huge boulders of hard primitive rock, weather-worn and covered with lichen and mosses, forming picturesque groups amongst the beautiful ground-palms, bush, and grass of the campos. Bird-life is also more plentiful, and the country-side resounds with the peculiar cat-like screams of numerous hawks, with the harsh screech of green parrots, the chattering of flocks of parroquets, the melodious notes of the common brown and yellow canaries, *bém-te-vis*, and the merry *João de Barro*, and the loud yelping-gobbling of serin-hemas. The tracks of the *mateiro* or small forest-deer (the *guatepita* of Azara) are not uncommon, and numerous *armadillo* holes in the roads of the cerrados make riding with caution a necessity.

As we trudged onwards, the mules were seen to suddenly swerve or shy at something by the side of the road. I rode my mule towards the spot, but he resisted all my efforts to make him approach near. Chico dismounted, and at once perceived a rattlesnake¹ in the grass, at the same time was heard the whirr of the rattle, my man drew his *garouche* (or long pistol), and fired; the snake, previously coiled up in a sunny spot in the grass, extended its quivering body in its death-throes, for the shot had smashed the head. The reptile was nearly five feet in length; I secured the rattle containing eight rings, as a trophy.

These snakes are very sluggish in their movements, and can be easily avoided, as they are always good enough to give notice of their approach or attack by previously sounding their rattle. The rattle is composed of a series of overlapping

¹ The *boiquira* or rattle-snake of Mexico, Guiana, and Brazil. (*Crotalus horridus*.)

rings or thin horny cells of a remarkably light substance, as light as a quill, brownish-grey and semi-transparent. The articulation of these portions being very loose, they rustle against each other when smartly vibrated, and hence the whirring noise. This snake rarely if ever ascends trees; it lies in wait for its prey on the ground, preferring the neighbourhood of rock and swamp. The effects of their bite are admitted to be almost always attended with fatal results, especially if an artery or vein is perforated.

Having ridden far ahead of my troop, I had dismounted in the pleasant shade of a wood to wait for their appearance; and whilst gazing through the vista of trees and underwood, I suddenly heard a voice behind me saying, "*Esmolas, por amor de Deos*" (charity, for the love of God), and on turning I beheld a terrible sight. In a semi-crouching attitude, extending a ghastly withered arm, an old negress had approached unheard by me, to within a few paces; she was barely covered with a few old rags, and in an extremely advanced stage of leprosy. As she stood crouching and leaning on a staff, a palsied skinny hand outstretched for alms, her face and body covered with the repulsive effects of the disease, never was seen anything so ghoulish. Hastily bestowing a few coppers on the poor creature, I went hurriedly away from the sickening spectacle.

This highly-contagious disease is more prevalent in the interior of Brazil than is commonly supposed. In some of the *vendas* of the villages, it is not at all unusual to find charcoal braziers provided for the purpose of heating copper coins received from suspected customers, so as to destroy a possibility of transmitting the disease.

The camp that day was pitched amidst the tall grass and bush of the road-side, surrounded by thick cerrado, on the further side of a stream known as the Mangahy, fortunately

not in flood. The locality is considered to be sixteen or twenty miles from Contendas, but in view of the time we had been travelling, and the cramped and stiff feeling arising from an extra long ride, it appeared to be quite twenty-five or twenty-eight miles.

Although twenty-five miles is an easy journey for a horseman unencumbered with baggage to accomplish in a day, it must be remembered that our pace had to be regulated by the baggage animals and the drivers on foot, and much time is consumed in overcoming constantly-recurring obstacles and difficulties in these rough bridle-paths, such as the animals stampeding into the bush, consequent damages to harness and cargo, difficult fords of streams, and obstructions of the road, such as fallen trees, quagmires, &c.

The camping ground was a very snakey-looking place, and as I beat down the grass and spread a hide on the ground for a bed, I could not but help thinking of some of the choice, but undesirable venomous reptiles that Brazil can produce. However, a very heavy dew was our only inconvenience, while the silence of the night was often broken by the strange sounds of nocturnal birds and frogs, and the one and many weird noises of the darkness.

