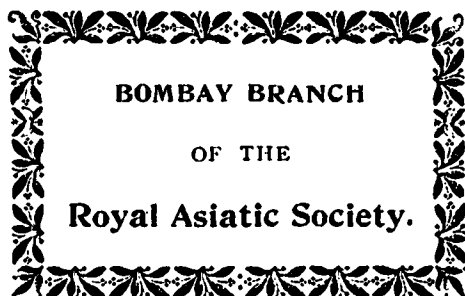




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BOMBAY BRANCH
OF THE
Royal Asiatic Society.

JOURNEY

FROM BUENOS AYRES,

THROUGH THE PROVINCES OF

CORDOVA, TUCUMAN, AND SALTA, TO POTOSI,

THENCE

BY THE DESERTS OF CARANJA TO ARICA,

AND SUBSEQUENTLY,

TO SANTIAGO DE CHILI AND COQUIMBO,

UNDERTAKEN ON BEHALF OF THE

Chilian and Peruvian Mining Association,

IN THE YEARS 1825-26.

BY CAPTAIN ANDREWS,

LATE COMMANDER OF H. C. S. WINDHAM.

IN TWO VOLUMES.

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ERRATA TO VOL. II.

- Page 16 line 14 *Country*, for "County."
66 — 17 *property*, for "estates."
96 — 4 *Junin*, for "Junon."
102 — 4 *of*, for "or."
109 — 2 *Lipes*, for "Lopez."
119 — 14 *one Ingenio*, for "our Ingenio."
123 — 8 *iron gad*, for "iron part."
191 — 12 *Caramba*, for "Carambo."
199 — *Concepcion*, for "Conception," and sequ.
268 — 15 *Ancon*, for "Ancon."



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City of Salta—Danger from inundation. Manners of the inhabitants—General Aranales—Journey to Jujuy—Mule travelling—Liberality of the country people—Cabaña and its fine site—Arrival at Jujuy—Mining concerns—Different modes of travelling—Directions in preparing mule equipage for a mountain journey.

THE city of Salta is very pleasantly situated on the acclivity or slope bordering upon an extensive plain, protected on the east at a league distance by inconsiderable eminences clothed with underwood. On the west, three leagues off, are

gigantic hills, the first steps of the stupendous chain of the Andes, abounding with rich timber. On the south the plain extends perhaps ten leagues, and north about three ; the forest trees reach to within a league and a half of the town. A spacious square (in which the government house is situated, together with several public buildings and the cathedral) forms the principal ornament of the place. The streets are clean and uniform, rather than capacious or superb. The houses, built of brick, are after the plan of those already spoken of at Cordova. In fact, when the traveller has seen one city, he has a fac-simile in his mind of all the rest.

Two rivers, arising in the mountains, the Arias and Silletto, watering the rich plains in their course, unite, I imagine, with the Solado, which runs into the Parana. From the Arias the inhabitants of Salta get their house supply of water, while they are in constant danger of a

general and fearful inundation from a junction of both rivers, as they approximate each other. The bank between the two rivers has more than half of it been carried away by the cataract torrents of the Silletto, during the rainy season. One hundred thousand dollars would avert this calamity, which sooner or later must befall the city; yet even this sum cannot be raised. Señor Nuñez has commented literally on this. "Nothing," says that gentleman, speaking of the revolutionary war, "nothing but the natural advantages of Salta could have prevented her disappearance from the list of provinces." It will be strange indeed if her superabundance of natural advantages should be her ruin! For the want of £20,000 sterling, seven thousand souls out of the fifteen thousand this province contains, are periodically in danger of being swept away from the face of the globe nightly and daily. How well might such a sum be dispensed with,

and scarcely found wanting from many a European's income!

The markets of Salta, after what has been advanced of the fertility of the province, it will be almost superfluous to say, are well supplied from garden, orchard and field. Of the cheapness and plenty reigning here, with little assistance from art, an idea may be formed by the fact, that including wine, and the hire of an entire house (for which we need not have paid anything had we not chosen to do so) our whole expenses for four persons, two domestics, a capitaz and peons, cost us in twenty-one days no more than eighty dollars, or sixteen pounds sterling. Out of this sum the wine, being a foreign commodity, was the heaviest part of the charge.

The ladies of Salta are proverbial in the provinces for personal beauty, and highly polished manners, to which a sprightliness of air, and a remarkably affable demeanour, give additional attractions. The tone of society is of the first

cast: The men are not behind any South Americans in shrewdness, liberal views, and intellectual comprehension. As far as natural advantages, and the mental culture of the country will carry them, they have advanced. In nothing more will the traveller, who has formed mean ideas of the people, be deceived, than in the social state of this province. Of their superiority in capacity, I had ample proof in my public and private interviews and communications with them. If further testimony of the state of intellect be required, let the reader turn to a decree of the government, promulgated shortly after I quitted Salta (see Appendix), to confirm my observations.

I must not leave Salta without mentioning the governor, General Aranales, who much distinguished himself during the revolution, principally in the campaigns of the provinces of the Rio de la Plata, and also in Chili, and Peru.

He is most noted for his overthrow of a royalist force from Lima, sent under the command of General O'Reilly, whom he routed near Pasco, where he had been left in 1820, by San Martin, in charge of a small division of the liberating army, acting as a corps of diversion. Finding that General O'Reilly was on his march from Lima to attack him, he boldly anticipated his enemy's intention, and met him with comparatively a handful of men at Huamanja, in the valley of Xanja, where he destroyed or took prisoners O'Reilly's entire army. This battle is commonly called the battle of Pasco, and is deemed one of the most important victories, from its consequences, that was gained during the war. After the battle of Pasco, Aranales joined San Martin near Huara, to the northward of Lima. The general is nearly eighty years old, and marked with numerous wounds, testifying his bravery in the field. He is still active and indefatigable in discharging the important duties

of his station. He governs with a firmness and equity that make him beloved and respected. In person he is tall and thin, bearing marks of having encountered great mental anxiety, and bodily toil. He has a deep sabre wound on his left cheek, which imparts a singular interest in addition to the expression of his grave Spanish countenance.

The same open-hearted hospitality awaits the foreigner at Salta as in the other cities of South America which I have visited. In short, it is a distinguishing mark of their character, that wherever you proceed the door is open to you, with just as much of etiquette observable as is necessary to good breeding and agreeable carriage towards strangers.

On the 19th of September having left Dr. Redhead provisionally instructed, as agent for the company's interest in the province, I took leave of the governor, of my friends, and of

Salta, and at three p. m. I started for Jujuy, and journeying six leagues, put up at Caldera, a post-house, situated in a rural patch of valley, at the base of a range of lofty hills, crowned with shrubs of infinite variety.

The route to this post lay along a Quebrada, where stones and water alone are plentiful. This Quebrada is a torrent-bed which runs among a chain of mountains, of which the Spaniards have availed themselves for a road. It can only be conveniently traversed at particular seasons, when the heavy rain and melted snow from the mountains cease to swell the waters. The general nature of the track, in fine, renders it only passable for mules, and even for them in many parts there is great deficiency of pasturage.

On the 20th some of our party, who had remained behind in Salta, at a tertullia given by our friends the Garruchagas, joined us, and our

company consisted of its old number. We had all now to make our way on mules instead of travelling at ease in a carriage. Our route was through the sinuosities of a luxuriant valley, surrounded with noble scenery, and backed by cloud-capped mountains. As we proceeded we found the wear and tear from our jog-trot pace by no means agreeable, nay absolutely irksome. The only thing in favour of mule-riding is, that as each traveller is independent of the other, you have more leisure for musing on the past, and scheming for the future: nay, even to philosophize without interruption, as you form a part of the chain plodding on one link after another, through holes and over rough stones, or over sandy levels, seldom side by side, and rarely close enough to interrupt each other's thoughts by continued conversation. If any one wishes to meditate on the dreams of human existence, and the ups and downs he has met with in life, I commend him to mule travelling. When the

sentimentalist Sterne affirmed life's journey to be a shift from side to side, from sorrow to sorrow, the buttoning up of one cause of vexation, and the unbuttoning of another, he must have been on the back of a jaded mule, among the Andes, having three long leagues to travel to complete his day's journey.'

We stopped this day at several estancias, or farms, and found the proprietors aware of our coming, each having small samples of ores to show to us, belonging to his estate, and thinking, like some of the shareholders at home, to make his fortune at a blow. Notwithstanding their disappointment at our not coming into their views or halting to negotiate with them, nothing could exceed the liberality of conduct, frank demeanour, and genuine hospitality we experienced. I was sorry their dreams of good fortune through our means are not likely to be realized.

We halted at Cabaña, which is only reckoned

to be five leagues from Caldera, though it seemed nearer ten, both to my mule and myself. The resting place at Cabaña is elevated above a fine fertile winding valley, with breaks between the secondary ridges of mountains, highly picturesque. It is a delicious place for a philosopher, or amateur in the sublime and beautiful. My eye was struck with admiration at the vast masses of mountain ridges, of every rugged form, in the distance; at the tranquillity and richness of the nearer scene, and the charm of the vale below. Here might the pen of Scott paint scenery new to the European eye, and transform it into the abode of successful love or unsuccessful heroism. Here was grandeur, and beauty, and variety, enough to exhaust even his unwearied pen.

On the 21st, as soon as the sun began to break on this romantic spot, we prepared to leave it, though rather stiff from yesterday's first essay at mule riding; but the

expense to skin and bone is a matter of no computation with the South American traveller; halting does not promote condition; our mules were as stiff, and as little inclined to frolic as we were ourselves. We had the unexpected good fortune, however, to find here excellent horses, of which we availed ourselves for travelling to Jujuy, a distance of seven leagues. We mounted them, and galloping through an enchantingly variegated country, reached Jujuy about 3 p. m. on the 21st. This ride was a complete pleasure excursion, and we enjoyed it accordingly.

On entering the town we were greeted by our old friend and fellow traveller, Don Benito Lozano, who soon procured comfortable lodgings for us, at the house of a couple of respectable and well bred maiden ladies, of the "Godo" or old Spanish party. And here I would recommend the traveller in South America, to avail himself of a lodging wherever he can do so (and there is an opportunity in almost every town),

in the houses of persons who formerly enjoyed consideration during the old state of political affairs. Independently of the natural feeling to render the people of this class; now so reduced, all the benefit he is able, the traveller will find himself well attended, and meet a cleanliness in the house, and a good breeding among the inmates peculiarly agreeable. The usages of the society in this country admit of no return for board and diet, in the way of pecuniary consideration. There are no hotels; and the taking your own quarters for independence sake, and catering for yourself, is troublesome and ungainly.

Our mules and baggage reached Jujuy about four hours after our arrival. The animals were foot foundered, and this sufficiently evinced the bad policy of putting these creatures at once on the road from grass feeding, at which ours had been kept, without giving them previous exercise. They should have been in training at least

a fortnight before they set out, to get them into a proper state for such a journey as we had to encounter.

Jujuy placed in immediate relation with the Upper Peruvian provinces, and the high route to Potosi, enjoys greater advantages than Salta, which is nine leagues out of the road. At Jujuy the principal part of the ultra-marine goods brought in carts from Buenos Ayres for the Peruvian markets, are discharged and deposited on mules, which mode of carriage is alone practicable further. The town is therefore a depôt of every thing in travelling detail for mountain work. The difficulties of passing the Cordilleras render forecast especially necessary. The town for this reason had more of the bustle of business than any other place, I had seen since leaving Buenos Ayres. As Jujuy was the advanced station during the late war, and placed often between the hostile forces, I was surprised to see how little it had suffered in com-

parison with more remote towns: It had an appearance of cleanliness and comparative comfort, bespeaking superior skill and tact in the people, who had sustained themselves so well during the ravages of a long revolutionary conflict.

The jurisdiction of Jujuy extends north and south about seventy leagues, and in length from thirty-five to forty. It is bounded by the province of Chichas to the north west, and skirting Tarija to the north, has for its eastern limit the Rio Vermejo; it is incorporated with Salta, to the southward, and it is confined by the majestic Andes on the west. A population has been assigned to it, more than at present exists in the whole province comprehending Salta, unless the Indians are included, of whose numbers we have no authentic account. The district of Jujuy is affluent in natural productions. Its wool is of excellent quality, and is wove into ordinary stuffs, for the Peruvian market, as well

as for home consumption. The province is well watered by the San Salvador, and other streams from the Andes. The western plains are, however, principally indebted to the San Salvador alone, which unites with the Jujuy or Rio Grande, that ultimately falls into the Vermejo.

Jujuy is charmingly situated in an area, surrounded by mountains, said to be exceedingly rich in the precious ores. It seemed to have been here the opinion of the first settlers, or old Spaniards, as before observed, that mining belonged to deserts, and this notion weighed against any attempts on a great scale to search for minerals in those parts of the county gifted with the finest vegetable and animal productions. If the site of a mine were not adapted for being kept clear of water, by the simplest means, it was abandoned; the inhabitants preferred living upon the soil to labouring under it, much less to making hazardous efforts to disengage the works from water. The celebrated mines of El Pan

de Azucar, Rosario, and the golden Lavaderos* of the Rinconada, were thus abandoned. It seems they were ignorant of the first principles of hydraulics, or had not brains to conceive, much less manufacture a common pump. They were too imbecile and too little inclined to novelty and innovation for trying to procure such a machine elsewhere, if indeed it ever occurred to this supine race that the thing existed in any part of the world.

The Bineros or Lavaderos of this province, so much spoken of as producing an abundance of gold, in dust, *Pepitas* and *Laminæ*,† yielding never less than twenty-three carats, have consequently been abandoned, without being a third worked, for want of a pump capable of drawing water only from eight or ten yards depth, which is about the level where the precious metal is discovered. It is distributed there in the accumulations of sandy strata and

* Alluvial deposits.

† Grains and scales.

alluvial deposits, resting upon a bed of rock, at the bottoms of glens, brought down by the mountain torrents of unremembered ages.

In the *playas* of the celebrated quebrada of Tipuani, in the province of La Paz, at the works of Iscoa, as late as 1819, 1820, and 1821, from three to four hundred labourers were constantly employed in hand-bailing with hide buckets to keep down the water, at an outlay which seems too great to have been remunerated by any works; but the expence was accounted for, according to the proprietor Don Ildefonso Vilamil, by the abundance of the product.

It was indispensably necessary that our mules should rest at Jujuy a short space. We accordingly remained three days, during which time we visited the governor, a fine old soldier, whose face lacked an eye, and was otherwise disfigured with "villainous saltpetre." He plied us closely with questions respecting our mission. He said he had long heard of, and expected us,

and hoped we were going to commence some of our operations in his district, where there was an abundance of rich ores. Of these, he exhibited to us some very fine specimens. In order as little as possible to disappoint him, I expressed a hope shortly to return, and deliberate upon his propositions. We afterwards paid our respects to the curate, who to his sacred functions joined the profits of a thriving trade. He kept a *tiendré*, or shop, and by his twofold profession contrived to profit largely, and was said to have already accumulated a considerable fortune.

The worldly proceedings of these fathers are generally conducted *sub rosa*, and not unfrequently through the medium of an adopted nephew, whom people are wicked enough to convert into a son. This thriving man was laying in his yearly store of merchandize at Cordova during my abode in that city. I became acquainted with him there, indeed, was his

“*amigo mio*,” and from the lively expressions of friendship he was pleased then to bestow upon me, I was somewhat surprised at the cut I received—of the coolest cast of civility in waiting upon him at Jujuy, instead of a pious hug, with which I had been heretofore honoured.

Whether the good curate conceived the object of my visit was entertainment, at his expence, or felt it a dangerous example before his flock to patronize heretics, “*quien sabe!*” but the only instance I ever experienced in South America of a lack of uncommon courtesy to a stranger, was on this occasion.

On the other hand we received the usual kindness and hospitable attention from the family of Friez and from others, to whom we had introductory letters, of which it would be ungrateful to omit a due acknowledgment.

The great object of securing the late General Olañeta's mineral property at Tupiza, rendered

it important for Mr. Scott to proceed in advance, *à la chasqui*, which he handsomely volunteered to do on the eve of our arrival. It was not until the 24th, that our mules were shod and sufficiently recruited to enable us to proceed with that independence of every accident on the road, so essential to the traveller's arrival within a given time.

On leaving Jujuy, the traveller should be circumspect in the choice of his mule apparatus. If he have any regard for personal economy and ease, he must not trust to the wits of his capitaz or peons. But if he should proceed by post, baggage, peons, and comfort of every kind are out of the question: he must fare as the chasqui or courier does; ride as hard, sleep a couple of hours in twenty-four, and almost exist upon the hopes of his journey's termination.*

* Travelling with the *chasqui* or courier, you go at the rate of about one hundred miles a day, and pay about

The costume for a mountain traveller, in addition to the saddle equipage, is a broad brimmed straw hat, for a shade; also a handkerchief to be tied round the head and face, to avert the detrimental effects of the sun and wind upon the skin. A rough jacket and trousers, if of flannel the better, as in the day time a poncho may be substituted while the heat lasts; which it is customary to draw tight round the loins, when not required to be so used. A pair of gaucho boots, fabricated with worsted, to draw over the knees and fasten as gaiters,

two-pence per mile. On the other hand, and journeying in the common routine of a cavallero, the *rolle d'equipage* of mules, should consist of—

Two for one's own saddle.

One for provisions.

One for a couple of trunks and bedding. } *carga* mules.

Two for occasional reliefs.

This is exclusive of the capitaz and peons; but they will generally find their own mules upon being allowed their food, as they easily obtain a profit of from twenty to fifty dollars by selling the animals at Potosi.

with a strap under the foot. A pair of stout spurs are necessary, with rowels an inch in diameter. A pair of bullock's horns with stoppers, to carry water or other liquid. A couple of saddle-bags made of worsted, to contain such provisions as the traveller may choose to take without stopping ; a stock of cigars must not be forgotten. The latter are not only for the traveller's private use, but to present to the capitaz and peons, and keep them in good humour. The best store for *pic nic* haltings, is composed of hams and tongues ; minced charque, which the natives flavour with herbs and spice ; these, together with onions, frijoles, (beans,) grease, and a little flour to thicken all, the peons make into a kettle of excellent soup. A quantity of biscuits and sweet rusks are indispensable, bread not being commonly purchasable at the post-houses. An iron kettle, and a copper one for tea or coffee, with an English canteen, render

the traveller a sovereign in the deserts of the Andes.

In respect to mule travelling itself, there is, as before observed, nothing upon earth half so tedious and wearisome. These animals have no regular pace: one doubles, another shuffles, a third will now and then canter, but this is seldom; yet a high-bred mule has often spirit enough to gallop a mile or two upon a stretch. It may be easily guessed therefore that what is called keeping company with another on the road is out of the question, except at a drawling pace, too expensive in time and aching bones to keep up. Thus each makes his own way in silent thought, or unsocial sulkiness. If the traveller feel in good spirits, cast as he is on his own resources for amusement, he tries every possible experiment to beguile the tedium which is around and upon him. He has besides to avert the solar rays as much as possible, and even their reflection upon his face, especially if

passing among slaty rocks, along the mountain's steep, or over the white sand-hills which abound on his route through the plains. The baggage mules require all the attention of the capitaz, who is also the guide, and they proceed so slowly that keeping near them irritates the nerves with their vexatious crawling. If you start off alone you fear to lose your way, and the propensity felt to do so and halt till the baggage comes up is checked. When I was sure of the road for a good distance, I found it pleasant to advance a league or two a-head, dismount, and go to sleep till the capitaz and his train reached me. Often, by way of refreshing myself, I have taken off my clothes, and when the opportunity admitted, enjoyed the inexpressible luxury of bathing in the mountain torrents. I can never forget how I envied General Alvear his horse, when he passed us afterwards on the road, the superiority of comfort is on horseback so great. It is better to incur a double expence, and, letting

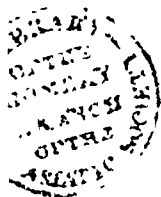
the baggage follow at leisure, make a less irksome thing of it. The idea that horses are not so well adapted for travelling in this country as mules, is no doubt correct, as to the mountains, generally speaking, especially for their superior sagacity, surefootedness, and endurance of fatigue. But where there is a succession of hill and plain, the rapid progress I saw subsequently made both by General Alvear and Colonel Dorego, going the same route with ourselves, and arriving two or three hours before we did, after starting perhaps an hour later, proves that horses, on such a kind of mixed road, are best, while in point of ease there is no sort of comparison. The being released two or three hours earlier from the parching heat of the sun, far exceeding in so long an exposure anything I ever before experienced, is a material object; and to this inconvenience are added the gusts of warm wind, which blow down upon the traveller, heated in the funnels formed by the

inequalities of the mountains and quebradas, besides the being blinded or choked with hot sand in the plains.

The mule traveller thinks that his journey never can end. He meets an Indian, and on asking how many leagues he has yet to go, gets "no se," or a reply widely differing from the distance at which his guide rates it, and even the stranger informant is perhaps so ignorant of the matter that no dependance can be placed on what he asserts. As for the peons, they never trouble themselves on the subject. They stick to present business. Their abode is the open air, and they are at home on the road, travelling along without care, and cheering the mules with a song. Now they dismount from time to time to help up a jaded beast that has lain down with his "carga," or load, for a moment's respite, in which case the burthen must be replaced. The load re-arranged, the peon drives the mule up to the rest. Meanwhile another animal has

taken it into its head to lie down, and is to be assisted as the preceding one has been. A patch of good browsing ground is now perhaps discovered by some young beast, which leaves the *madrina* (usually a mare, with a bell round her neck, which leads the troop), and gallops away to regale itself. The goodness of a mule is generally estimated by the steadiness with which it keeps up with the *madrina* during a journey. The peons must pursue all runaways, sometimes to considerable distances; yet the animals rarely receive ill-treatment for thus playing truant, and giving their masters trouble. A rattle on the haunches with the bight of the lasso alone reminds the deserter of his duty, perhaps while grinning at a thistle which he seizes, and runs back with to his post, there to receive a look and lecture from a "companero," or comrade. Even such an incident as this is food for reflection to the most thoughtless mind during such a journey. The differences between the peons and their

mules, in the exhibition of their intellectual faculties, is another oft-recurring theme for meditation, and not unfrequently the animal appears to have the advantage of his masters.



CHAPTER II.

Journey continued—Singular road between the mountains—Position of General Urdininea—Immense chain of mountain basins—Humaguaca—Abra de las Cortaderas—Arrival at Mojo—Reception of General Alvear—Suffering of the mules—Angostura of Tupiza—Transactions with Don Miguel Altube—Mines of Chiromo—Ornaments of natives—Suspensions of Don Miguel—A Lavadero. —

OUR journey on the 25th, for about five leagues, lay at first along a narrow slip of valley, with noble mountains on either hand, occasionally throwing out from their bases, projections and promontories which obliged us to make considerable traverses. The road was a sort of terrace, seemingly cut out of the solid rock, so flat and smooth as to appear like an immense work of art, hewn with the unsparing expence of a Beckford, or effected by the mili-

tary energy of a Napoléon. This strait is the "desaguadero" or channel, through which the waters, accumulated in the basins above, find an outlet. These waters are now but rivulets to the mighty torrents which in some remote age must have torn a passage through them. From these slaty ledges, the sun reflected a degree of heat almost intolerable, while huge fragments of rock sown thickly on our track, rendered it tedious and even difficult for the mules to steer between or around them.

In the evening we found ourselves in the position occupied by General Urdininea, who commanded a force destined to act in conjunction with General Aranales against Olañeta in Upper Peru. In the occupation of this spot he remained while Olañeta became exposed to the victorious army of General Sucre, which was advancing upon him from Ayachucho. The space of eight months spent here in complete inactivity by Urdininea's force, exposed him to

censure, and led to his temporary suspension from command. But it was never shown whether he lay thus idle, from apprehension that his motley force of only fifteen hundred men, gathered from various provinces, was not able to cope with Olañeta, or whether he acted under instructions from Buenos Ayres; it having been suspected that a jealousy of the Libertador might exist on the part of the government of that province, at the moment the former was about to occupy Potosi, and the territory formerly attached to the vice-royalty of Buenos Ayres. Whatever was the cause, a better position, both for defence and convenience of communication, could not have been found. The choice of this post, where the barracks and stabling still existed, evinced considerable military skill on the part of Urdininea. A pure stream ran through the centre of this romantic spot, on the margin of which our mules luxuriated through the night.

While the mules were loading the next morning, we ascended an eminence which afforded us an interesting view of the confined valley or hollow, to the boundaries of which, the sight was now restrained; but we had not leisure to reach an elevation sufficient to afford us a view over the limits of the lofty and majestic barrier which enclosed us. The sides of the mountains were covered with good browsing herbage for cattle, which was protected in its growth from the solar ray, by stunted shrubs, above which the torch thistle and prickly pear rose conspicuously. Higher up yet on the mountain sides beyond the vegetable limit, and inaccessible, or apparently so, were seen coloured patches on the soil, which we thought metallic, and indicative of the entrances of some deserted mines.

Our mules, refreshed by the night's pasturage, plucked up their ears, and seemed to feel gay under their burthens. Indeed the whole of our escort appeared under the influence of tem-

porary excitement as we set out, indicative of a determination to pass an agreeable day. We journeyed along through basins and their connecting straits. Now, in a huge bowl of vast circumference, arched over by the cloudless blue heavens which rested upon snow-capped mountain ridges of amazing elevation, circumscribing the eye to an apparently limited view. Towards the latter part of the day, these vast basins assumed a more continuous chain as we ascended. Through the bed of these an impetuous torrent raged towards a narrow outlet, the strait that conducted it into the next basin. Its turbid and angry violence in the deeper parts, while crossing it, occasioned a giddy sensation, by no means pleasant, and not lessened by the reflection, that if swept down into them, salvation was quite problematical. We made this day eight leagues, and bivouacked on a green patch by the torrent side, pretty well fatigued from the sun's heat, which ope-

rated with intense power; indeed the more enclosed places were literally ovens.

On the 26th, we continued to ascend gradually through the same singular character of country. Basin followed basin, link after link still connected by corresponding straits. The sight was overwhelmed with astonishment at these stupendous excavations. No language is adequate to describe the mighty magnificence of their conformation, nor its effect upon the mind. What must have been the volume of the waters which formed them? for that they were hollowed by such an agency no one can doubt. As they now exist, nothing can be more admirably adapted for receiving and guiding to an outlet the mountain floods. But none of the floods known to have flowed through them, could have scooped their profound depths, or rounded their vast circumferences. Step after step we mounted through them, and marked the projecting slips or tongues at the entrance of

each, overlapping one another with mathematical precision, forming a gloomy strait, which being passed, a fresh basin, without a visible passage out, save that by which we entered, still burst upon the sight. We seemed again locked up from the world, in a gulph from which there was no escape ; above us the cloudless heaven as before ; around the steep concave sides of the hollow, and over its edge above the peaks of the eternal mountains. How and when these were formed, let the geologist tell. They certainly are even now a protection to the lower country, from the mountain torrents, by confining their course to a specific channel ; but the deepest stream that disembogues itself through them now, is a rill, infinitely diminutive, to the ocean that must have first poured through, and hewn out these gigantic channels and basins. All the snows of the Andes, simultaneously melted, and rolling onwards with a mighty head at once, could scarcely be supposed equal to the forming

such enormous excavations. Up to the loftiest summits of the mountains, however, the action of water is visible, as though the sea had broken upon them, or flooded and retired alternately on them, for thousands of ages.

On the 27th of September, we proceeded as before, up though a continuous chain, which at the close of this day's journey began to enlarge a little, the amphitheatre of mountains appearing to soar higher, as if to yield a greater space for the accumulating torrents which, during the rainy seasons, must issue from their deep and awful quebradas. This day we discovered a few scanty Indians, miserable enough in appearance, peeping from huts scarce discernible through the dense foliage around them. Our attention was drawn towards them by the barking of their curs; but on going to the door of one of the huts, in hopes to procure a little milk, we found the inhabitants ill-disposed to oblige us. The family consisted of an Indian, his

wife, and a couple of children, and their grandmother, who with their mother scampered away from us. The man, with a jealous and suspicious look which plainly desired us to be gone, answered all our inquiries, with "*no hay,*" "havn't got it." Their angry black mongrel curs yelp'd us off the premises. The dwelling pictured intolerable wretchedness amid a most romantic seclusion.

On the next day's journey the aspect of the country seemed to change for the worse.— It became more dreary and barren as we advanced, and generally consisted of plains bounded by lofty mountains. In the evening we arrived at an Indian town, called Humaguaca, about six leagues distant from the spot where we slept. We now refreshed our mules with as much maize as they would eat ; no other grain could be procured. The post-houses on the road to this place were miserable beyond description. The first from Jujuy is Yolo Río, four leagues ;

Bolaen, five; Homillos, nine; Guacalera, six; and Humaguaca, six; total thirty leagues, or ninety miles of ascent almost all through basins. Population is scarcely perceptible the whole of this distance; nothing can be conceived more miserable; no grass could be obtained for our mules, and few necessaries of any kind. We put up in a large out-house, which we shared with a family from Salta, that had been compelled to remain here some months on a journey to Potosi, from its chief being taken ill. Nature was his only doctor, and he lay stretched on the floor patiently suffering. We were able to afford him a strong dose of calomel, for which the ladies were especially thankful.

Humaguaca was itself completely gutted by the forces of Olañeta. At least one half of the mud houses had neither doors nor roofing; the soldiers having burned for firing every thing, in the shape of door-post, joist, or beam, they could lay hands upon. The population

does not exceed three hundred souls. The alcalde and governor, Colonel Pastor, seemed to be the only person in the place who possessed lodgings even commonly comfortable. He took charge of one of our mules which was knocked up, giving us a receipt. This gentleman had a considerable flock of goats, intermingled with sheep and hogs, upon the heterogeneous system already spoken of. Having succeeded in procuring provisions, our peons furnished us a good supper, here we renewed our stock of bread, and obtained some of the country beverage, a kind of beer, called "chicha," which although made from maize (chewed by old women, as some say, and fermented) went down with a good relish, for the palates of sun-burnt thirsty travellers are by no means nice among the wilds of the Andes.

On the 28th of September, we left our invalid companion apparently something relieved, returned thanks to Col. Pastor for his civility,

and continued our course along a stony road, amid rugged barren ridges, tedious and monotonous, being a succession of the former dreary though majestic scenery. Our elevation to an attenuate atmosphere, now shewed itself for the first time in difficulty of respiration. This oppression the natives call *puna*. We travelled ten leagues in order to avail ourselves of a green sward for the mules upon the river's margin, the wind the greater part of the time blowing a hurricane down the gorges or funnels of the mountains. We encamped at night in good fellowship together, with far better entertainment for man than beast.

Having on the 29th, it may be truly said, girded our loins afresh, and passed the uppermost link of the chain of basins, we commenced our ascent of the Abra de las Cortaderas, in the romantic quebrada of which, the spring (as our arriero informed us,) of the river Jujuy takes its rise. At this (Oja de Agua) we halted, re-

freshed the mules, and filled our water utensils, on a calculation of not obtaining any more, till our arrival at Guayaca, a second day's march distant.

The Abra de las Cortaderas is probably the highest mountain between the Cumbre of Chili, and the Chimborazo of Quito, judging from the difficulty of respiration even in its strait.

The pass of the Abra is bounded on its sides by stupendous ridges, from which old Time has precipitated immense fragments of rock, impeding the traveller's progress, and rendering it more agreeable for him to crawl along, half breathing, by the side of the mule, than to afflict the animal with his weight.

The Cordilleras immediately above us, though precipitously grand, instead of rising in peaks, was rounded on the summits, and to my surprise, these summits appeared feather edged, as if planted with a broken line of firs, or as

though a military corps was making a reconnoissance from the clouds. The improbability of any object like a man being there, much less any thing approaching a tree, induced a closer scrutiny, which determined this beautiful pencil margin in the heavens to be herds of Guanacos, some standing in ranks, others couchant, watching the intruding strangers on their territory below. In one of the abrupt windings of the pass, we surprised some of these beautiful creatures drinking in a cataract stream, the noise of which permitted us to steal so near upon them unobserved, that we might easily have shot one with a rifle. The eagle-like rapidity with which the animals, on catching a glimpse of us, ascended the mountain, exceeds belief.

Our descent from this pass cost us many hours, and ushered us at length into a wild warren-like country, the region of innumerable Peruvian deer, of several species, besides the Gua-

naco. The traveller is amused by the intelligent gaze of these animals, approaching to within a short distance, as if to inquire why he encroaches upon their solitary reign, and then at the suddenness and fleetness with which, following the leader, they scamper off.

Our position at night was under the lee of a deserted and unroofed rancho, just sufficient to protect us from the sand which the wind raised from the desert on the line of approach. We had filled all our water utensils in the morning at the spring in the Abra, our peons, knowing that the turbid brook, to which we had now come, was scarcely palatable for the mules. Of stunted heathy shrubs, we found sufficient to boil our kettle, and to the mules was apportioned some maize, which we had secured at Huma-guaca, but so trifling, that it might be termed a fasting time with the poor brutes. u

As I was attending to my own particular mules, with a view of keeping off encroachers from

their food—one of them dealt me a tremendous kick, which I at first feared had broken my thigh : it was as much as to say “ why did you bring me here to starve?” This stroke of reproof kept me in pain all night. We never know what we are equal to till tried : had I been at home, the mulish compliment would have laid me on my couch for a week. Now, there was nothing for it, but to be lifted astride again, and grin and bear a complication of evils well enough to suffer for once in one’s life, by way of trying a man’s philosophy if he has any, adding the intense solar rays, clouds of flying sand, and the inconvenient effects to a disabled limb of a severe jolting. Whilst reflecting upon my ability of sustaining myself for many leagues to come, Heaven brought General Alvear to my relief, who had overtaken us. Seeing me fatigued, and in pain from the mule’s motion, he very kindly lent me one of his horses, by which I got over the road with comparative ease, and we

reached the town of Mojo about three hours earlier than the mules, scarce need I add, with incalculably less wear and tear of the flesh and joints.

All the provender in the town being in requisition for the general, we started in the evening, and arrived about one o'clock at the village of Morales, where we found Col. Dorego who had also overtaken us and passed our camp during the night. Col. Dorego seeing us in distress, interested himself with the owner of a farm to give us accommodation, and provide food for our mules, of which the animals were dreadfully in want, and I felt deeply grateful for the Colonel's kindness. I had forgotten to notice the reception of General Alvear at Mojo by the authorities. The alcalde did the honours of service behind him at the dinner table, a specimen of old Spanish customs towards men of superior station, still existing in every town or village, where much of the spirit of that

people prevails. The utmost devotedness is shewn to every man of rank in such places, and when he travels he sends to the alcalde, who instantly proceeds to impose contributions upon the people for providing him refreshment, attendance and dinner at their expence, and not only for the biped himself, but for all the quadrupeds and bipeds he brings with him. It is probable General Alvear did not permit this now free of charge. Couriers having announced the general's approach at the village long before, every bit of pasture and barley there, was scraped together and stored up: thus had it not been for his kindness in sparing our animals a bait at Mojo, I know not how we should have reached Morales. I have reason in good truth to acknowledge my obligations to General Alvear.

We quitted Morales at 8 a. m. October 1st., and getting into the high road, joined the general, and accompanied him *ensuite* on horse-

back into Suipacha, where we found the inhabitants of this Indian town (for the inhabitants are nearly all Indians), turned out to receive him by order of General Miller, in whose district command it lay, Suipacha being the frontier town towards Potosi.