January 17.—A short journey of only twelve miles was made this day as far as Barrerinhos, as we were there informed that no place for pasture or camping existed within sixteen miles beyond.

During the day's ride, at every two miles or so, were passed many little farms, wretched ruinous hovels and wild weed-overgrown clearings, evidencing the improvident and indolent habits of the people. It is to a stranger, painful to witness the dull listless life of the inhabitants of this district; the female portion rarely go beyond their decrepit bird-cage-like houses except to the neighbouring *roça*, where they often

work harder than the men. The greater part of the men's time is taken up in visiting their neighbours for incredible long chats about nothing, and in smoking, sleeping, or a stroll in the woods or campos with a gun, where they shoot anything eatable, regardless of season. This is one, if not the chief reason, why the inhabited portions of Brazil are comparatively so deficient of game.

Barrerinhos is a small cluster of wattle and dab houses (each householder possessing a *roça* close by), situated in the hollow of a considerable valley at the junction of two streams. The surrounding hills, with grass-covered summits and wooded slopes, showed numerous old and new clearings, enclosed by the tall straight trunks of the trees of the forest, pale grey buff and light brown, standing out clear and defined against the darkness of the shady interior of the woods, under the canopy of dark or brilliant foliage overhead. The dull dusty grass-grown street of the little village, with gaunt pigs and fowls searching for a precarious living, a broken-down bullock-cart, dilapidated fences, the wretched group of huts and houses, each one a chaos of dust, hides, farming implements, benches, and horse and bullock gear—listless women and lounging yawning men—a brilliant hot sunlight—stillness only disturbed by the hum of insects, that made the sun feel yet hotter—all created a scene of picturesque laziness, discomfort, and *ennui*; and yet picture to oneself what the same place might be if inhabited by an industrious thrifty race;—neat homesteads imbedded in little gardens of tropical produce and flowers; the roads to the nearest towns improved, substantial farm waggons to transport to market the vegetable wealth that can so easily be grown in this rich fertile valley. But for these people, roads, railways, and improved communications are of no earthly benefit; they would still vegetate as of old and continue their dissolute improvident habits. The

present cry in Brazil is for "*braços*" (arms to work). There are already plenty of arms, but they are unwilling ones ; a new race or new blood is required and indispensable. Of course there are exceptions to all rules, and occasionally one meets examples of thrift and industry amongst these country people ; but they are very rare, and are more often than not members of the much-maligned black race.

We pitched our camp a short distance from the village by the river-side and raised the tent, as the weather began to look threatening by an oppressive heat and by dark banks of clouds accumulating in a lurid evening sky ; but later on in the evening the sky cleared, the stars came out, and we had a night of peace and a delightful temperature (72° F.).

January 18.—A rapid ascent from the village the next morning found us on the summit of the hills beyond the hamlet, a ridge that divides it from an adjoining valley ; along these heights the track extends for six miles, with deep densely-wooded valleys on the right and left. From the elevation we were on, the country appears as a huge unbroken forest, even extending to the summits of distant hills ; not a sound is heard in these profound solitudes, all creation appears to sleep in the fierce rays of the sun, not a breath of air stirs the brilliant and varied foliage, only an occasional butterfly, or the sudden scream of an *alma de gato* and the tramp of the mules' feet, disturbs the oppressive stillness and silence.