The first part of the ceremony of reception was curious, as shewing from this relic of past times, how abject must have been the servility of all orders to the triumphant church. The general, according to the old custom, took the hand of the curate, which he saluted. He then accompanied the minister to mass, celebrated as an offer of gratitude for the general's safe arrival thus far on his journey. The impression of the scene on my mind was that it seemed highly characteristic of the dissimulation which prevails in society, wherever such farces are kept up. It also exhibited a specimen of the insincerity which exists among different political parties in South America in their inter-

course. General Alvear, who is really a high spirited, noble character, felt inwardly ashamed at the scene, and the effect produced on our minds at this servile act of devotion, for he excused it to us afterwards. Such however is the hold which the long dominion of the church of Spain, and the arts of the priests have still got upon the Peruvians, that policy is needful from the Porteños towards them, especially as the latter are viewed with jealousy by the former. The ceremonies and reception of the general by the senior curé, were the result of gross hypocrisy, voluntarily bestowed with the lips while the heart perhaps cursed the object of their benedictions. Long indeed will be the time ere the effects of the education introduced by the Spanish priests will disappear in Peru.

The country here presented a complete mining aspect. Helmes, who had examined it, says, "on the mountains in the neighbourhood of Mojo, a great many veins of quartz,

containing gold, yellow copper ore, lead ore, and iron spath, whose terminations appear above ground are found." He also mentions "alluvial depositions containing gold" as found all the way from hence to Potosi. In confirmation of his remarks, we noticed several dilapidated mining establishments on the bed of the Suipacha river: and in one solitary instance we saw the proprietor at work on a Lavadero. This property was situated in a basin similar to those before spoken of as common to these mountainous regions, about a mile in circumference, with a noble stream rushing through the centre, of which the observer is at a loss to discover the entrance or exit; yet at the lower end of the basin a dark passage appears, only about twenty feet wide, through which nature seems rather to have hewn a way than forced one by the torrents. Had the rock been sawn down on either hand, the perpendicular could not have been better kept; it is on each side a perfect wall, its

appearance striking the mind with astonishment.

This impregnable pass—impregnable with a few guns and men, the old Spaniards permitted General Belgrano to march through without resistance. It is an impervious barrier against a hostile army passing from the provinces of La Plata to Peru—none but the old Spaniards would have neglected to defend it: but their measures are always unaccountable.

Suipacha is distant from Humaguaca forty-five leagues, eight from Mojo, and five from Tupiza; all along this line of road, the pasturage is bad, and forage difficult to be obtained. Thus the poor animals have not merely to contend with toil and bad roads, but with want of food, and hence it is so many of them are lost. According to the regulations of the country, each mule should carry from twelve to fourteen arrobas. No mule, however, on this route should be thus loaded; experience shews that ten arrobas or

250lb. is full lading enough, let the mule be as strong as he may. The arrieros, or persons who transport merchandize this road, will not take charge of a load of more than twelve arrobas, or three hundred weight. It is always most advantageous when the traveller has much baggage to transport, to consign it to the arrieros because they so well understand the mode of transport, and will answer for all that is confided to them. The charge from Jujuy to Potosi is thirty-five dollars, but less if a good quantity is thus sent. The distance is one hundred and thirty-three leagues or three hundred and ninety-nine miles of the worst road in the world. There is another road from Jujuy to Potosi, called the "depeopled road," because there are no inhabitants to be found upon it. Nevertheless it is comparatively good, easy to travel, and lies across plains. When tranquillity is completely restored, they talk of opening this road by the establishment of posts.

We journeyed along the course of the Suipacha,

amid the majestic scenery of the Angostura of Tupiza, a strait between mountain ridges of great grandeur. We reached Tupiza late in the evening of the 2d of October, where we found accommodation had been provided for us at the house of the late General Olañeta. Bag and baggage, we all jumbled together into the common-hall. Too fatigued from the intense heat of the sun for so many hours, to care about any refreshment but rest, a few skins on the floor seemed more inviting than the best dinner, upon which intending to sleep for an hour, I made the deep repose of the whole night.

October the 3d I dined with, and took leave of General Alvear who went forward to Potosi; and here I parted with my excellent travelling companion, Mr. Brown, who availed himself of the general's offer to join his party. Our mules were in so wretched a condition that I began to fear we should be detained longer than was agreeable. On the following morning Don Mi-

guel Altube, the cousin of the late General Olañeta, breakfasted with me. This old Spaniard was exceedingly cautious and reserved. After much difficulty he consented to our examining the "Ingenios," and "Trapeches," in the town, and accompanied us to them. All his aim seemed to be to enhance the value of the mining property, which I combated by reference to the destruction every where apparent, both in the machinery and premises. I thought it, however, an object of no small importance, from the known character of the works, to secure a footing now which might give us a hold if deemed advisable hereafter. My companions were diligently employed among the old miners of the place in obtaining information to estimate their worth. It appears that General Olañeta had expended nearly half a million of dollars in establishing a "socobon" or adit, to drain off the waters, and in different mills and buildings, &c. &c. but the whole had been mortgaged for

money to carry on the war in which he perished. On the 4th we accompanied our old Spaniard to Chiromo to examine that extensive and rich possession. We ascended by mules to within a short distance of the mouth of the mine. The first thing that struck our attention was the enormous mass of refuse ores which lay there in a heap; and on descending the inconvenient passage to the chambers of the mine, we found great quantities strewed about in heaps upon the platforms, especially in what may be called the hall, an excavation gloomy and magnificent in size, inspiring the idea of its being the ante-chamber of the palace of grim Pluto himself. The ladders by which we descended were of the rudest, and not the safest fabric, being simple straps or cross foot-pieces resembling bamboo, fastened with hide lashings to banisters on either side, looking half perished. In some places the steps were nearly perpendicular, and of themselves evince, what little attention had been

paid to the interior economy of the mine, and the security of the labourers, who with their enormous loads on their backs had to pass up and down in a posture nearly double. The shaft was narrow, dark, and shelving, and the galleries leading to the lodes frightful enough to a person unaccustomed to them, and to their narrow, silent, gloomy windings. Sometimes long, frightful echoes reverberate, or some dark gulph opens close to the feet of the explorer, and the loose stones rolling down into it are heard sounding fearfully as they fall bounding from the rugged sides. Perdition is in such places certain upon one slip of the foot from the shelving paths. Having descended into four of the stories of chambers, if I may so express myself, our lights began to burn dimly, as though we were approaching mephitic vapour. Our guide told us it was "*nada*" (nothing), but the oppression was very great before from inhaling the hot, arsenical atmosphere; and as I felt it in-

crease, I did not like to take the word of a guide for it, and we returned.

Unhappy men, thought I, how many of you have laboured here for life under compulsion, or at the best, for a pittance of two shillings a day (four rials)! How many have worn away existence here in the very bowels of this seeming hell, where I can hardly respire! What would a well-fed, ale-drinking, English miner say to this?

It was explained to me by Don Miguel that the enormous expanse of the great "sala" or hall, as they called it, the roof of which was without support, came into this state from the crumbling down of a supporting column which had been too much attenuated below. It fell in the night, and produced from its wreck eighty thousand dollars to the proprietor. Fortunately the arch did not give way. I asked Don Miguel if he considered such a vault, in its present unsupported state, to be secure—if it could hold up

long; "can't say," was his cool reply, with the usual shrug of the shoulders. Talking of the last great vein, for which an enormous sum had been expended in making a socobon to drain it dry, Don Miguel observed that there the silver ore was found disseminated throughout one enormous trunk of "broseria" or matrix, and not in numerous veins or branches, as is the case in general with lodes of this metal.

From these works my scientific companion, Mr. Scott, and I, proceeded to examine the "estacas" of Don Gregorio Burgos, branching from another part of the great hall of the mine, as it would be necessary to secure them in case of the failure of the Olañeta property, which might lead to the ultimate possession of the whole mine by the company. We there found a lode resembling that of the inundated Conception. Mr. Burgos the proprietor was in the habit of taking a few peons and going himself into the lode at times, and working it. He

did this a few days before, when having got out as much silver as gave him a loaf of piña, or pure silver, he was not expected to renew his labours, until he had gambled it away—thus do these people act! He was not now at the mine, so we had the opportunity of choosing what specimens we pleased, from the lode and from the “refuse” ore as they call it, which differed not a little in value, from his own estimate, of from three hundred to three hundred and eighty marks per caxon of fifty quintals, (100 cwt., English each.) This difference was attributable to the miserable mode in which these petty miners reduce their ores; their loss by waste must be enormous from their miserable method of amalgamation.*

On descending the hill from the mine, we

* The assay of samples fairly taken by the Chilian Company's assayer at Coquimbo, gave three thousand eight hundred marks per caxon, of sixty-four hundred, and the refuse tried here yielded in London seventeen per cent of silver!

visited the great socobon or adit designed to drain the inundated veins. This work would be deemed a very lubberly one by English miners, but they seemed to have taken the right direction, which is all they care about, convenience, neatness of work or health, being never regarded as of any moment. We measured this adit, and found four hundred yards completed, and about one hundred and thirty only to be finished, to reach the water in the great vein, whilst fourteen yards further, cut laterally, would reach the next richest. In making the adit, several small veins worth working had been intersected. The death of Olañeta and other troubles, had however arrested every thing.

Having carefully examined the works in every possible manner, and furnished with specimens of ores for trial, we descended to the village at the foot of the hill, and refreshed ourselves at the *pulperia* of the mine. There I purchased

some of the rudely manufactured ornaments of the peons, which they offered for sale. They consisted of silver ear-rings and spoons, which the Indians use for various purposes. The way in which these poor people exist, and even a considerable portion of the more indigent labourers of Tupiza also is by helping themselves. The proprietors of the mine seem tacitly to yield consent to what cannot be avoided. Thus the ore is taken away by men who go at their leisure for that purpose, and increase the dilapidation of the works.

Among the ornaments offered for sale, were a pair of gold ear-rings in the shape of crosses, upon which I inquired from what part of the workings they were derived. On hearing this Don Miguel gave us an account of the Lavaderos, with which the plain below abounds, and he engaged to show us some ores on his own property in the morning, but with a direct pledge to secrecy on our parts. We renewed

the subject on reaching his house, about half a league from the works; and particularly as to the gold deposits; the substance of what I had learned from him, kept me awake a portion of the night.

The next day, the 5th of October, the sun never rose upon a nobler highland picture than that which he enlightened as I looked from the window of my bed-room, commanding a view of the lofty mountain tops, burnished with his beams, and the plains spread far beneath. I hoped to have been up before the old Spaniard, designing, in company with Mr. Scott, to examine his estate, of which Don Miguel wished to dispose that he might return to Spain, but I was anticipated. After the customary morning's salute, I renewed the subject of the preceding evening, and proposed to accompany the owner to explore the hidden treasures of which he had spoken. I found, however, that he had repented of his promise. Mr. Scott,

who knew the character of the people better than I, whispered me that his fears arose from a suspicion we should betray him. We therefore assumed an air of indifference, and proceeded to an examination of the papers relative to the Olañeta property in conformity with the advices in the widow's letter to him, previously transmitted. These papers he had contrived to secure from the search of the military, who had ransacked his house, and even broken up the floors in quest of plunder and documents.

Never shall I forget the apprehension of Don Miguel at this moment, and the suspicions that were depicted in his countenance. He even hesitated at first to produce the papers from their concealment. Breakfast was brought in, which I affected to take with a show of disappointment, assuming to feel hurt at the old Spaniard's want of confidence. He now changed his tone a little, and begged to be excused for the very natural propensity he had to believe in such times, that

men 'did not deal fairly with each other.' I observed it was very excusable towards persons not so introduced, but it ought not to apply to us who were confidentially made known to him, upon a business in which the interests of his cousin were so intimately concerned.' I observed that he was but an agent in the affair as well as myself; I begged him to examine the letters of the Señora Olañeta, and Dr. Redhead, again. He did so, and then going to his writing desk, brought me 'an ornament which the general had about him at the time of his death. This he presented me as an offering of friendship, saying, "if there be an honourable man on earth, it is Dr. Redhead, and I feel I am secure with a person he has recommended to me — besides, there is honour in Englishmen."

I thanked him for his compliment; and filling a glass of brandy, after the custom of the country, to keep down the garlic stew—"Here,"

said I, "is the memory of General Olañeta who fell bravely in his master's cause!" This decided the point; Don Miguel ceased to doubt any longer. We went out, and he conducted us to the concealed Lavadero, situated in a quebrada or river-bed, and filled up with stones and rubbish at the mouth. While Mr. Scott was removing the rubbish, the old man was casting a suspicious glance as far as he could see around, lest any one should approach. Observing his anxiety, I said it was of no present consequence, we would take another and more convenient opportunity. Mr. Scott remarked that he could see the character of it, and from the statement of Don Miguel, the quebrada, and perhaps the principal part of the surface of the plain, had below it the usual alluvial deposit, containing the gold washed from the mountains, on which *stratum super stratum* had since accumulated of a different nature. We returned to Don

Miguel's, mounted our horses, and rode back to Tupiza.

The estate of Don Miguel was situated in one of those romantic spots which many have described in works of imagination, but few have witnessed in nature.

Irrigation had here been adopted at a vast expence—perhaps of forced labour rather than of money employed. A canal had been cut through the base of a castellated ridge of hills, by which this shrewd old Quixote availed himself of a stream and turned it into his estate, from the river a quarter of a mile distant; with this he had rendered fertile a considerable tract—the aqueduct alone exceeded in value what he now asked for his whole estate and mines, consisting of some valuable estates in the Choromó mineral district.

Having made the necessary arrangements with Don Miguel, respecting the late general's possessions, and engaged him to accompany me

to Potosi with a view to complete the title, I returned to Tupiza, and remained occupied until the 9th in various mining business, by which time our mules were sufficiently recruited to proceed.

Tupiza is seventy-four leagues from Jujuy, and about fifty-seven from Potosi; and owes existence to the celebrated mines in its neighbourhood. The population though reduced is still considerable, and bears characteristic marks of a hardy and enduring race, well adapted for their laborious calling. Every man at Tupiza is more or less a miner. Since the troubles and the death of General Olañeta, the principal proprietor of the Chiromo hills, the stoppage of the mines in consequence, and the cessation of industry are too visible. The town is watered by aqueducts which bring it from a river about a league and a half distant, within half a league of which the majestic and rich Choromo mountain rears its towering head. Why the town

was not built in the part of the plain nearest the water and mountain it is not easy to comprehend: the vicinity to the mines would have saved time, and to the water the enormous expence of the aqueduct—the eternal “*quien sabe!*” was the only answer I could obtain to a question or two on this point from the most intelligent persons. Between the mines and town, the plains, which are extensive, contain a few scattered patches of cultivation, very pleasing to the eye; but why so little land is tilled, when every inch ought to be rendered productive, it is difficult to comprehend: it would very soon repay the capital required from its cultivation, were the Choromo works to be resumed.

CHAPTER III.

Journey to Potosi continued—Estate of the Conde Oploco—St. Jago de Cotagaita—Remarkable Tree—Population of Cotagaita—Magnificent mountain Scenery near Rio Chico—Indian Character, Appearance, Mode of Government, &c.—Agua Caliente—Travelling Indian—Reach Satagambo—The Llama—Approach to Potosi—Dreary Appearance of that City—Plants of the Mountain Region.

ON the 10th, after breakfast, I departed with Don Miguel Altube and Mr. Menoyo, our mules having set out the preceding evening. We journeyed about thirteen leagues through a grand and beautiful country, belonging to an old Spanish Don, the Conde Oploco, whose territory once extended over eighty square

leagues. His abundant fortune enabled him to purchase of the church the reversion of a seat in the highest heaven, by an outlay of 80,000 dollars, in building and decorating a small chapel, a comparative room in size. We slept at an Indian rancho, where as usual they denied us every thing, till by Don Miguel's address, and a private signal to them, we obtained all we wanted. These poor Indians were still *godos* to a man, and so devoted to the cause of Olañeta and the royalists, that a person of the opposite party can get nothing but by force; here we were shewn by the Indian a specimen of silver which on assay gave nine marks of silver and fifty per cent of lead per caxon. Between Tupiza and Cotagaita, the action of the water is conspicuous in alluvial ledges at the bases of the mountains; their summits are at the same time pinnacled and turreted, presenting the appearance of ruined abbeys or dilapidated Moorish towns. Nothing

can be more sombre and melancholy than these natural castellated eminences; indeed, I cannot at all convey the impression this scenery produced upon my mind.

On the 11th of October we arrived at St. Jago de Cotagaita, an inconsiderable place in point of size, although it is the capital of the mining province of Chichas. We found here the head-quarters of the troops that had destroyed Olañeta. We halted and took our refreshment under the shade of a tree very remarkable on two accounts; in the first place for the numerous miracles which had been performed under it, and in the second, for the number of little warblers that sheltered in its branches. These birds crowd it throughout the entire year in myriads; they are so small and nimble in their motions, that the eye can scarcely catch them; what species they are, I know not for certain; but from their plumage and notes, they resemble the small

Indian Abadevat, (*Fringilla Amandava* of Linnæus); their song is in unison, and forms a sweet, melancholy music. The inhabitants cherish these little songsters almost with religious respect. No offer could induce the boys, who came to stare at us, to secure one for a specimen.

The population of this place does not I should imagine exceed thirteen hundred. The country around is mountainous; it is only well irrigated near the Rio Grande. I was introduced at this place, to a widow lady, who had lived in great poverty for many years; but having sold a mine at Portugalette (which luckily for her had just got into *boya*, or prime yielding, after nearly ruining all her family, and being the grave of her husband), for 50,000 dollars, had now become queen of the country. The 12th. after passing the Pueblo of St. Jago de Cotagaita, our road lay along the banks of the Rio Chico, through a continued range of

magnificent mountains and basins, such as I have before mentioned.

The population along this line of road is entirely Indian, under a regular Alcalde government, and they inhabit the luxuriant borders of a stream, which is irrigated and cultivated with even Chinese economy. It struck me as curious too, that their dress resembled the Chinese, as well as some peculiarities in their manners. During the mid-day we refreshed ourselves near the dwelling of a Cacique under the wide-spreading branches of a fig-tree, which yielded a grateful moisture to our sun-burnt lips never to be forgotten. The station of this family seemed to be of the highest order of its tribe, judging from the donative ornament worn by the mistress of the house, a mark of Indian consideration and consequence. It is an implement applicable to three purposes, namely, a pin to braid the hair at one end, serving also as a fork, at the other spoon-shaped and

used as such. In the present instance this ornament was gold, but of rude workmanship. A child about four years old was sitting feeding itself in the mother's lap, while the indefatigable parent (for these people are rarely idle) was busy extracting from the child's head, and exterminating, as monkeys would, insects which it is needless to name.

These passive and meek people appear to be content and even happy, under their caciques, who stalk about with the insignia of their rank, (a gold headed cane,) showing all the airs of a Spanish alcalde of the old school. They are every where obeyed implicitly, and the traveller to obtain any thing on his road, should (following the custom of the old Spaniards,) send on his arrival for the alcalde, and with a little "brief authority," if his retinue correspond, he will obtain all he wants. By a different mode of proceeding he must put up at some detached rancho, and find every thing denied him. If

he offer money, "no hay," is the reply; they won't trust to his parting with it. He must starve or help himself, and pay the price demanded for the articles, which the peons upon rummaging find here and there secreted. The real truth is, that these poor creatures have been so oppressed between patriot and royalist in the recent warfare, being seldom or ever fairly requited for any thing, that they naturally withhold the little they possess, or keep it out of sight. They seemed astonished at our paying them for what we used.

The Indians are generally accompanied by a black cur kind of dog. The "Perro Negro," as they call the animal, is his master's friend through life, and the destined pilot of his voyage to the promised Elysium hereafter. To arrive at this happy land, rivers are to be crossed, and the dog is to convey over his master's provisions, a store of which is always inhumed with each upon his decease.

There is a great resemblance in feature, between these Indians and some of the people I have seen in the East, especially the mixed breed of Chinese and Malay in Java. The high cheek bone, sharp angular eyes and small beards agree. That both are equally submissive is natural, seeing that the Dutch outdid the Spaniards in the science of bringing that unhappy part of mankind, whom they subdued, to the most abject subservience. It is in favour of the Spaniards, that they seldom resorted to corporal punishment, as the Dutch planters of the old school seemed to feel a pleasure in doing ; but they rivetted the chain of slavery firmer, by imbuing their slaves with superstition. The Spanish slave is the best regulated, best mannered, and most content of any in the world.

These Indians are very industrious. The men cultivate the land or look after their flocks, from sunrise to sunset. The women are busied

in knitting, spinning, weaving, and various domestic occupations. Idleness is deemed almost a crime amongst them. They are robust, but by no means so athletic or stout as the Malays and Chinese, and I observed they decreased in stature as we approached the more inhospitable regions of Potosi.

The system of the royal or king's decimos, in shape of a fine for tenure of the lands they occupy, is still collected from them, and the caciques made responsible for it. Their mode of ploughing, is that which prevails every where in South America, by bullocks and the simple wooden plough. The most labourious occupation of the women is that of pounding their maize, which is done with a pestle of wood in the trunk of a tree hollowed for the purpose, and secured in the ground. In this the grain is mashed small, and the husks are then blown off. The meal is used either to thicken soup, or eaten raw with water. Sometimes, to please

the children, they parch it. The operations of thus pulverizing their maize, costs two or three hours of the hardest labour I ever saw performed by one of the softer sex. A mill would grind as much in half an hour as these poor creatures can beat out in a couple of days.

The dress of the caciques is the Creolian blue breeches, open at the knees, white cotton or worsted stockings, and silver knee and shoe buckles of large dimensions, more ornamental than useful. They wear a jacket or poncho, and on some even a coat may be seen. Large silver spurs and a queue are indispensable. The head apparel of the working class so much resembles the Chinese, that I almost fancied myself in the paddy fields, in the vicinity of Whampoa. A curious circumstance was related to me by an old Spaniard, and afterwards corroborated, respecting the Indians, namely, that on one of them being sent on a special journey requiring dispatch, and additional remuneration,

ration, he would go to the priest before he set out, and apply to receive fifty lashes or more, according to the stimulus required to execute his task ; as if to remind him of the necessity of his completing it, by the smart he carried with him.

The mode of digging among this people is very curious and ungainly. Four Indians are employed in the operation, the work of a single individual with us. The implement they use is a simple wooden spit or fork, with a projecting arm let in about a foot from the point, by which they force it into the ground ; the quantity of earth thrown up by a unity of these instruments, which they press into the ground to the tune of a song, I observed to be about equal to what a common gardener's spade would throw up ; the celerity, however, and precision with which they worked, was truly surprising.

On the 13th and 14th of October, we

travelled over a mountain road, presenting every where a desert waste of argillaceous slate. On passing the summits of the road, we saw in the highest elevation of each, a pyramid of stones, supporting a cross bespattered with the coca plant, which is the Indian's tobacco quid, upon the expressed virtues of which he will sustain nature for days together, journey patiently up the mountain's steep, travel his forty or fifty miles a day, and drop it as his tribute, at the foot of these religious memorials.

On one of the steepest hills we passed over near Caiza, I examined a boiling stream called Agua Caliente, in the vicinity of which are sundry baths, which were erected either by Olañeta, Cantarac, or Valdez, for the use of the invalids of the army. The mineral water issues forth in a boiling state from a bed of limestone sulphurated. I drank a pint of it from a rude bowl which nature has constructed to receive it in its course, and from whence it overflows, and

runs down to the valley below where the baths are placed.*

From hence to Potosi the hill travelling appeared almost interminable. The heart often seemed to sicken on finding the bleak summit of mountain in front only the herald of another in its place, when the traveller expected to see the long-wished for city. It cost me fifteen hours, on a miserable hired palfrey, to travel twelve leagues, and glad enough I was to escape from my mule with even such an exchange. Mr. Menoyo, with the carga mules, did not get over that distance till the following morning.

At three p. m. we halted at the village of Caiza, and passing the night, set off very early the next day. After a fatiguing journey among a succession of mountains which arose "Alp

* Mr. Helms says this spring is impregnated with hepatic gas, and has small pieces of brimstone, and a fryable clay full of crystals of alum, inferring its properties to be derived from a stratum of burning sulphur in the aluminous slate from whence it bursts forth.

over Alp," till it seemed as if we should never reach, much less surmount the highest point of our day's journey, we still continued to toil on. On our way we met many travelling Indians, carrying a wallet across their shoulders, the contents of which were pieces of gum, and drugs of different kinds, with which it is said they commence their journeys, and keep up a traffic on the way. They are known to extend their wandering trade in this manner even to the Brazils, but I could not find with what goods they came back. My informant told me he thought with nothing but an old musquet, and a little powder, which they dispose of in their own country for some consideration, valuable only to themselves. It struck me that as these poor creatures still cherish a tradition of being one day again free, this kind of pilgrimage out and home, among remote tribes, looked like the acting in concert for some secret object, and for preventing the connection with each other's

tribes from being broken. It is remarkable that "yes," or "no," is all the reply that can be elicited from these poor wanderers. Often the answer is the affirmative when it should be negative, as if they were idiotic or could not comprehend the language in which you addressed them.

We stopped to refresh ourselves at Satagambo, six leagues from Potosi, where we procured the luxuries of new laid eggs, and a dish of Indian "chupi," (a species of curry) this was a fillip to us, spare feeders as we had been, for the rest of our journey. Here I first saw the Llamas,* or Peruvian sheep, and soon afterwards met a whole troop, marching two and two, and looking like

* These are the most docile creatures in the world, as well as the most beautiful. In passing them in the street they will put out their heads to your hands, as if begging corn. It is singular that these animals, if passing under an arch to which they are strangers, however high, always bow their heads. This extraordinary movement, I presume, is a peculiar defect in the animal's vision.

cavalry at a distance, their heads being held up nobly, and moving along full of state. In form they are the handsomest, and in conduct the most gentle of any animals of the species I have ever seen.

A considerable descent from Satagambo or Chaquilla, brings the traveller to an inclined plane, in the horizon of which the long-expected hill of Potosi rises. By a succession of steps, ascending, you at length reach it; but a feeling of tedium is experienced almost unsupportable, so slowly do you seem to approach its base. On the plain at its foot innumerable Llamas and Alpachas browse, and a part of it is irrigated by a delicious spring; little in quantity, it must be confessed, as the source is not larger than a gallon kettle; but parched as we were, the water was to us perfect nectar.

From a declivity on the south-east side of the hill the city breaks first upon the view, but with no very inviting aspect, even to a weary-worn

traveller, having a sombre, dreary appearance which can scarcely be described. The view of this hold of Hell and Mammon is panoramic ; it is without fire and brimstone perhaps from lack of fuel. The turrets and edifices rise heavily and ominously, while not a bush or streak of green enlivens the neighbourhood of the ugly and crime-stained capital. It looks like the city of a prince of sin, strange, desert, solitary, mysterious ; a place of evil enchantment.

The vegetable productions most conspicuous in the elevated mountain region through which I had passed before I entered Potosi, were the torch thistle, prickly pear, and carob bush of a stunted species. In the valleys grew a beautiful shrub, denominated by the natives, *Brea*, and a willow of an aromatic property, the flower of which resembles the elder, the juice serving for a species of wine. From its resinous solution the natives derive a useful aperient medicine. For the innumerable flower-

ing shrubs I saw on the mountain road I could discover no name in the country, even though I gathered the seeds of many, and inquired afterwards respecting them. On this route the already mentioned thistle (*Cactus Peruvianus*), grows to thirty or forty feet high, often on a single stem, though generally four or five branch off at the root. The fences of almost all the "corrals" are formed of this thistle, and the interior is converted (after the pulpy part is taken off, which is armed with a prodigious quantity of formidable spines, so that birds cannot touch it) into joists and door panneling. This thistle is common to all South America that I have visited, and of great height also, in other parts, but no where any thing comparable in size to the giants of the Peruvian mountains. I remarked in the more exposed and bleak situations of the cordillera, where these huge plants were exposed to the south-east winds, that they were coated on the

exposed side with a species of wiry moss, approaching in consistence the covering of the dried husky shell of the cocoa nut. On the unexposed side there was none. The stem was not so covered. Whether this covering was parasitical or indigenous I was not botanist enough to decide.

CHAPTER IV.

Arrival at Potosi—General Miller—Eminent characters at Potosi—Introduction to Bolivar—His character—Sucre—Miller—Don Carlos Alvear—Mining monopolies—Illness—Sickness of M. Menoyo—Festival of La Rosario—Visit to Bolivar—Setting out of the Libertador Chuquisaca.

ON the 15th of October I arrived at the house of Don M. Ybarquin, in Potosi. Soon after my arrival Major Smith, an aid-de-camp of General Miller, called to request my company to a ball, of which he was doing the honours at the cabildo. The jog-trot pace of the mules through the day in the scorching sun gave me little relish for such an amusement. I went, however, to meet my old friend, and was

received with great cordiality. The last time I saw him he was my guest on board the *Windham*, as Captain Miller: I now found him a general of great consideration in the patriot cause. At this scene of gaiety, forgetting recent animosities, the victorious patriot and vanquished royalist met in peace in the same circle of amusement. I found here the illustrious Bolivar, the brave Sucre, the politic Alvear, the gallant Miller, Generals Santa Cruz and Urdininea, in short, all the heroes of the Andes. A galaxy of military splendour and dazzling uniforms, which seemed to excite the highest admiration among, and to awaken all the attractions of the ladies of Potosi.

I was now occupied in arranging our household, at a dwelling provided for us by Señor Ybarquin, and in making calls upon different individuals. On Sunday I heard the *Misa de Gracia*, and the following day was to have been introduced to the *Libertador* by

General Miller, but was prevented by the ceremony of the reception of General Alvear, a public affair. I now found that emissaries from Buenos Ayres were in treaty for the whole of the mines in Upper Peru, and I determined to do all I could to thwart their object.

It was on the 18th of October, that I was introduced to Bolivar. I cannot say that I felt not, at the moment of introduction, the peculiar sensation which the presence of a character who had filled the world with his deeds, naturally inspired. If, however, I had any sentiment approaching to humility on the occasion, arising from awe inspired by the moral influence of the man, it was speedily dissipated with the mode in which he received me, with a cordial, downright, English shake of the hand. It is the historian's business to do justice to his general character ; I can only describe how I saw him at a short interview, when not under the influence of excitement of any kind.

As a man, he had, in my view, achieved more than Washington. He had delivered his country without foreign assistance, and under every possible disadvantage. No France had tendered her armies and her wealth to aid him. No Franklins, and Henrys, and Jeffersons were at his right hand, nor the stern, uncompromising virtue of a New England race. The ignorance and utter want of experience of those around him, both in civil and military affairs, threw every thing upon his genius; he dared nobly and succeeded. His talent in the field, and his invincible perseverance in spite of every obstacle, do not surpass his skill in raising resources for war, and impressing his fellow citizens with confidence in his ability and respect for his government as a chief of the people. How he kept down and controuled faction, quelled mutinous dispositions, and having sacrificed every shilling of his fortune in the cause of his country, persuaded others to follow his example,

is a problem difficult to solve. In these respects no one ever surpassed him. In the movement of larger armies, with better formed materiel, he may have been excelled ; but in the passive qualities of the soldier, the rarest found united in the military character, few, or none have equalled him. Hunger, thirst, torrid heat, mountain's cold, fatigue, long marches (in respect of distance, from Carraccas to Potosi, from the centre of the northern half of the torrid zone almost to the extreme limit of the southern, on one occasion) in desert and burning sands, all were borne by him and his followers with a patience never outdone by similar, or any other means, and crowned with complete success. He has been accused of ambitious views towards absolute power—time can alone settle this point. He has as yet shewn no such disposition, but rather the reverse.

The person of this extraordinary man has perhaps been before described ; he is in make

slender, but of an active and enduring frame, about five feet seven inches in height; his features rather sharp, nose aquiline, and expression firm, but not striking in the way of intellect: moreover, his face generally bears marks of hardship, and is care-worn. His eyes are penetrating rather than intelligent, and he seldom suffers a stranger to get a direct view of them; at least I found in the interviews I had the honour to hold with him, that this was the case so much, that it even lessened him in my estimation, as the habit of any one not looking you fairly in the face in society is apt to do. His brow is wrinkled by thought and anxiety, so much, that a scowl seems almost always to dwell upon it. In giving an audience, sitting, as was his custom, he seemed to want the easy carriage and deportment of persons in such a situation, and had an awkward custom of passing his hands backwards and forwards over his knees. His delivery was very rapid, but in

tone monotonous, and he by no means gave a stranger an opinion favourable to his urbanity. The qualities of a stern republican soldier must however be expected to differ from those of the courtier of the European school, who is seldom a hero; and it would be strange enough if the person of Bolivar should not have been in any way tinctured with the stormy, warlike; and singular character of the chequered scenes he had encountered.

Notwithstanding appearances are as I have stated, and the disappointment as to air and aspect which I experienced on seeing him for the first time, his shake of the hand was cordial and frank as a soldier's should be, and in matters of business I found him without etiquette to the foreigner, easy of access, and very prompt in decision. He was remarkably quick in his perception of any subject laid before him, anticipating the narrator in the circumstances, and coming rapidly to the in-

tended conclusion, by a sort of intuitive perception. His sense of justice, and his liberality to individuals who have suffered in the cause of independence, are well known. A Mr. W. Henderson had adventured a ship and cargo with his capital, and it was lost at Guayaquil; he was remunerated by the Libertador for his loss: this fact stands recorded in the books of a London house.

During my first visit to Bolivar, he entered upon the subject of a recent mine treaty he had entered into with Messrs. Garcia and Uriburo, commissioners from Buenos Ayres, stating that he had reserved to himself the right of accepting a superior offer, should it be made in a specified time. I asked for a copy of the terms, which he ordered his secretary to give me. I then took leave, in order to examine them at my leisure.

Having spoken in the best way I am able of the great hero of South American Independence,

I must not suffer two or three other distinguished individuals of the Southern hemisphere, whom I saw there, to pass without some notice. General Sucre, the victor at Junon and Aycucho, is another immortal name in the annals of Columbia. As a soldier, a man of talent, and a good citizen, he stands without a blemish on his reputation. General Sucre is about thirty-two years of age, of slender person, five feet eight in stature, of a dark and weather-beaten countenance; his visage is oval, eyes dark, and his face lightly marked with small-pox. The expression most prominent in his countenance to the observer, is benevolence, without any thing to mark the qualities for which he is so distinguished. Yet his face is one of those which excites great interest in the observer at the first glance, without his being able to tell why, or to designate any particular character of it as the cause. In all his transactions he uses great dispatch, is brief in speech, but

courteous ; no one is held in higher estimation among the people of Peru. As a statesman and man of business his talents are on a par with his military skill. For coolness and valour in the field he is surpassed by none who have signalized themselves in the contest for liberty ; those who have been placed near his person at arduous moments, and have observed his conduct, testify most strongly in his praise. His generous carriage on the glorious field of Ayacucho towards the royalist officers, Cantarac, Valdez, La Serna, and indeed all the survivors of that hardly contested day, added additional glory to his triumph. In private life and in public opinion he is equally respectable and un-censurable. No one whispers a syllable to his disadvantage, not even the unhappy Godos.

In another character of high note in South America I recognised an old acquaintance. We met after a separation of eight years. General Miller was then commander of the Marine

forces on board the Lautaro, formerly the E. I. C. ship Windham. I now found him the survivor of arduous services, a general of division, and Governor of Potosi. To me it was a most gratifying meeting, better imagined than described here; it was an incident in one's life well worthy of record. General Miller worked his way by merit, but he had suffered much. In person and features he was indeed metamorphosed. In spite of the glitter of a General's uniform, he appeared but the shadow in person of what he once was.* It was unfortunate that ill health obliged him to return home, and resign the government of Potosi. The experience of five months had shewn the people of that province, the effect of a just and vigorous system of

* Of the hard services which had made such havoc with his person, a summary is given in the biography of General Miller, published by Ackermann. It is much to be wished that the General would favour the world with a history of the events he witnessed in South America.

government. The town increased under him from nine to eleven thousand in population. Confidence began to be restored; the mines commenced working partially, and one million dollars were coined, being more than had been coined before from the commencement of the revolution. The Indian population, accustomed to collect the ores of precious metals in small quantities, had brought in but five thousand dollars worth, annually for five preceding years. During his administration 37,000 were collected. General Miller established a regular police, repaired the roads, and regular posts were established through his means with Buenos Ayres. A monument was also erected, inscribed to Bolivar, to commemorate the recent public events.