At the end of six miles the track leaves the grass-land of the ridge and descends into the pleasant shade of a virgin forest. The trail was very rough, for the huge roots of the grand old trees crossed the path at almost every step, and in the rains it evidently formed a water-course, for the water had washed out the intervening soil into deep pot-holes between the spreading roots, over which the mules proceed with difficulty ; further on, where the ground formed a steep slope, the

track was yet rougher. Excepting these obstacles, this part of the ride was indeed charming; the cool dâmp atmosphere, the grateful shade, the variety of foliage, the grand old trunks festooned in a myriad of creepers and vines, and covered with mosses, lichen, bromelias, orchids, and other parasites; and against the dark background of shade fluttered like flickering lights of fire, the gaudy wings of forest butterflies and moths. One tree I here found that had been hitherto a stranger, and which I afterwards found very common in the woods of the valley of the Rio São Francisco, the *barrigudo*, or vegetable silk-tree, of the genus *Echlytes*; the trunk of this tree has a curious bulge halfway between its base and its branches that originates its Brazilian name *barrigudo* (barreled, or a corpulent person); a very fine product is obtained from the fruit pods of this tree resembling raw silk; as to its intrinsic merits of texture and durability I cannot vouch for, but it was a subject of much attention at the Philadelphia Exhibition.

In these forests, although there are to be found extraordinary curiosities of vegetation, extremely valuable timber, and trees of noted medicinal virtues, yet it is very difficult to collect any large quantity of a given nature and description, for the trees are so varied and so different, that it is comparatively rare to meet even a small number within a limited area, consequently to take from the woods the trunk or roots or other material of any given tree or plant it becomes necessary to hew a path to that particular tree or plant, and cut down scores of others on the way, that necessarily makes the labour of collection very expensive. Doubtless, in future ages, as the country becomes opened out, this wealth of vegetation will be utilized, whole forests will be systematically cut down, and the various timbers stacked in separate lots according to their varieties.

All the way from Contendas the road continually descends in a series of short sharp gradients, and at the end of sixteen miles from Barrerinhos, the track is exceedingly steep, in fact, it entails a perfect scramble down the rough and rugged path. In this last sixteen miles we had not passed a single habitation, or any stream of water, and the advice I received at Barrerinhos to stop there for the night was well justified. At the end of the sixteenth mile the small hamlet, Bom Sucesso was reached.

Bom Sucesso consists of twelve habitations built in the form of a street in a clearing of the surrounding forest ; here again is the same poverty-stricken appearance, and dirt and decay usual to all the villages of this district. The little place looked very uninviting, and learning that six miles further on in the woods there was a camping-place, we proceeded on our way in the afternoon.

After leaving the village the road immediately enters the forest by a still rougher track, for in addition to the obstructions of the forest road of the morning, we found not only the same obstacles, but also many boulders of black marble, some huge and massive, some small, and thickly strewn amidst the trees and on the road. The descents are sometimes exceedingly steep, and I could not be surprised at the many "diabo"-lical observations of the men. Sometimes the animals had to squeeze through narrow passages of rocks where the road between them was more like a broken stone staircase, and where the animals continually risked breaking their legs, or wrenching off and leaving their hoofs in the interstices of the stones.

Six long and weary miles we traversed, without seeing a break, or a glade of the forest, or a stream of water, or a roadside hut, and yet this is the high road to the towns on the Rio São Francisco. No wonder that the districts I had passed

through are so "*atrazado*" (behind the times), if the inhabitants have such roads as these for their only exits to markets or other regions.

At the end of the six miles, in apparently the centre of the forest, appeared a small clearing containing a poor ruinous rancho, a pond of stagnant water, and a small *roça*.

Finding that there was no possibility of obtaining a camping-place within several miles further, and the sun being already low, I resolved to stop here, although as I looked around the gruesome place, it looked anything but inviting.

The tall trees of the forest formed a wall of straight trunks and a canopy of foliage around a little clearing overgrown with bramble and bush, and less than an acre in extent. In front of the hut was a small pond of stagnant muddy water, of the appearance and consistence of *café au lait*, its surface covered with a thick green slime, and rank grasses and reeds surrounded its borders and rotted in its noisome depths. The black mud of its bottom was kept stirred up by the movements of two lean cows, dejected and hopeless from the unceasing persecutions of myriads of the Matuco fly. The hut was little better than an open shed, and so decrepid with age, and rotten with damp, that it seemed ready to topple over at any moment. One corner of it had been divided off by four mud walls, that formed the dormitory where the man and the young-old mother of three whitey-brown naked pallid pot-bellied dirty children all huddled together at night.