Don Carlos Alvear, another character distinguished in the history of recent events in the revolution of the provinces of the Rio de la Plata, was employed in a successful military ex-

pedition against Monte Video, in 1813. At the age, I believe, of twenty-six only, he was elected governor of Buenos Ayres, of which party spirit deprived him. He then proceeded to Rio de Janeiro, and did not again come into notice until the latter years of the revolution. Travelling a long and dreary road in the company of General Alvear, I had the best opportunity a stranger could have of forming a judgment of his character. The result of my observations is, that I should deem him a man of singular address, well fitted for enterprises of "pith and moment," rarely at a loss for a resource in any exigency, and well versed in a most material part of human knowledge in turbulent times—that of mankind.

General Alvear is about forty years of age, of athletic make, lofty carriage, and handsome person. His stature is low. He is remarkably well bred, and polished in manners. The united provinces of the Rio de la Plata could not have

selected a better representative for such a mission as that on which I met him, before alluded to. For myself, I cannot help expressing anew my obligations to him for his kindness to me on my desert journey between Humaguaca and Quiaca; and I should be far deeper in his debt than I am, did I not record here my sense of these obligations, which have left on my mind a lasting impression of the kindness of the man.*

I arranged for my board with the family of my consignee, of whom I had reason to think well; it saved the trouble of housekeeping. I had a long conference with Ybarquin, who considered that a frenzy had overtaken the people of Buenos Ayres, in their eagerness to monopolize the mines at any hazard; a frenzy as wild as was shewn by some parties at home in

* The recent victories of this distinguished officer over the Brazilians, it is pleasing to reflect, bear me out in the opinion I had formed of his talents in my different interviews with him, and on being honoured with his society as a fellow traveller. He is a man of no common stamp.

other concerns. Within six months, upwards of one million of dollars were to be advanced at Buenos Ayres to secure the upper Peruvian mines, and tire out the commissioners and agents of the English companies. I determined to manœuvre, and offered to re-establish the mint and bank or Rescate, by an advance, on certain conditions, upon a safe and profitable basis, and on the exact terms in outline that the monopolists had done ; but at the same time stipulating for consent of principals at home, by which no one was compromised, and the Buenos Ayres monopolists neutralized.

I soon found that my manœuvre began to succeed. The friends of the monopolists wished to set it aside, while Bolivar seemed to deem it a proof of the superior value of these mines and therefore determined in justice to all to leave the field open for a time. It was easy to foresee that this might go too far, and the Libertador's expectations become inordinate.

On the 21st I was laid up with an oppression on the chest, and my friend, Mr. Menoyo, was attacked with a bilious affection. My respiration became exceedingly difficult. General Miller visited me, and sat until twelve o'clock. I heard of a company which was coming from Arequipa, to outbid us all for mines. On the following day I was confined to my room, more dead than alive, from difficult breathing. Mr. Menoyo was much worse. The lady of Seño Ybarquin attended us with great kindness. This suppression of the breath is called in some places La Puna, and others El Soroche; the rare air here is also an enemy to insect existence, none of the phlebotomic family appearing. I went next day to witness the celebration of the festival of Rosario. This was an Indian procession, instituted by the priesthood to sponge upon the people. It consisted first of the Misa, then of a public auction, at which all sorts of gaudy coloured ribbons and useless trappings

were put up for sale, and knocked down at one hundred times their value, on account of having been blessed by the Virgin, their lady patroness, whose effigy was afterwards drawn through the streets with Santo Domingo, Santa Anna, and Santa Elizabet, as they call her. Like our Lady of Loretto, the virgin was gaily attired,

“ And in a curled white wig looked wondrous fine.”

Angels, or the figures of them, in dazzling appendages, waited upon these saintly dames; and the usual number of ecclesiastical knaves and vagabonds of all classes attended, chanting their solemn nonsense.

On the 24th I paid my respects to Bolivar, in company with Mr. Brown, and found that a rumour which I had heard was correct: namely, that 2,500,000 dollars had been offered for the mines. The Libertador stated his hope that 3,000,000 would be ultimately obtained.* I

* This extended notion of their value induced the Libertador to put them up to the highest bidder in the English

congratulated him on his prospect. General Sucre being announced, we made our bow, and were scarcely in the Plaza before a sequel to the stupid idolatry of the day before took place. The show halted beneath the windows of the palace of the Libertador, that both he and the hero of Ayacucho might do it honour. Both these great men made their appearance at a window, and the Indians and monks being made happy by this act of devotion, or the semblance of it, moved onward amid the noise of rockets, squibs, and the most discordant music. It was really painful to reflect on these poor creatures being thus led about in mummery and masque, at the price of all the little money they could scrape together, for the edification of a set of fat knaves. The chief of the proces-

market. A decree passed soon after to this effect; the order for their disposal reached London about the time of the shivering fit. It is needless to say, they died away without being knocked down by the hammer.

sion walked under a silken canopy, habited as a grand Turk, with rich tinsel robes, his train borne by two gentlemen of his wardrobe, all in fair ruby masques. For this honour on such an occasion the canopied personage pays the friars a hundred dollars, and the others who take a part pay in proportion, according to the character they are permitted to assume on so holy an occasion. This fête lasted three days, and had been from time immemorial under the special patronage of the government as a political measure, and under the church as a means of influence and profit.

The following day I transacted some business, amid the continued uproar, disorder, and indecency of the festival, with Señor Burgos, to whom I paid the necessary instalment of my purchase for the mines of Choromo. In the evening I attended a parting ball, given by the Libertador. The next day, Sunday, the 30th of October, I went to the Misa de Gracia, given with great

pomp at the Cathedral. The Libertador, the Grand Marshal of Ayacucho, General Miller, &c. were present. It was not a little curious to see the protestant English officers of the staff crossing themselves in a spirit of devotion truly military.

On Monday all the town assembled at the palace to see Bolivar start for Chuquisaca, amid the thunder of cannon, the jingling of bells, and a grand escort of troops.

CHAPTER V.

Divisions of the province of Potosi—Population of the same—Costume—Description of the city—The mountains and mines of Potosi—Origin of the great mine—Ancient produce—Value of ores—Soil of the mountains—Ascent—Great Socobon or adit—Knavery of the engineers—The crater of the volcano—Letter from England—Prepare to set out for the Pacific.

THE minor subdivisions of the new republic of Bolivar, had not been adjusted when I quitted Potosi. The subdivisions marked out by the constituent assembly at Lima, in 1821, composed Potosi, Chuquisaca, La Paz, Santa Cruz, Cochabamba and Oruro. Until the expected adjustment takes place, the divisions must therefore be thus considered. In this distribution, Potosi compre-

hends the five provinces of Porco, Chayanta, Chichas, Lopez, and Atacama, all of them mineral districts of the first notoriety in upper Peru.

An intendant or prefect is invested with the authority both civil and military of the entire department. The provinces have each a sub-governor; the whole territory is reckoned to include fifteen hundred square leagues, with a population of three hundred thousand, four fifths of whom are Aborigines. These Indian inhabitants are prone, during their "Feasts," to intoxication, from the quantity of Chicha which they drink; and if they quarrel when in this state, it is generally about the priority of their patron saints. The women resemble in make and size our Welch runts; they wear a similar hat, to which perhaps the resemblance may be mainly owing, but the Cambro-Britain ladies cannot compete with these dames in the majesty of dress. The Flanders lasses only can equal

the Potosian in the capacity of their garments. I have no doubt that the number of yards contained in the quiltings and flouncings of one Potosian petticoat, would supply a Welsh girl with gowns for half her life: while the bolsters applied by a Potosian to the hips would supply pillows complete for Jenny and Taffy's matrimonial couch. It is curious to watch the pertinacity of custom. These gothic looking beings continue to wear the ancient Spanish ladies' costume, without recollecting the difference between a life of luxurious indolent enjoyment, and the labour of absolute slavery, to which in such a climate the lightest garment would be best adapted. It is wonderful how they walk beneath a tropical sun thus cushioned. I have often compared a mandarin of China, with four or six frockings, or, if wishing to look more important, even more, with one of these bronzed Indian figures. An excellent match a mandarin and Potosian dame would

make. I think I hear the Chinaman exclaim (for in China such an accumulation on the hips would not be deemed a grace), twirling his whiskers, "Eh, yaw! Have so fashion—have too much. Eh, yaw! No have custom, no can."

The city of Potosi is the seat of government, and lies between nineteen and twenty degrees of south latitude, on a meridian of three hundred and thirteen west longitude, Spanish reckoning. Potosi is built on the declivity of a hill, affording a full prospect of the noble mountain, to which it owes its existence. The Plaza is a fine and capacious square, containing many very handsome public edifices, and stands upon an inclined projection of table land, from whence, as a centre, the main streets slope rectangularly into quebradas, or hollows, on its three sides. The fourth side is on the northern acclivity, which overlooks the town, fronting the mineral hill, whose elevation is 1,700 feet above

the Plaza. On the intermediate space, the noxious suburbs, where the amalgamating of ores took place, are erected in irregular patches; these are intersected by a river, fed from the outpourings of thirty-five artificial lakes, formed in the hills south east of the city—hills that will mark to posterity the labours achieved by a horrible system of oppression, which can never again recur, and lakes constructed at the price of the sweat and life of millions of unhappy aboriginal Indian slaves, during successive ages—millions who call from the dust for vengeance on the most merciless of task-masters, the tyrants of their soil.

The mountain of Potosi, when viewed from the city heights, with the hill in its front, called the Younger Potosi, inclosed to the eye within the circumference of the great cone without, is in shape like an extended tent, and if the mind of the observer can separate the sum of moral evil it has inflicted on the world from the bare view,

no sterile object in nature can be more truly magnificent. Leaving out of the question its conformation, the numerous metalliferous tints, with which the cone is patched and coloured, green, orange, yellow, gray, and rose colour, according to the hues of the ores which have been scattered from the mouths of the mines, are singular and beautiful in effect.

The number of the mines is reckoned by some Spaniards at five thousand. This is an exaggeration at first appearance, but it must be understood by the reader that it refers to portions of mines called "Estacas," or individual shares, consisting of so many square "varas," (yards, or feet) which each proprietor holds by virtue of what is called "denouncement," as prescribed in the old Spanish code, or "laws of the mines." Whatever may have been the quantity of these Estacas once at work, not more than a hundred were in activity when I was at Potosi, and probably not one half that

number until General Miller became the Governor, when affairs began to wear a brighter aspect, and the country to recover a little from its distresses. This was seen to be the case in all the different branches of employ. Previous to the revolution the river before alluded to turned the barbarously constructed machinery of ninety* “ingenios,” or stamping mills, for breaking the ores. By the most recent accounts only twelve are yet re-employed; many of the emigrant proprietors obtained leave to return and claim their property. These persons, however, have not a shilling to set the works going again, all their money having been swept away. It was here that British capital might have been so well, and so profitably employed, and where the failure of the hopes created by England will be bitterly felt. Unless capital to go on with can again be raised, of which in America there is

* In the year 1577 there were one hundred and thirty-two at work.

little or no chance, in another century these wonderful mines and this mighty mountain of wealth may serve

“To point a moral or adorn a tale.”

Thus, from a population of 130,000 at the commencement of the revolution, Potosi dwindled to 9000, the aggregate at General Miller's appointment in 1826. During his short administration of only five months, it increased again to 11,000 souls, as before stated.

The peak of the mountain of Potosi is calculated to attain an elevation of fourteen thousand feet above the level of the sea. Its circumference at the base on the elevated plains on which it stands, is variously computed.* Neither its elevation, circumference, nor geology, seem to have interested the old Spaniards. It was

* Helmes says the circumference of Potosi is eighteen miles: this must be a mistake, eight or nine is nearest the truth.

sufficient for them that they had found a hill of silver in the heart of a wilderness. From the peak of the mountain the town of Potosi, oblong in form, bears due north, calculating by the cathedral, the streets running north and south, and east and west at right angles.

At the socobon or adit of the mines which is high up, it measures 3,500 yards in diameter, or about six miles in circumference, which will allow nine for that of the base.

The following is said to be the origin of the wonderful mines of Potosi. "An Indian, named Duego Gualca, of the Chumbivilca nation bordering on Cuzco, while he was running after some sheep up the hill, on the edge of a declivity to keep himself from falling, caught hold of a shrub called Ycho, which gave way and discovered the silver laid bare by the root. He communicated the secret to two Spaniards, who worked the mines of Pasco, and they proceeded to Potosi, and were the first workers of this

renowned mineral. In the time of Acosta, the mines yielded 30,000 ducats a day; only a part of what were afterwards worked yielded this profit. Nine millions of dollars were annually said to have been drawn from it, at one period of its history. The two Spaniards became the proprietors of the mine first, instead of the poor Indian; which mine now, together with the noted ones called La Veta Rica, or Mas Poderoso, Las Vetas Del Estanio, and Ciegos, is under water, although of no depth. It has been the custom to cease working the mines altogether here, on coming to what they call negrilla ores, either because they find it more difficult to extract the silver, or because water generally makes its appearance on reaching them.

The class of ores contained in these mines, are two, the negrilla, a black carbonate of silver, or white sulphurated silver with a copperish mineral frequently mixed. The second species is called Paco, but the first is the richest, yield-

ing from twenty to forty marks per caxon. The Paco ores lie nearest the surface, and though poorer are more abundant. Their composition, on good authority,* is, from the result of more than three hundred specimens, an average of from six to eight marks of silver in the caxon of 50 cwt. In these ruder ores solid silver is frequently found, especially with grayish brown ore, and then each caxon yields twenty marks.

The soil of the mountain is an argillaceous, firm, yellowish slate. It is full of ferruginous quartz, in which silver ore and a little vitreous ore is found interspersed. Though this mountain has been so long worked, it is merely honey-combed at the surface. The mines have gone little more than seventy yards in depth, and horizontally about eight hundred. That the working of the most inconsiderable and poorest

* Helmes.

ores answered to the proprietors, is well accounted for, from many peculiar local advantages ; such as the vicinity of the stamping mills to the mines, being at the foot of the mountain ; a never failing supply of water to turn the “Ingenios” and supply the amalgamating grounds ; the quick dispatch and cheap conveyance of the ores by means of asses and llamas.* Miners and labourers are numerous, and reasonable in wages. From these advantages, the few proprietors at work can still make a good profit from ores averaging only nine marks to the caxon.

The current weekly profit of our Ingenio, and also the expences to stamp for amalgamation twenty caxons of ore, each caxon 50 cwt., are :—

Carriage to the works, twenty-five dollars.

Amalgamation, quicksilver, &c. twenty-five dollars.

* This beautiful sheep of the country will carry two arrobas, and the asses four arrobas of twenty-five pounds, English each. Their maintenance is literally nothing.

or, in round numbers, for each twenty caxons, about 1,000 dollars. At nine marks each, this is 180 marks, at seven dollars four rials each mark, and gives 1,350 marks; from which deducting 1,000 dollars for expences, the common ore yields 350 dollars per week, on every twenty caxons. This is laying the expences at the highest, and the product at the lowest rate, or four rials less than the mark of silver is worth to export.

The profits of one Ingenio, therefore, would be £3,640 annually, taking the dollar at par, or at four shillings. Now presuming that a company with a capital of £100,000 sterling were only able to obtain and keep going five of the ninety Ingenios formerly at work, the profit at the lowest would be £18,000 per annum. It is no doubt true, that persons employed in such distant regions, and debarred of what in England would be deemed necessary comforts, have a right to expect a handsome remuneration.

But let the expences of such persons take a third of the profit, and still £12,000 remains. This calculation, however, as will be seen, furnishes no data of what would be the profits if mills and regular stamping machinery were adopted, together with scientific amalgamation, and the European mode of extracting the ores. The quicksilver too might be purchased at the first-hand, at from fifty to sixty, instead of costing as heretofore, at Potosi, what they were in the habit of paying for it, from one hundred and twenty to one hundred and thirty dollars the quintal.

“By their amalgamation,” says Helmes, “they were scarcely able to gain two thirds of the silver contained in the Paco ore, and for every mark of pure silver gained, they destroyed one, and frequently two marks of quicksilver. Indeed, all the operations at the mines of Potosi, the stamping, the sifting, washing, quickening, and roasting, are executed in so slovenly a man-

ner, that to compare the excellent method of amalgamation by Baron Born, and practised in Europe, 'with the barbarous process used by these Indians and Spaniards, would be an insult to the understanding of my readers.'* Of the amazing loss in refining copper for alloy, he further adds, "In the coinage at Potosi (at that time about 550 or 600,000 marks of silver; and 2,000 marks of gold were annually produced), every hundred weight of refined copper, used for alloy in the gold and silver coin, cost the king thirty-five pounds sterling, through the gross ignorance of the overseers of the works, who spent a whole month in roasting and calcining it, frequently rendering it quite useless for the purpose."

It is notorious throughout South America, that the mines have been abandoned, generally speaking, the instant the ground springs be-

* Helmes' Travels to Potosi and Lima.

came an obstacle to working them further. The oldest and most practical miners state uniformly the same thing, and moreover that this happened when the mine had been at its best point of working. "The tools of the Indian miners are clumsy and miserably contrived. The hammer is enormously heavy, and the iron part being a foot and half long, is difficult to use in narrow places in the mine. The smoke of the thick tallow candles tends also to vitiate the air." The richest ores have by comparison yielded the least metal, from the lack of metallurgical knowledge to distinguish their character, and of skill to reduce the compound substances, with which the more precious ore is intermingled: for the more subtle the ore, generally the richer it is.