The mother, apparently not more than twenty-two or twenty-five years old, was dressed in a filthily dirty cotton skirt, and an equally dirty cotton chemise that exposed more than dirty shoulders of yellow skin and prominent bones; her head of black hair was thick with the accumulations of *banha* (beef fat), the dirt of ages, and generations of the

pediculus capitis; the latter fact was evidenced by the woman and her offspring tearing away at their heads with an energy worthy of a better cause. Her face was haggard yellow and careworn from the chronic dyspepsia of insufficient or improper food, the damp humid climate of the place, and constantly recurring attacks of ague. The man, as might be expected, was a fit mate for such a woman; apparently about thirty-five years of age, he really looked an old man; a mass of matted black hair, covered by an old old brimless straw hat, half hid from view his sunken spiritless eyes; besides his hat his only other garments were a tattered pair of old cotton trousers. As they apathetically watched our preparations for the night, the man squatting on his heels with his arms extended and elbows resting on his knees, the woman standing and supporting one little child on her hip, and the other grimy little ones holding on to her skirt, I thought it was a group only to be matched in the casual wards or slums of London.

If London has her scenes of awful misery, so have the backwoods of Brazil; but in the former it is comparatively unavoidable; in the latter there is not the slightest excuse for its existence. I asked this man why he chose such a locality for a residence when there were so many delightful healthy and convenient situations within a few miles. He drawlingly and sleepily replied that he did not know, except that his father lived there, and he had never thought of going anywhere else. But don't you see you are killing yourself and family in this low damp place? Yes, we are always having ague, but we are accustomed to it, and I am very poor and cannot move if I wanted to. One might just as well endeavour to induce the Chinese to change their habits and customs to Western ideas, as try to induce the lower and more degraded class of Brazilian peasantry to

adopt any habits, or move to any other districts different to what they have been dragged up in.

Vile and repulsive as was the water of the pond, it was used by this wretched family for all cooking, drinking, and washing purposes ; but, as the man informed us with a terrific yawn, there was an *olho d'agua* (a spring of water) down in the valley, Bob was despatched to obtain a supply ; he disappeared into a narrow path amidst the bushes, and it was nearly an hour before he returned with a bucket of excellent water. He anathematized the owner for being even too lazy to keep the path clear ; he believed they never used it, as it was so thickly overgrown with vegetation that he had to cut his way to the spring. Such moral degradation as these people presented is hardly conceivable.

Seeing that the numerous holes in the rotten thatched roof of the hut would probably afford as effective a shelter from rain as a sieve, and anxious to move from this depressing place early in the morning, the tent was not put up. I turned in, on a hide laid on the ground between my boxes, with another one overhead for a roof. Alas ! towards morning I was rudely awakened by a heavy shower of rain and gusts of wind, and a stream of cold water flowing under my couch ; the men were standing under trees or trying to find a dry place under the perforated roof of our neighbour's hut. As they were all so wet and shivering, the tent was ordered up. In the darkness, faintly illuminated by the flickering spluttering light of a candle, at last they succeeded in raising the canvas and getting under cover, but we were all, tent included, freely bespattered with mud and sopping wet ; and very soon after, the rain ceased and the first glimmer of daylight appeared. That morning our strongest mule had to carry a heavy load, as it would take hours to dry the wet tent.

For several miles from camp the road still descends and traverses the dense thick forest, until it emerges on to several miles of perfectly flat boggy land, covered with thick thorny scrub, knotted and bound together by dense creepers, clumps of bamboos and bramble—a long road without water or pasture.

After the late rains the atmosphere was particularly hot close and damp, and impregnated with the sickly odours and miasma of such low-lying, swampy ground. Finally, after twelve long weary miles of the root and tree-obstructed road of the forest, and the quagmires, bramble, and thick scrub of the plain, the troop at last reached the banks of the Rio São Francisco, at a small hamlet constructed on slightly elevated knolls, called "Pedras de Maria da Cruz."

At this place I again entered upon Captain Burton's tracks.

It was with a feeling of great relief that I arrived at this little hamlet, with the long name of Nossa Senhora da Conceição das Pedras de Maria da Cruz,² not only to give the mules a rest and a good feed of grass and corn, and ourselves also a hearty breakfast and a general clean-up after our mucky night and steamy morning's ride, but also that here we reached a more frequented track by the river-side road. After the late experience of the solitudes and bridle-paths of the districts lately traversed,³ it was almost like returning to civilization again to see at least some signs of activity in the little hamlet of eighteen houses, pack-mules in the street and *barcas* alongside the banks, and feel the fresh river-breeze blowing down the noble expanse of waters of the river, its opposite banks topped by the long line of great forest-trees,

² Our Lady of the Conception of the stones of Mary of the Cross.

³ From Rio das Velhas to Maria da Cruz the distance by the river is 194 miles.

above which appeared in the distance the blue line of the bluffs of the table-lands of the western side of the river, that look so much like a chain of hills that they might be easily taken for a great ridge, instead of being the spurs of the table-land that constitutes the division of the São Francisco and Tocantins. Apparently little alteration had taken place in the village since Captain Burton's visit seven years previously. There was still the old church on the hill 167 years old, the white limestone rocks, apparently the same half-clad brown women working the old pillow-lace at the doors of their cabins, even to the goats of the village, and not a single hut had apparently been added. However, both man and beast being refreshed and reinvigorated, we left the little hamlet and proceeded by the river-side road towards our destination, Januaria, distant about eleven miles.

Although the new route was a well-beaten track, it had few merits with which to congratulate oneself, excepting that all the way it was flat; it passed alternately through narrow clumps of forest, or scrub, or grassy swamp; and in many places appeared long stretches of low marshes abounding in numbers of wild fowl, including the large black-necked and white-bodied stork, the *Jabiru-Moleque* (*Mycteria Americana*), and all the other various birds we found in the swamps of Pirapora already described.

These marshes I afterwards found to be a common feature of the São Francisco valley, and similar to those of the upper river. The immediate banks are higher, and usually covered with narrow belts of forest or bush; inland the ground is lower, and becomes inundated when the river is flooded, and forms extensive lagoons, that dry up in the dry season and generate myriads of mosquitos and deadly malaria; further inland the ground rises in undulations to the base of the accompanying grass and scrub-covered highlands, where a

purser healthier and drier atmosphere is obtained. Undoubtedly as this vast valley in the distant future becomes more populated, these marshes will be drained, as they can be at comparatively slight expense, and then will be found the soil, conditions, and area sufficient to supply the world with rice.

In this hot insalubrious stretch between Pedras de Maria Cruz and Januaria there were very few habitations, as all the business is on the opposite side of the river, where the land is more elevated and healthier.

On arriving at the *porto*, in front of the last-named town, we prepared for the passage of the river; there was a large canoe for ferrying passengers across, and a large *ajôjo* or raft for transporting animals.

The aspect of the river seen from the bank, resembles a large lake, to any one unaccustomed to the vast expanse of the waters of large rivers. Across the broad width of the river, 4000 feet wide, the distant opposite bank of red and yellow clays forms a long thin red line, topped with forest and rows of white houses with their red-tiled roofs, and the varying tints of brightly-painted doors and windows; some miles behind the town rises the clear but uneven outline of the highlands enclosing the long-extending flats of the valley. At the landing-place there were a number of canoes, *ajôjos*, and *barcas* from both up and down-stream, bringing hardware, Manchester goods, crockery, salt, and minor articles of various natures, brought overland to the upper and lower river from Rio de Janciro and Bahia, and much of which will be forwarded on to Goyaz from Januaria. There were also dark-skinned sinewy boatmen of the river; countrymen from the Geraes; gaudily but semi-clad washerwomen, black brown and yellow; naked *moleques* (negro lads), all chattering, smoking, and expectorating. On the flat ground above are the long streets