At Potosi there is plenty of virgin ground untouched, perhaps full three-fourths. A million sterling might be embarked, though one-third would answer every end required. I had

projected, while examining the mountain, (supposing the spirit prevailing in England when I quitted it, steadily and cautiously followed up) the reduction of the peak of the mountain downwards. The quebradas around it are deep, and seem adapted to receive the rubbish by their capacity. The crater at the top is open, ready to receive two or three thousand barrels of gunpowder, which would send the peak into the air, and possibly open the hill to the galleries of the uppermost mines. The few proprietors left would sell their rights for a mere pittance or a share in the profits of the enterprize. I have often thought what a sight it would be from the city heights to witness such an explosion!

One day, after an early breakfast, accompanied by a friend of Señor Ybarquin, we mounted our mules, and crossing the quebrada which lay between us and the mountain, ascended it until we reached the great socobon or adit, which

had been excavated, according to some, at an expense of 1,500,000 dollars, after nine years labour. This work was literally thrown away. The object was to drain off all the water from the mines in its direction, but they excavated it too high up for such a purpose. The arch at the opening is roomy and well begun, but it contracts as it proceeds, and at length is very incommodious. It must have cost a considerable waste of human life to excavate, if it was always as difficult to respire in as I felt it to be, from the arsenical and unwholesome exhalations. On one side of it is a canal, being the outlet for draining off the water, which now runs in a considerable stream, sulphurous and deeply coloured. Penetrating two or three hundred yards into this socobon was enough for me, though some of our party went to the end, which they deemed to be 1,500 yards. This adit intersected several new lodes, which, not being individual property, have never been

worked. It is probable the ore would not repay the expence of working and carrying out by the pit's mouth. A reason has been given for the wrong direction of this socobon, which forcibly depicts the frauds practised by the agents of his most Catholic Majesty to enrich themselves, and it seems, from many similar acts by such characters, to be likely enough; this was, that it was done on purpose to prevent its relieving the deluged mines, which would then become royal appanages, and the working of them have engrossed the majority of the labouring miners, and raised the prices to a rate the inferior ores would not reimburse. A sum of money to the engineers easily settled the question the desired way.

. During our excursion we entered the mouth of a mine, the ore of which was negrilla; on this a few poor Indians were busily employed. When we had reached about two-thirds up the mountain, we were obliged to scramble up the

rest and leave our mules below. There was no path, and scarcely a footing, so that what with the stones giving way, and the want of breath from the rarefaction of the air, it was an operation of difficulty, if not of danger. The difficulty of breathing made me halt every moment, until having reached the top, which from below looked a sharp peak, we found that there was space enough to bivouac a regiment of soldiers.

The remains of a crater which had fallen in about the centre of the mountain, arrested our attention, and from several specimens of calcined ore which we found, the mountain itself is clearly an extinguished volcano, once of considerable magnitude. Some of our party busied themselves in forcing large blocks of stone which overhung the precipitous edge of the crater, into the abyss below, amused at the reverberating sound thereby produced. The pastime nearly cost one of my companions his life. This gentleman, Mr. Adams, an old Chili

acquaintance, will shortly publish, I hope, an account of a most interesting journey from Mendoza by the base of the Cordilleras, all the distance to Potosi, having travelled the whole way post, with a few shirts, and a saddle for a bed. In the present instance he persisted in pushing a block that it was evident must draw him with it, though warned of his danger. Nothing but his self-possession saved him. My heart was in my mouth with fear for him. He threw his arms back as he fell, which very luckily gave the balance an ounce or two in favour of that portion of his body on *terra firma*, the other was over an abyss horrible to think upon—had he stirred he must have sunk—as it was, he was most providentially preserved.

On the 5th of November I spent the evening with General Miller, who was shortly to leave Potosi for England. I should have been most happy to journey with him. Mr. Adams also departed, and I accompanied him out of the

town, and saw him go away with the feeling of a schoolboy who is to remain the vacation, and see his comrades leave him. My spirits were far from good; they seemed like a foreboding of the intelligence I received on the day following in a letter announcing that all my labours had been fruitless. Mr. Scott arrived on the 6th from surveying the mining property of Dr. Rua, his stamping mills, &c. for which we were in treaty. I announced the tidings to him—it is unnecessary to dwell upon his surprise.

I took leave next day of General Miller, who resigned his government to General Urdininea, to whom he strongly recommended me, little suspecting that all my most sanguine hopes were wrecked, and I obtained the official signature to such documents as I wanted on departing for the Pacific; for the best route to which I consulted with Señor Ybarquin, excusing my sudden departure as well as I could. On the 13th I sustained a terrible attack of “soroche,”

but was able to transact preliminary business. I confess I never encountered severer disappointment than now, on finding my laborious journey and efforts fruitless. It seemed to me unaccountable.

I now obtained leave, through the kind Ybarquin, to accompany a merchant, as a fellow traveller, who was going to the coast. Peons and mules were procured, and the route by the desert of Caranja being shortest, we determined to travel that way. Messrs. Menoyo and Scott cheerfully consented to share the fatigue with me, and in spite of a fit of short breathing, my spirits got up with the hope of soon seeing the Pacific.

CHAPTER V.

Departure from Potosi—Grand mountain scenery—Severe cold—Scanty fare for the mules—Fine appearance of a storm in the Andes—Second storm—Singular form of the mountains—Reach an Indian village—Night march over sand—Town of Andamarca—Meet with a muleteer going to Tacna—Sepulchres of a lost race—Compelled to leave our mules behind—Indian residence—Cosapilla—Extremes of cold and heat—See the Pacific—Reach an Indian village—Repose near Tacna—Vegetable productions, &c.

BEFORE I quitted Potosi, I took leave of the governor and the friendly Ybarquin, to whom and family I felt under heavy obligations. He was a most disinterested man, for though needing it, I could scarcely make him accept a remuneration for our lodgings; indeed I literally forced

it upon him ; there was certainly more virtue in this old Biscayan, than in a thousand South American natives. Our merchant companion had started before us on the first stage, with his troop of mules. We set out early in the morning of the 17th of November to overtake him. Having got some way on our road and looking back, it was a matter of no little satisfaction to see the hill of Potosi, two leagues behind us in a right line, though it had cost us seven by a most circuitous desert road to place it so. We stopped in a stony barren valley, and took some refreshments by the side of a streamlet, breathing at least a purer air. We put up for the night at a miserable rancho, where I slept but little, the mules having broken out of the corral and gone astray. After much labour and the present of a dollar to our Indian host of the rancho, we were enabled to proceed after our merchant friend. This Indian possessed a flock of the noblest kind of llama ; the rest of

his property, estate and all, were not worth twopence.

We travelled three leagues of stony road, one third of which was through a strait or quebrada, of only twenty feet wide, with mountains towering above into the very heavens. This passage seemed a convulsive rent made by nature : we at length took up our position near a delicious mountain stream, where something, though but a little, grew for the starving mules to pick up, and where for lack of other fuel, we were obliged to use the manure of our friend's mules, which had rested on the spot the preceding night ; with this we boiled our kettle. We were six hours travelling the above three leagues or nine miles.

On the 19th of November, we had frost during the night, and this with the scantiness of fare for the mules, made us all look discontented. That day we made a tolerable progress of seven leagues, traversing the most awfully stupend

ous mountains, the dreary grandeur of which equalled any thing I had before seen. During the whole day my eyes could not repose on any other object than their barren vastness. At nightfall we got a view of a greenward basin valley, into which the poor animals trotted at a rapid rate, seeming to scent it from a distance. A stream ran through the centre of this basin, called the Cañada de los Freyles, from the lofty mountains which surround it. The night we found bitterly cold, but we did the best we could with mule dung, and some bones of perished animals for firing.

On the 20th we set out about 8 a. m. nearly half frozen. The mules suffered considerably, and the guide was apprehensive, from the appearance of the dense clouds in which the mountain tops were enveloped, that we should be caught in a "temporale" or snow storm, common in the Cordillera about this time, and certainly fatal to our mules should we encounter it.

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We therefore pushed the unfortunate animals very hard, and crossed the highest ridge of the Andes passable in this quarter, at 3 o'clock p. m. At the base of the Freyles on the western side, and a short distance from the mountain stream, (which has made the spot comparatively fertile, as might be seen by llamas, guanacos, and deer, grazing in flocks) there stands a remarkably fine natural bust of an Italian greyhound, of Herculean size, its tongue projecting beyond the lips, and seeming almost alive. We observed, in the course of the day, another similar curiosity in a rock, the semblance of a lion from the approaching point of view, and so it continued until we were abreast of it, when it looked unsightly enough, a mere shapeless mass. From the summit of the Cordillera above, a noble torrent poured with impetuous force, the water flowed dividing itself on either side into the plains below. Alpachas and llamas, laden with salt, bespoke a population of some sort not far

bff. The evening brought us to an Indian hamlet, called Caliente, situated in a low place producing salt and kelp,* the name of the plain is La Paz: here we were sheltered from the hoar frost, which reigns at this height even under the tropic. We had this day nothing but long wiry grass for the mules, which suffered more here than even higher up in the Cordillera.

We set out on the 21st rather late, from the mules having strayed for food, and proceeded but a short distance to take advantage of a position on the banks of the river Marquisa, where there was food for our mules; it cheered the heart to see them enjoy it. This site no traveller will pass, without remembering the grand scenery around. The mind is literally

* The owner of this place carried on a considerable traffic in salt and kelp with Potosi; the former at about two shillings a hundred weight. We arrived too late to examine the lakes, some distance off, from whence the bricks of salt were hewn at so great an elevation.

banqueted with the majesty and sublimity of the view. We had scarcely pitched our nearly worn out apology for a tent, when the clouds gathered in the south-east, and our guide began to fear one of those snow storms, so fatal to vitality in this lofty region. The whole amphitheatre of mountains around us was suddenly canopied by darkness. Cloud rolled over cloud, densely and black. We expected to be delayed, but the mountains took it all in snow, none escaped them. When it became clear, their heads, before dark and sombre, were dazzling with the fleecy covering; in a couple of hours the storm was over. The sight was a very impressive one; the artillery of heaven played along and around the frowning summits, in reiterated thunders to which no comparison can do justice—it made me feel how little and mean we were, to the magnitude of nature's agents then in collision. A heavy hoar frost at night succeeded, which penetrated the

skins and saddles with which the mules are covered when sent to graze, to protect their backs from the frost. Our journey was again retarded to dry them, before we could put them with safety upon the over-jaded animals. Notwithstanding their night's regale they felt the severity of the cold terribly, and hung their ears, a sign of no good character as to their state. It was nine o'clock before the sun had dried the skins, and repaired the damage.

We travelled ten leagues of desert on the 23d, ascending the whole way. We encountered a second storm, while we were bivouac-ing upon what might be called one of the ribs of the great Andes. It did us no irreparable injury, though it wetted us; for the whole of heaven's artillery opened this time far below us, and a most magnificent spectacle it was for us to look down upon. The mules were not, however, in a condition to endure such another terrible visitation. It was a fearful night

for us all. The elevation where we rested is called Chacra y Chacra, from some estate I presume in the vicinity, though we saw nothing like one.

On the 24th we found at daylight that our position was on table land, bounded on each side by mountains running parallel with each other, east and west, and terminating in massive bluffs of a figure resembling much a Greenland whale.

We this morning felt it absolutely necessary "to turn out for an extra splice of the main brace," as seamen have it. Mr. Menoyo was evidently drooping, and Mr. Scott, to my surprise, possessed still less spirit and stamina. A cup of hot tea, with a glass of gin, set us all alive again, and we descended upon a great sandy plain below, where we found the water salt, to the misery of our unlucky mules. Over this plain we dragged heavily for five long leagues, and arrived at a considerable Indian

village called Aullagas. We stopped for the night on the borders of a canal, so called from its emptying itself into a lake of the same name. This piece of water is curious as a duct or outlet of the Desaguadero. It almost reminded me of the city canal at home, the pride of land navigators. Here the mules were carried across on balsas, made to draw close to the bank, shaped like canoes, of great bundles of rushes compactly worked together, and kept firm with wooden stretchers.

On the 25th we crossed six leagues of sandy desert, producing in large tufts a species of grass, called by the natives "Pasto Bravo," on account of its prickly quality, every blade terminating in a thorn or toothpick kind of spire. The mules, having nothing else to eat, always seized the bunches sideways to avoid being punctured by them. If we calculated the distance by the time it cost us to cross this sea of sand, we must have gone ten instead of six

leagues. The heat was so oppressive that one of our mules fell and was abandoned to its fate. At three p. m. we reached the Indian village of Orenoka, a place of considerable population in the curacy of Andamarca.

It has about a hundred and forty houses, part of which, however, are unoccupied. It stands on the declivity of a sandy and barren hill. A morass in the valley below grows herbage for the cattle of the place, and a few asses and sheep. Some farms in the mountains near, supply the inhabitants with barley, "chicha," and a small quantity of oats, the only place I observed the latter grain. For fuel the root of the *pasto bravo* was all these poor people possessed, save llama manure. The houses were roofed with the *Cactus Peruvianus*. They appeared an industrious race, and when absent from their houses during the day, they secured their doors with wooden locks, of the Chinese principle, unless when they had an aged person to keep

watch in them. On each side of their doors, I observed a pile of stones, but could not find for what purpose placed there, if from a religious motive or from custom. Many of these people were busy spinning llama wool, or weaving sack-ing or cloth for jackets, trowsers, or women's bayeta garments. Their agricultural utensils were of wood, and they had no furniture. I observed here in the heart of the desert the remains of an English hoe. The most intelligent of these people had never heard of such a nation as the English. The men were of middling stature, inclining to robustness of form, and better looking than the women, who were ugly. They seemed to live in harmony, governed by a cacique, according to the Peruvian custom. I had an opportunity of seeing the cacique administer justice. He was surrounded by a council of men and women. The case was that of a woman accused of stealing young llamas, which had been supposed car-

ried off by foxes, but the inhabitants could not find traces of foxes in the neighbourhood. The first day, the accuser made his charge openly; the second day it was met by the accused, and the third, judgment was to be awarded. A verdict or opinion was taken from those present as from a council or jury, for at the conclusion they separated, the men on one side and the women on the other. They then spoke their opinions separately, with hands lifted up as in solemn asseveration, during which they all uncovered their heads. It appeared that the accused had many powerful friends. A discussion took place, and judgment was referred to the "subdelegado" of the province. The moral state of such a people, as to theft, must be good, for there can be little temptation where there are no valuables to pilfer. A barbarous chair was the only piece of furniture I saw in the place, and a few pots and pans all the necessaries. Still from this poor place, the curate who visited

it at Christmas, Candlemas, and Easter, exacted a great deal. During the festival of St. Francis and St. Rosario, observed on the 22d and 24th of October, for the benefit of souls ostensibly, but really for that of the curate's body, he raised a better harvest from this miserable place than any other in Andamarca ; one of his principal emoluments was derived from the highest bidder for carrying the flag in the procession. For a marriage among these poor people, this extortioner took ten dollars and a half ; a christening was four reals ; and a funeral was paid according to what could be extracted from the property of the deceased. Thus, are these poor slaves plundered ; but under the old Spaniards, each Indian called to work at the mines, was obliged to bring with him forty lambs for his sustenance during his pretended twelve months' (more commonly his life's) labour !

Here, after much generalship, we obtained a

tolerable feed for the mules of straw, and a little barley by way of relish with it. It appeared, however, that something more was necessary, to carry the poor animals through such another burning day, we therefore took the night for our journey, trudging to relieve them ankle deep in sand, through as beautiful and clear a star and moonlight, as ever silvered over the plains of Arabia. This forced march was not less than nine, though called but seven leagues. It cost us the entire night, and in the morning we arrived on an eminence in the environs of the town of Andamarca, as the sun rose in the distant horizon upon the Desaguadero in great refulgence, repaying us a little by the beauty of the scene, for our night's toil. It was a sacrifice to our suffering animals, which some of our party did not seem inclined to patronize. But their anxieties were not of the same wakeful character as mine, which accounted for the difference between us as to the utility of the thing.

On disburthening the mules we found their backs in a dreadful state. Holding a council immediately, we resolved upon my selecting the best and proceeding with the guide, leaving my companions, Messrs. Scott and Menoyo to follow with the first muleteer returning from Potosi, who would give the luggage a lift onwards, and relieve our own cattle.

On the morning of the next day my servant announced the grateful intelligence that a troop of mules had come in, bound for Tacna. I immediately negociated with their owner to take us on to our destination, which he finally agreed to do for seventy dollars. This, at any rate, decided our safe arrival at our journey's end, if not that of our mules. We started immediately, and travelled until nine o'clock P. M. towards the fire the muleteers had lighted at a distance, for while we were bargaining in the morning with the owner, they had passed on so far that our poor brutes could not come up with

them, and suffered the affliction of another terrible day's labour which well nigh completed their ruin. The road throughout was of the same sandy description as before. The sun's rays burned the skin off the face: my nose was literally flayed.

Our time of starting was now fixed at two in the morning, to stop at three P. M. My companions were heavy with sleep. This day the scene varied only by the discovery of numerous Indian stone sepulchres, oblong in form, and ten or fifteen feet high. They appeared in every direction as far as the eye could reach, displaying their white heads, and looked like the tops of houses in an inhabited town, rather than monuments of an exterminated race. Here, in a wide desert, were the cenotaphs of Inkas and Caciques in myriads, belonging to a forgotten people. Man had destroyed man, till these were the only memento of his existence. Nature, like him, too, must have decayed, for

the sandy plain over which we travelled must have been once fertile, and have supported a large population, of which these monuments were the wreck. The scene was a melancholy one, with reference to the past or present time.

We travelled eight leagues, and stopped on a piece of greensward called Laguniñas, from its vicinity to a lake too salt to drink. The land on the border of our encampment, however, afforded us water of excellent quality. Our mules, though burthenless, seemed greatly distressed, and came in one hour later than the muleteer's troop.