of brilliantly-painted houses and *vendas*, the passing trains of mules, wandering stray goats and pigs, horsemen on gaily-caparisoned fast-pacing steeds, that stir up the hot dust of the sandy streets into thick clouds. Such signs of life, even with the many idlers lounging at door and window, or squatting on their heels on the banks of the stream, made up a scene of movement and business that I had long been unaccustomed to.

Two of my colleagues, O—— and H. G——, who had preceded me some days from Pirapora, were domiciled in any empty house in the Rua do Commercio, awaiting the arrival of Messrs. J. B—— and A. F——. It was pleasant to meet again and discuss the experiences of our journeys, and the mysteries of the unknown West we were about to explore.

January 21.—During this day Messrs. J. B—— and A. F—— arrived in two *barcas*, heavily loaded with the general baggage of the expedition, consisting of all the stores, instruments, saddles, camp furniture, &c., much of which we would gladly have utilized, but it was preferred to eventually carry it at great expense to Bahia, where the collection of rubbish was sold for such prices as did not compensate for half the cost of carriage.

The accommodation of the cabins of the two *barcas* enabled their passengers to make themselves very comfortable in the floating quarters. The boats were about fifty feet long by nine feet beam; in the stern part were commodious *Indaia* palm-thatched cabins, with doors and window, containing the camp beds and personal effects of each traveller; a pilot at the helm, eight paddlers, and a cook constituted the crew of each *barca*.

These craft have not been in use on the river more than fifty years; (previous to that period the work was done in canoes and *ajojos*.) They are very heavily and strongly con-

structed of the best Brazilian woods ; the bottoms are flat and keelless, the stems and sterns rounded and raised like a spoon. Some of the well-to-do river traders have some very elaborately painted craft, showy with bright blues, vermillion, greens, &c., with doors and glass windows to the cabin, that serves as shop, warehouse, and dwelling, where, surrounded by the shelves and lockers containing his merchandise, the trader swings his hammock. The *barqueiros*, or boatmen, must have a constitution and physique like an Arab. The long day's work of the extremely laborious toil of poling upstream with heavy poles, twenty to twenty-four feet long, not only requires muscle and stamina, but considerable experience also. The poles are used for going up-stream ; for the return long heavy paddles, like sweeps, are employed. At the age of eighteen to twenty the men commence their arduous apprenticeship and training to the use of the pole ; one extremity of it is placed against the breast, the other end being thrust against the bottom of the stream. They then impel the boat forward by walking towards the stern along a narrow side platform that runs from stem to stern. The pole is hauled up at the end of the tramp, dragged forward, and the process repeated. The apprentice has to continue this work for days, until his breast becomes greatly inflamed. It is then bathed with vinegar, and if the disciple can withstand the hard work, his chest eventually hardens, and enables him to work without further inconvenience. I have noticed the chests of some of these men corned to a surprising degree of toughness.

Messrs. B—— and F—— sailed the same day for Carinhanha, where it was arranged that we should all again meet ; O——, G——, and myself were to proceed with the animals by land as soon as possible.

An afternoon stroll through this town, (I beg its pardon)

city, of Januaria and its 6000 inhabitants, its dusty streets, and swampy suburbs, showed many of the scenes peculiar to a thriving inland Brazilian town. In the hot glare of the sun-lit shadeless streets, one sees at street corners and *venda* doors, bony dejected-looking horses, standing and waiting patiently for hours, whilst their owners the country folk are transacting their *negocio* (business), or *conversa* (chat) indoors. Poor wretched animals are most of these country hacks, unkempt uncared for and half starved, excepting those of *fazendeiros* that are generally fat and spirited gay and silver-bedecked pace horses.