The "arrieros" complaining of our delay in setting out, I aroused my party early, got our kettle boiling first, and our mules off half an hour in advance; but in such a jaded condition we feared some of them could not last out the day's journey, which terminated on a pampa after the endurance of an excessive degree of heat. We did eight leagues of distance, which seemed more

like twelve travelled in fire. An Indian village was only half a mile off, called Cosapa, where we could procure nothing but tolerable fresh bread.

The following day, on mustering our forces, we found we were one peon and two mules short of complement. A number of the other animals were so exhausted that it was necessary to leave them behind with Mr. Scott, in hopes of their recovering by a little rest. As an additional inducement to him to remain, we found that the hills under which we slept abounded in minerals, one of them, in shape and height, was the counterpart of that of Potosi. In consequence of this arrangement we did not make a full day's journey. We stopped at a place called Guaylas, having good water, and an abundance of a species of pasture, called "cicnegas," growing luxuriantly in the salt-marshes, with which these vallies abound, whenever they are in the neighbourhood of fresh water. Here, as

at Lagunillas, is the phenomenon of a salt marsh yielding nutritious food for animals from the spontaneous eruptions of fresh springs beneath them. This was a fine land-locked situation, of which an industrious Indian, taking advantage, has reared a hut, and bred a fine flock of llamas and sheep. He brought us a lamb, and his little bronzed daughter a jug of milk, the price of which was two reals only. She was pretty, modest, and interesting.

Near the spot where we left Mr. Scott, upon a hill, stood the uninhabited remains of an Indian city, with a citadel and rampart of stone all round, the work of some remote age, and of a people who have perished. On one side it was protected by a deep ravine. The wall had openings or embrasures, and the stones were dovetailed together in a very singular manner. Bows and spears might be employed from the openings with advantage in annoying an enemy ; and some of the apertures

were large enough for cannon. The citadel was in the centre of the place, and seemed reserved as a last retreat from hostile attack. The whole clearly proving that in some past time the aborigines of the country were a more powerful people than any of those supposed to be descended from them, and who now survive, would lead us to expect.

The next day we started in a frost that made us grin again. We met an officer with despatches for General Miller, having left Tacna three days before, expecting to reach Potosi in nine more, but he had most beautiful animals to carry him. We shuffled along eight leagues from hill to valley. Every vale a basin in form, and some in their centres having deep, ravening, dark gulphs, where the roar of unseen torrents struck the ear with fearfulness. These waters seemed forcing and raging invisibly to find some subterraneous outlet; but others were visible in all the thunder of their turbulence,

boiling, eddying, gushing through narrow gorges, or hurled over precipices, which you viewed from others, still higher, parched with thirst, your mule and yourself losing the grandeur of the sight, in the Tantalus-like pain of seeing and hearing the cool water, which your burning lips could not touch. Now you traversed an overhanging rock, beneath which the water glided unbroken, like an arrow along; and now far above you the impetuous torrent was leaping from crag to crag; now a silver ribbon, and then a broken mass of foam, but all beyond your means of accessibility. We also encountered a thunderstorm, the reverberations of which were so awful, so sublimely grand in sound, echoed from mountain to mountain, along valley and ravine, that no pen could do it justice—the wonders of the Andes soar beyond the power of language to describe them. They must be seen to be known in the terrors of their majesty.

On the 3d of December we passed the hut of

an Indian goatherd, and got the usual "no hay" to every inquiry. We halted at a post-house, called Cosapilla, situated on the side of a lofty mountain. Being half starved, we forced an Indian to sell us a couple of his lean sheep, which he did with the usual shew of regret, namely, by crying when their throats were cut: though some tell me this apparent exhibition of feeling among these primeval people is mere custom. We travelled eight long leagues, much more probably twelve; such is the cheating mode of getting on travellers here, it renders the distances really more tedious. What with the burning sun, and being best part of the day destitute of water, this was the most fatiguing day's journey we had performed. Some of our party did not come up for a couple of hours after the arrival of the capitaz and myself. The country and scenery were similar to those of the day before. Our guide pointed, now and then, to the distant hills. The Caranjas

mineral hills were in sight after four days' travelling, which shows how small the actual distance must have been that we had made upon a rhumb.

On the 4th, having been seized during the night with a smart rheumatic attack, I rubbed my joints well with aguardiente. By this, though I was compelled to get the assistance of a peon to mount the saddle, I soon found my limbs supple. We started at three o'clock A. M. praying for the sun to dissipate the nipping frost which we had to endure for three long hours: and in three hours after sunrise, an ice-house would have been a luxury to shelter in. I now felt it more than ever a misfortune to have no barometer by which to find our elevation. We travelled amid mountains, apparently as lofty as any pointed out by the guide as the highest. The snow-capped pinnacles seemed everlasting, with the sun at noon perpendicularly over us and them. Yet our course was in declivities, not

apparently counteracted by ascents. We stopped, after a fatiguing day, at La Piedra Grande, where we found a little *pasto bravo* for the mules, but no water.

On the next day we started at the usual hour, and endeavoured to keep the frost from our noses with a cigar. We were the greater part of the day ascending that range called the Lower Cordillera, which is seen at such an immense distance from the Pacific. The whole pass was cruelly rough for the mules; the road, if road it could be called, being covered with pieces of loose rock. At 8 P. M., after five hours' travelling, we gained the summit of a continuous range of mountain land, hoping each eminence we reached was the last and highest, when all at once from this grand elevation, a vast expanse of the Pacific burst upon the sight, to our inexpressible joy. It was distant from us thirty leagues, according to our guide, or ninety English miles. Being some-

what in advance of our party, I got off my mule to enjoy this glorious, this stupendous scene of grandeur. Never was a mightier mountain view presented any where else to the human eye. It was a picture to be gazed upon in silence, for language would have ill broken in upon the deep admiration in which I felt absorbed. We were thousands of feet above the intervening land, and the sweep of ocean as well. I gazed upon those blue rolling waters that compass so much of the globe, from a height, I should think, at least of 12,000 feet, forming a lower elevation of the Andes: and never shall I forget the impression made by the picture on my senses. The table land far below us was probably as high above the sea as the lofty Pyrenean chain of mountains in Europe, and upon that we looked as if it were a valley far below.

When the rest of our party came up we halted and breakfasted at the side of a moun^d

tain stream, with a ferruginous margin, after which we proceeded on a forced march, upon a descent, and stopped at night at an Indian village, in a most romantic situation, tenfold more charming to our sight from being the first approach to a spot where Nature wore her green livery, of the sight of which we had been so long deprived. It inspired us with the greatest joy, and what must have been the feeling of our remaining famished mules, as they steeped their jaded heads to the throat in clover. Poor beasts, so great was their apprehension of not having enough, that there was a general effort made by kicking and neighing, to drive each other from the Elysium into which they had entered. Obtaining milk, eggs, and poultry, of which we stood in some need, we also luxuriated in the situation. At 8 P. M., the arriero being desirous of reaching Tacna as soon as possible, I volunteered to travel with him through the night, leaving Mr. Menoyo to follow with our mules,

which being at last in an Elysium of good "alfalfa," or grass, deserved to enjoy themselves a little.

My journey through the night was still by a succession of mountain and vale, along a deep strait, in which the moon only occasionally befriended us, when in some winding of the pass, she suddenly broke upon our gloomy road. I much regret not having had daylight in travelling through this scenery. At one deep strait the Pacific arose full in front, across me, like a dark wall, though twenty leagues distant. It seemed to be piled up into the clouds, a vast barrier to my progress. Upon it, or rather apparently hung against it, and close to me, was a round, black object, which had the appearance of a hat in shape, and so near, I could almost touch it, as I fancied. This, my guide told me, was an island, in form exactly like a friar's hat, and called therefrom Sombrero del Freyle. I could

scarcely imagine I was not close upon the ocean ; so marvellous was the illusion from the hollow where I stood ; it was no less grand than extraordinary.

About three in the morning we reached the house of a friend of the arrieros, near Tacna, where two or three hours of sound sleep closed twenty-four of great bodily exertion, but by no means destitute of mental gratification, from the novelty and grandeur of the scenery I had passed over.

The vegetable productions of the desert, though not numerous are very singular, and their general character as to form is globular. Thus mounds of moss, resembling the hillocks of mossy grass seen on flat grounds in this country are observed in many parts, but almost mathematically circular. These globular mounds are of all sizes, from a foot to fifteen feet in diameter. The surface of the moss consists of minute stellated green leaves or flowers, at the

top of dense stems or fibres, of a resinous, aromatic fragrance of smell. The whole mass is soft and yielding, and to the traveller's cheek and limbs very grateful, from which quality it is used as a couch of repose by the weary mule traveller, and none in such circumstances can be more luxuriant. The verdant appearance of these hillocks relieves the eye amid the desert, when nothing else but rocks and sand hills, excepting the torch thistle, its very reverse in appearance, is to be observed, or a few bushes of the carob. The spines of the latter are three or four inches in length, and are converted by the natives into nails and knitting needles.

Near the desert streams and rivulets or pantanos, small tufts of rushes grow, which are extremely soft to repose upon. They also grow in circular mounds, a form which every thing takes in these lofty regions.

Upon the sides of the mountains we observed a singular species of bramble, growing as it were

in balls. The spines were horn shaped, intersecting each other, having their points inverted, so that the hand might press their surface without being wounded. These globes of thorns, at least the smaller portion of them, might be kicked off the ground entire, so little was the hold they had of the earth at their roots.

The only appearance of a flowering shrub I saw in the desert, was a resinous heathy production, called by the *arrieros tola*. This, even in its green state, made us a noble fire at night, when we were fortunate enough to halt where it grew. It emits a fragrant, grateful odour when rubbed between the hands, somewhat similar to the willow, called *molle*, in its strong aromatic smell. It is used by the Indians as a dye. It bears a succession of flowers of different hues, and very beautiful. It abounded in the depopulated district where I have already mentioned the having observed numerous ancient cemeteries.

I must here notice, among other desultory observations on the desert route, some curious phenomena. It was after crossing one of the travesias or desert plains, on reaching an eminence, that I saw them. We calculated that there was a considerable population on the ground we were approaching, from numerous columns which arose before us, apparently of smoke. But they mounted in the air perpendicularly, and for this we could not account, as it blew a gale at the time. Still thinking it strange that smoke should thus ascend, we journeyed onward down into the plains themselves where they arose. We now discovered that they were whirlwinds of sand. On getting into their vortex, which happened several times, we found it no very agreeable thing, for, independently of the indraught threatening every moment to take the mule off its legs, they were attended with a dizzy, confusing, whizzing noise, astounding to the rider, while the mule

knew not whether to stand still or advance. To shut our eyes, and spur the animal forward was our only mode of escaping from their power. These winds must act on a considerable surface at once, as they swept onward with us, at times, maintaining their spiral, circular form. At a distance the columns never appeared to move laterally, but only to mount up into the air as smoke from a rancho fire. It is probable they are carried far before the wind, and that by this means, many districts, formerly fertile, have been rendered barren wastes, showers of sand from the columns being borne irresistibly along. Something of this nature may account for the country around the ancient Indian burying ground becoming a desert, for cities and fertility must have existed there.

I shall conclude this chapter with a few observations made in the best way I am able, upon certain geological appearances which struck me among the Andes. The occupation of a sea:

man is one, professionally speaking, of a very limited nature; his sight for months confined to sea and sky, the bright orbs of the latter, by which he shapes his course, are his principal study, his only object the port of his destination in the shortest practicable space of time. If in the present instance therefore an old sailor shews his ignorance of geology, in comparison with other travellers, some allowance must be made for him.

In the course of my route it would appear strange if the numerous singular appearances of the earth in so long a journey, and over such a variety of surface, should not have struck me. Though unable to arrange them in their scientific places, or to speak of them in proper language, many changes which I saw had taken place in the matter of the earth, did not fail to strike me with wonder. I have already mentioned the valley, mountain, and desert scenery, and I venture to affirm, that no such field elsewhere

exists for the study of the structure and formation of the globe as South America; the world there is certainly of a later formation than elsewhere, or the changes upon it have been more recent. Let the Neptunist or Plutonian examine the Andes and their vicinity, where they may survey and theorize without end, they will be of this opinion with me. The agency of both the elements is there strongly marked in every form. Subterranean fires or volcanos, earthquakes, and *débris*, caused by them are plentiful. On the other hand, alluvial depositions, rocks scattered by torrents, or piled by them in ridges, or sown by deluges; mountains riven asunder, or corroded by irresistible floods, are every where to be found. I saw instances of mountains, which had been torn asunder as if by magic, one moiety having been shook or sunk down below the other, yet so faithfully preserving its form, and that of the surface whence some dread convulsion must have separated it,

that the spectator felt an irresistible desire, as it were, to push up and re-unite them. The conviction of their having been originally one mass, would sanction the most scrupulous individual in swearing it to have been so. In some places the mountain tops are rounded at elevations of thousands of feet above the sea; many leagues inland from the Pacific, the inhabitants obtain their lime from rocks of decomposing oyster shells, nay beds of the pearl oyster are found nearly in their original conformation. On the Atlantic side, in a cavity of the Corcovado hill, which towers above the capital of Don Pedro, I have procured specimens of perfect coral. In the lofty ranges of the Cordillera, besides saline chrysalizations, organic remains of the ocean are seen in plenty, a proof that there was no encroachment of the sea on one side the continent more than the other, but a uniform subsidence of ocean from the land, or elevation of the land from the ocean. If the ocean once

covered the land to the depth of two or three miles, where has such a quantity of the fluid now retired? If the earth arose from the ocean, what was the agency that effected so stupendous a resurrection?

I have often thought that short as the life of man is, one need not be surprised that changes on the earth's surface pass unobserved, and that the continued working of the system of nature, may not be seen from the slowness of its operations. Yet to those who have, as I have done, repeatedly doubled the once dreaded Capes Horn and Good Hope, and found them disarmed of that elementary fury and danger once observed near them, change is visible. I have at times conjectured whether from some shifting of the earth's axis, the seasons are not getting milder in both hemispheres, and whether the present vicissitudes are not correcting, by a slow approach to a unifor-

mity of seasons over the whole of the earth's surface.

But I must not weary the reader by conjectures, in addition to the numerous theories already given to the world. In the mountains of Tarija, at 12,000 feet, perhaps, above the sea level, it is said that the bones of the mammoth are found in greater abundance than any where else on the earth. In the province of Salta they affirm also that near Tarija the skulls of a giant race of men have been discovered, and they fancifully attempt to account for this by the supposition of their having grown after inhumation. Thus "giants having been on earth," and the history of the Titans, does not seem to be a fable. It is true I did not see these large human remains, but this account was furnished me by most respectable authority in Salta.

Finally, of the changes which have taken place, our own recorded deluge bears witness.

I have sometimes imagined that over the northern hemisphere the displaced waters rolled, as the southern land emerged. Thus, to extend further the fanciful speculation, may be accounted for the inundation of the old world by the bulk of the southern displaced waters, and the outpourings off the land as it arose, the water rushing along, and scooping the enormous basins I have made mention of before (some of which were three or four miles in diameter, for a long succession of them), to find its final junction with the sea. That land rises or ocean recedes, even now, in many other parts of the globe, there is no doubt.* Near Dampier's and Pitt's straits, and among the groups of islands adjacent to New Guinea,† the seaman is surprised on revisiting them, after the lapse of years, by the apparent

* The coast of South America, for eight hundred miles together, is said to have risen lately three feet above the old sea level, in consequence of the earthquake at Valparaiso.

† See Appendix.

increase of some, and appearance of others altogether new. Many indeed of these were the work of the coral insect, but in some places volcanic, of which kind Ascension elsewhere is a specimen ; but I must conclude, lest I lose myself in a maze of wild conjecture.

CHAPTER VII.

Arrival at Tacna—Rejoicing on the anniversary of the battle of Ayacucho—Entertainment and ball—Arrival of Mr. Scott at Tacna—Population of the town—Gardens and plantations—Mode of granting land—Indians—A bull-fight—Engage a passage for Valparaiso—Voyage thither—Journey to Santiago—Set sail in the Auriga—Arrival at Coquimbo.

ON the 6th of December, at sun-rise, after a couple of hours sleep, I started with the muleteer, and arrived at Tacna at seven A.M.

I immediately waited upon Mr. C. Stevenson, to learn the result of a plan I had formed, for rendering a part, if not all of the force (which my son wrote me from Arequipa, was on its way to Chili), available for the engage-

ments I had contracted; this information reached me at Jujuy, and enabled me to dispatch a letter to Mr. Barnard, of Santiago de Chili, in time to insure this desirable object, and to pave the way by a correspondence with the above gentlemen, for the contemplated forthcoming at Tacna, of the vessel, and such of the mining establishment as could be spared from Chili.

Mr. Stevenson informed me that advices from Valparaiso of a recent date, just received, brought no intelligence from Mr. Barnard, and that the company's ship *Auriga*, with her mining establishment, had not arrived when the vessel sailed. I conceived this news favourable, hoping yet to be within convenient time upon Chilian ground. I must confess my chagrin, at the same time, on learning that an old friend, Captain Bowers, who would have given me a passage up at once, had sailed for the southward only the previous day. I had the additional

mortification also to learn, that there was no likelihood of any opportunity of a vessel for Valparaiso for some time, unless by the putting in of some chance craft, seeking for freight from the northward.

There being no tavern at Tacna, Mr. Stevenson politely offered me accommodation at his house, which I accepted. "

On the morning after my arrival, Mr. Menoyo came in safe with the luggage and remaining mules, scarcely able to put one foot before the other. The usual visits of ceremony to Mr. Butler, the governor, and others, occupied the principal part of the day.

I found there such an influx of my countrymen, that Tacna appeared more like a British colony than a Spanish one. It is amazing how soon every new mart opened to our trade is overwhelmed; what a matter of regret it is, to find our commercial energies destroyed by the national competition, the merchants and manu-

facturers eating each other up, the latter especially going to ruin by engrossing the three branches of ship-owner, merchant, and manufacturer, instead of confining themselves to their own particular business. Nothing but periodical distress will be the result of such a system.