Amongst the passers-by we notice the Portuguese and Brazilian traders and planters in black or coloured coats, white trousers, gay cravats, and liberal watch chains; leather-clad brown cattle-men from the Geraës; brown and black women with gaudy shawls, low-hanging embroidered chemises, gay-coloured skirts, and bare feet—most of these carry on their heads trays of sweets, cakes, or fruits to sell, or else great jars of water from the river; river-men in the *camisolas* or sleeveless shirts and short pantaloons, having their day ashore, well charged with *cachaça*, and gambling in some open shed, or screaming a São Franciscan *barcarole*: add to all the foregoing, lounging and squatting groups of men, women, and boys, under the shade of trees by the river-side, or open doorways, or wherever shade can be found, skylarking nigger lads, occasional gaunt pigs, mongrel curs, and spectral fowls, that combine to make up the *vida* (life) of the streets. The houses of the more well-to-do classes have white-washed or coloured fronts, glazed windows, tiled roofs, stucco ornaments, and gaudily-painted doors and windows, but the interiors are bare and uncomfortable; in the receiving-room is seen the inevitable cane-seated sofa of Jacaranda wood, and two chairs placed at right angles to it at each extremity,

between which is often placed a cheap gaudy carpet or rug, to cover a little of the boarded and often dirty floor. This arrangement of sofa, chairs, and carpet forms the reception throne of the owner when he receives the visits of ceremony of his neighbours and friends. Against the whitewashed walls of the room appear small side-tables and other cane-seated chairs; cheap and gaudy vases, or the image of a saint, occupy the tables; on the walls a few pictures of saints, or cheap prints of scenes in Portugal, complete the bare and uninviting aspect. Down the passages from the entrance, one perceives the doors of the windowless bed and other rooms, and at the extremity, a yard, or garden, of a few orange-trees, *papaws*, bananas, pomegranates, *guava*, or bread fruit, mingled with a few flowers and much rubbish; at the end of the corridor is a dark-looking kitchen, with moving figures of black women and children; the white mistress superintending with flower-bedecked hair is often heard but seldom seen. Squalling children, dust, and hot glaring sunshine complete the rest of the picture.

The shops of the tradesmen are all open to the street. The *venda*, or general store, having on one side cotton and similar goods, and on the other hardware, and the miscellaneous and odorous stores of a village grocer, serves also as a drink shop, or village ale-house for the discussion of politics, or any other *conversa* (talkee). Then there are the shops of the shoemaker, tinman, tailor, and other trades of a small city. Much of the business is carried on, on the soft muddy *praia*, or river beach, and largely consists of barter, as in nearly all the country towns of Brazil.

The habitations of the poor classes range from plain whitewashed adobe-built houses with unglazed windows, to thatched huts, or birdcage-like huts of sticks; bare earth floors, plain benches or stools, and smoke-begrimed walls

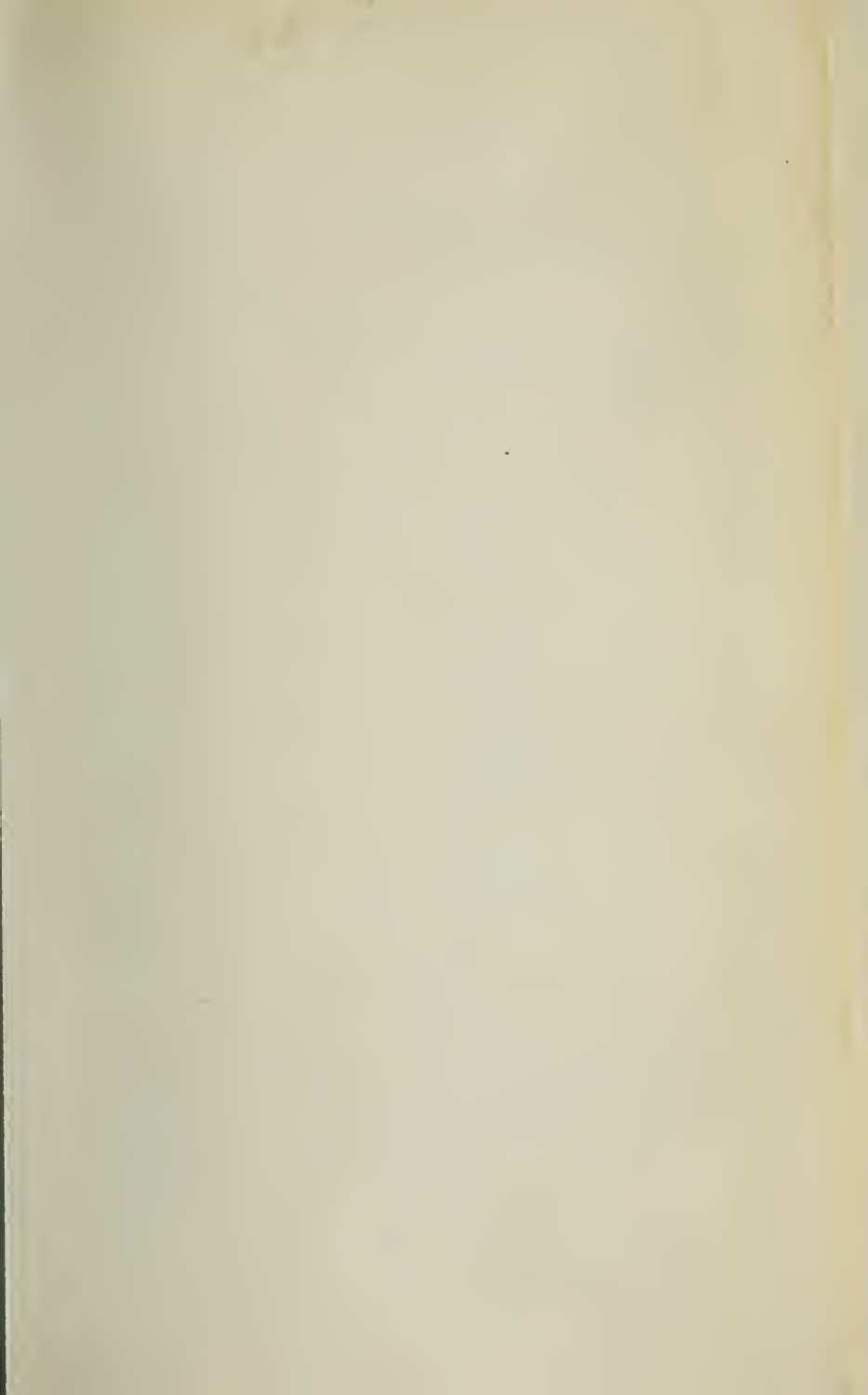
and roof, a *pilão* or pestle and mortar for pounding coffee or maize, a few earthenware utensils for the kitchen, hammocks, or trestle-beds make up the sum total of these homes.

During the day we received a deputation from the local magnates, kindly offering us hospitality, and a request to prolong our stay to visit the neighbourhood, and also requesting us before we proceeded down the river to examine the route from this place to the Tocantins, as offering a shorter and easier direction than that from Carinhanha or Villa da Barra. For various reasons their requests could not be entertained.⁴

The next day, as O—— was down with an attack of intermittent fever, H. G—— was deputed to pay a visit to Brejo do Salgado, a distant suburb of the city, for the purposes of tendering our excuses and thanks to the deputies. He returned in the evening with glowing accounts of the good times he had had amongst the good people of the Brejo; he was very hospitably treated, and great attention and courtesy rendered to him. We regretted that the necessity of our immediate departure prevented us forming a better acquaintance with hospitable Januaria.

⁴ This route is much shorter than the one explored from Carinhanha. See Appendix B.

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