The intervening days to the 9th, passed in the usual routine of obtaining intelligence, and listening to mining tenders—the merchants here, as in other places, were busied in increasing the sum of these difficulties, by monopolies of mines, which must presently be upon their hands to a ruinous extent. On the day of the anniversary of Ayacucho, I escorted the lady of my friend, Captain Macfarlane, a resident of the place, to the fireworks; the town was all alive with celebrating an event which decided the fate of South America, as an independent country. The exhibition took place in the Plaza, and was a gratifying display of mirth and revelry. The

officers of a regiment stationed there, who bore a conspicuous share in the battle, made a prominent appearance on the occasion. A dinner was given to the officers by the colonel, and the English gave a ball in the evening to the ladies. Such a motley group of half casts, I never before witnessed, not even in the Indio-mineralogico assemblages of Potosi. The day, on my part, was spent idly enough, in company not over attractive, amid dancing not over graceful; but the supper was good, and the quantity consumed seemed to prove good appetites, at least, among the guests. It appeared as if the people had never before seen a banquet. No school-boys ever crammed more inordinately, or with less ceremony, pocketing what they could not eat.

The next day, Sunday, I attended the Misa. There were not as usual the massive silver candlesticks and plate. The "patria," or in other words, the military caterers having found

a very different use for it ; I returned to my lodging, and to meditation on the past and future. Ennui began to pray upon me, and I would have set off for Chili in a whale-boat, could I have obtained one. I dined with my kind friends, the Macfarlanes, after which I accompanied them to the general evening promenade, a quarter of a mile out of the town, and which, as a shelter from the sun, is a most delicious retreat. The vine, the palm, the pomegranate, the bamboo, and the wide extending fig, spread their luxuriant branches so close as to make a complete screen. The site is a bed of sand, well irrigated by the Indians, who have plotted it out, with a parsimonious attention to the store of water, from the grand "azequia," fully showing the indefatigable industry of this inoffensive race of men. In the course of my communication with Don M. Teller, to whom I had letters of introduction, I heard of many excellent mines not worked, and among them

the tin mines of Oruro, and found that they might perhaps be more worth attention, than those of gold or silver. A few discreet persons still keep this lucrative trade in their own hands. There is a great demand for tin at this place, but the quantity obtained is materially lessened since the war.

On the 16th, Mr. Scott arrived, whom the reader will recollect I had left far in the rear, with the weaker mules; six of the mules he was charged with remained behind; two of them had perished from the severity of the cold. He brought several specimens of ore from the Caranja mountains.

The town of Tacna is situated in the province of Arica, seven leagues from the sea and ten from the Port; whence it bears N. N. E. The population is about seven thousand, one third of whom are Indians.

The country about Tacna is a dead sand or

silt, glowing with culture wherever the water is conducted, but more especially in those plantations and "chacras" where a little manure has been used. This is brought in large quantities from the windward Islands, and consists of bird's dung, and in the traffic, upwards of fifty vessels of various burthen are constantly employed, and a most lucrative trade carried on. Every fanega, or two and a half English bushels, is sold at the rate of two dollars and a half, or four shillings the bushel.

The chief productions are maize, alfalfa, potatoes, and cotton, but the latter only in small quantities near the town. The principal fruits, figs, melons, peaches, pears of the Jargonelle kind, grapes, plantains, oranges, and pomegranates; vegetables also are abundant and cheap.

The admirable industry and patient habits of the Indians, are no where better displayed than in their little farms in this neighbourhood,

wherein the land and tenement of the holder are plotted out. Having gone to the expence of irrigation, he holds at a quit rent of eight dollars, once payable to the king, but now from new arrangements made redeemable, by which this industrious class will become freeholders and free-men. The land thus brought into culture does not much exceed a league either way, and is watered entirely by ducts, or azequias, brought from the river, which skirts the town at a convenient distance. It is thence subdivided into smaller channels, suited to the wants of all, with the most rigid regard to economy, not a drop is wasted. Stated periods are fixed to turn it upon each partition of land, and the disputes about every pint of it are perhaps the only ones these inoffensive people have. The head cacique, who collects the annual tribute, has for his guarantee of risk in payment, the whole stream on Thursdays, and the second cacique the same that day night. The first is said to reap an income

of six or seven thousand dollars from the quantity he dispenses, over and above the wants of his own lands. As much care is used in allotting each proprietor his share of water, as Whitbread or Barclay would use in tuning out their porter.

The land is said to have been originally granted by the "topo," a message of seventy yards by twenty-five, each Indian having one topo and a half near the town, and the same quantity on the more distant pampa. They value it in a general way as follows: a topo of land, with alfalfa or grass, fifty dollars; with grass and a plantation of coffee, seventy; and a topo of fruit trees still more. If olive trees have been reared upon the land, it is customary to value each tree at ten dollars when full grown. Of all landed property in this province, that with the vine and sugar cane brings the most money. The vineyard is estimated by the plant, from three reals to three dollars each, according to size.

and bearing; in the more fertile spots, the top being calculated to plant from twelve to thirteen hundred vines, is worth from two to five hundred dollars the bare land; at two to three reals a yard. Hence it would well repay capital to conduct the mountain stream, called Ancómarca, into the extensive but now uncultivated valley of Tacna, which is perhaps fourteen leagues square. A valuation was once made at two hundred thousand dollars, and a canal begun, but it was abandoned for want of money to complete it. The hills in the vicinity abound in sulphur, and mining thus offers a twofold advantage to speculators. The Indians are more athletic and somewhat less abject, than those in Upper Peru, and there is an appearance of cleanliness and decency in their dwellings, which even approaches comfort, beyond what is observable in other districts. This is accounted for by their vicinity to a sea-port of considerable traffic, into which a superfluity of British goods

is constantly pouring. In Higher Peru the long mule carriage enhances the price beyond the Indian's means, and no similar intercourse exists. Yet even under these disadvantages, there is not a rancho, even in the desert route I passed, which has not some garment or utensil of English fabric. The importance of Peru to our commerce may be judged from this.

The richest parts of the country in the neighbourhood of Arica are the valleys of Sama and Locumbo.

The former, distant eight leagues, produces large crops of cotton of the first quality, and is generally worth on the spot, at gathering time, from five to six reals the arroba of twenty-five pounds, containing the stone, which consists of nearly one half the weight. The Liverpool speculators, at the time I was there, had raised the market to twelve reals in Tacna, equal to ten at Sama.

Locumbo, distant from Tacna eighteen

leagues, is an extensive and fruitful valley celebrated for its luxuriant vineyards, from which large quantities of spirits are distilled for the Alto-Peruvian market, affording a brisk trade by mule and llama conveyance. Immense troops of these beautiful animals are constantly employed in traffic of one kind or another from that province to the interior.

The wine for home consumption resembles in quality and flavour the Malaga, and if any pains were taken to clarify and refine it, might become an article of considerable export.

The above valley also abounds with the sugar-cane of the best growth and quality, but from which the Aricanians are content to derive only molasses, and a species of sweetmeat, which they call "chancaca."

On the 19th I witnessed a species of bull-fight, and saw the mode adopted for recruiting Bolivar's army. The regiment stationed in the town kept the ground on this occasion. Near the last

round of the fight, almost the whole population being collected looking on within the area, the soldiers by a given signal secured the avenues at the angles, and pounced upon all the idle and refuse part of the mob, who were secured. One of these fled for succour into the box where I stood, followed by an officer, who seemed to have a grudge against him. A relation, interfering, said to be the man's wife, the officer pushed her roughly away, which usage she repaid by dealing him a fierce blow on the jaws with her fist, which brought blood in abundance, to the no small amusement and applause of the spectators,

The 20th, 21st, and 22d were principally occupied in mining affairs of no interest to the reader. On the 23d, upon the arrival of an American vessel in ballast, I called on the Consul^{oo} to know her destination. The captain being expected the next day, I saw him, and found he came for freight, and meant to proceed to the

northward, if none offered at Arica. This was unfortunate.

The next two or three days I employed in writing letters, and hearing mining proposals. The arrival of the American ship induced me again to inquire respecting a passage to Chili, hoping to prevail on the captain to turn to windward as far as Valparaiso. In this object the American Consul was so obliging as to interest himself with the supercargo, who fortunately arrived the following day from Arica. After much debate, the supercargo agreed for five hundred dollars to sail with me, behaving very handsomely on the occasion, offering to return part of the money on obtaining other passengers, and with the speedy prospect of setting sail, the year 1825 closed upon me. The opening of a new year, with a little idle time, prompted a retrospective view of the past events of my life, the vicissitudes I had undergone, and the scenes through which I had passed. Thoughts of a

melancholy cast thronged upon me. Little did I think a year ago of spending my new year's day in South America, and in the miserable town of Tacna, having traversed such a distance over the American continent. After all, idleness is the period for reflection, and an interval of it now and then is useful for recalling us back to ourselves, and causing us to examine our own hearts. I spent the day with my friends Captain and Mrs. Macfarlane, toasting all friends at home, from the shores of the Pacific, and under the western shadow of the Andes.

The following day I engaged mules to take us bag and baggage to the port at Arica, and set out at four A. M. in the morning of the 3d. And here I take occasion to record my obligations to the families of Steyenson and Macfarlane, for their hospitality to me during my stay at Tacna.

The journey to the port of Arica is usually a gallop of four or five hours, over a range of

sand hills, without a green blade of any sort. My sorry, hired palfrey, made a drawling eight hours of it; the intense heat of the sun from these sand hills is not to be exceeded, its effects upon me were more than usually severe; I thought that, for so short a distance, I might dispense with my nearly worn out umbrella hat, rather an awkward blunder, as I found to my cost.

A long friable proboscis is a most inconvenient appendage to the head of the desert traveller in a tropical climate. They, indeed, who venture to sport an uncased nose with an inch of projection beyond the rim of the hat, will bear, as I shall, the marks of their folly to the grave, in repeated embossings by the solar rays.

† On my arrival at Arica nothing could be more apropos than an invitation I received from the representative of a Liverpool house, a Mr. Atherton, to an anniversary dinner. The nectar with which this gentleman treated us, yet lingers on my palate—whether exported by Mr. Charles

Wright or not signifies little—but I subscribe most cordially to his doctrine touching the revivifying powers of champaign.

The 4th and 5th were occupied in writing letters to the various persons with whom I held relations on the company's behalf, and in giving instructions to Mr. Scott to examine the tin mines of Oruro, as also to determine the feasibility of conducting the water from the distant hills of Huantajaya to the mines, and to avail himself of certain propositions to work some mines recently tendered, subject to provisions which should not seriously implicate the company.

On the 6th, having closed my despatches, I took leave, and stepped into the boat, with a repugnance against a return to terra firma which I never before experienced.

, There is always employment enough for an old sailor from the moment he puts his foot on shipboard; in the instance of my present embarkation, I know not how to convey the satis-

faction I experienced, on hailing once more my own element, unless by comparing it with that which a good Catholic dreams of enjoying on being released from the pains of purgatory.

Very different was the sensation my travelling companions laboured under. My Alto-Peruvian servant had not even seen a ship in his life-time, his open-mouth bumpkin surprise was, as may be imagined, singularly ludicrous—the vulgar word “conglomération” is aptly significant of it.

The Clinton weighed and stood out of the bay, with a strong south-easter hauled close upon a wind, and opposed to an ugly head sea, creating a sort of confused motion between pitching and lurching, extremely bothering to the brains of a novice. Mr Menoyo, who had performed a voyage before, soon made a dive into the steerage, there to perform the part of a “brave man struggling against difficulties,” from which he did not “debouche” for some days; the poor Gaucho boy, not so intellectual,

stood on deck, unknowing what the deuce was the matter with him, and gazing with amazement at the sailors as they brushed past or jostled him in trimming the sails. Seeing his distress, I beckoned him to come to me: the vessel at this moment sallied over, and he went to leeward with an impetus and smash too well understood in the first essay of every landsman to need a comment from me upon it. A sailor picked him up with as much unconcern as if he had been merely a calf. He crawled over for protection to his master to windward, looking piteously. At this moment the skipper, with stentorian lungs, bawled out to the boy at the helm, "Luff, Tom, when it blows." "Matteo," said I, "what do you think of this?" "No se, Señor, misericordia muchos *tomblos*," was his reply; (the provincial pronunciation of "tremblores" or earthquakes); of these he had only heard as happening in other parts of the country, and he had in fact mis-

taken the captain's words of "luff, Tom, when it blows," doubtless conjecturing that his earnest manner and hoarse voice, proceeded from fear of, some pending calamity.

I was about explaining the difference between a sea and an earthquake, when I found the instant convenience of guiding the poor fellow's head in another direction, to avert the contents of his victualling office from my face. I desired him to open his mouth as wide as possible and look straight at the water; half choking, he muttered, "Carambo, Señor." For three days poor Matteo seemed only anxious about a confessor, for he thought his time was come.

It is generally known that the wind blows along this coast from south-east nearly the whole year, obliging ships to make a most inconvenient angle in their passage to a southern port. They get led off to the westward sometimes as

far as 90° ere they can fetch Valparaiso or Conception on the other tack. The Clinton being a fine weatherly craft, made in the onset a good southern board and was well to windward of Arica the next noon; whereas it frequently happens that ships are from ten to twelve days to the northward of their place of departure.

On the 8th we made a W. by South course good of 129 miles, with fine weather and plenty of dolphins near us, to amuse the watch below.

The 9th the bulletin of the sick showed a little improvement. The captain, who was also the Mr. Bolus of the ship, pronounced the patients out of danger; pulse moderate; stomachs empty; treatment, a long slice of fat Yankee pork, tied to a string and dipped in treacle; patients to swallow it repeatedly by turns, returning the gorged piece, by the check-string, to

facilitate reaching. The supercargo was an entertaining and attractive companion.

The skipper was a regular Tom Bowling of the Trunnion class, possessing all that dry and quaint species of "lingo" so peculiar to the old school of tars.

I found myself as much at home with these good fellows as though we had been ploughing the ocean together for years upon a stretch. Our course was, south 64, west 126 miles, light wind and fair weather, yet creeping pleasantly to the southward.

On the 10th there was a little improvement among our patients who had rejected the prescription and food, and were still pumping with nearly dry suckers in consequence.

Found ourselves in latitude $21^{\circ} 20'$ south, longitude $76^{\circ} 47'$ west; the wind dead at south-east, and a four-knot breeze.

I now further beguiled the time in reading Barry O'Meara's work on his residence with

Napoleon, entitled, "A Voice from St. Helena." Having known Sir Hudson Lowe and also Mr. O'Meara, and having seen the putter-up and puller-down of kings in his wretched and miserable abode, so unworthy his genius and what he had been, I found it more than commonly interesting.

On the 11th I reperused the letters I had received at Arica, from my family, and replied to them; an enjoyment at that moment, of no mean account in my estimation. The social feelings, after such a journey as mine had been, with no intelligence for so long from those most dear to me, were necessarily stronger than usual, and now I was upon the Pacific, that alone will excuse my mention of this circumstance to the reader, as I fear he must excuse many things I have recorded more interesting to me than to him. This day our course was south 33, west 93 miles.

The 12th passed with fine weather and a

head sea. Our course south 45, west 65 miles. The next day the light wind increased to a seven-knot breeze, and then slackened. Our course, south, 27 west, 122 miles.

Bulletin.—Our sick convalescent. Poor Matteo on deck, with a red handkerchief about his head, looking cadaverous and woe-begone—my assistant, also, sitting on a hencoop, with a “green and yellow melancholy” in his countenance. Four seamen, the cook, and a negro boy, employed cleansing and fumigating the sick bay.

On the 14th the wind trended a little more easterly, with fine weather. Our course, south 30, west 126 miles. The more I see of an American ship’s company the more I am pleased. The management and general economy are admirable, and I am induced to think that Jonathan, in the merchant service, very far surpasses his island brother. The following day, the sea being smooth, I was struck with the order and quietness reigning on board. I

felt quite at home, and was much less anxious than I should otherwise have been about our arrival to a day. Our course was south 50, west 142 miles. The 16th, 17th, and 18th passed away as usual. On the 19th we went eight knots under sky-scrapers, all good humour on board. The Yankees seem to make a happy sea life of it. We made our course south 46, west 66 miles, and found ourselves in latitude $33^{\circ} 40'$, longitude $88^{\circ} 13'$ west. On the 20th, part of which day I had spent in reading, in conversing with Mr. Coggishall, the supercargo, and sympathizing with him on his relation of the loss of a paragon wife, I found him to be something of a poet; he was a little more beautiful too in his effusions, than sailor poets usually are. Most of our rhimes are doggrel, it is true, at least those of us who have a yarn to spin; but the amusement after all is in the variety of the thing.

On the 21st we ran from nine to ten knots

upon a bowline, being true marine enjoyment and on the 22d passed to windward of Masafuera, about seventy miles distant. On the 24th our course was, north 74, east 243 miles, with a fine rattling but steady breeze. We supposed ourselves about fifty miles only from Valparaiso, but it was so hazy we could not see the land, which, however, we made next day, distant ten miles, bearing east-north-east, and soon got into port.

After a visit from a friend or two I determined to set off for Santiago without loss of time. On the 27th I started in company with Messrs. Cameron, Bunster, and Mr. Pentland, a naturalist, attached to the Consul at Lima.

Our first day's journey terminated at Casa Blanca about 8 P. M., where, having supped, I retired to as restless a couch as that of Procrustes. We started and reached Santiago, about 2 P. M. I called upon the company's agent, whom I found, like the Sieur O'Reilly,

booted up to the hips, and spurred like a game cock. He was just about mounting his horse to proceed to his family some distance from the city.

The reception I met with was rather strange, and by no means civil, which, coupled with some apparent confusion of face, caused apprehensions to come into my mind which were soon realized.

He complained of the unseasonable time of my coming, as too late to transact business. I intimated that dispatch was necessary, the ship in which I was about to proceed to Coquimbo being on the eve of departure, and that I came up for the express purpose of learning how the affairs of the company stood affected in Chili. Having recovered from a little seeming perturbation he became more cordial, and invited me to dine with him in the country next day.

I attended this appointment and after dinner we repaired to the vineyard, and explained to

each other what had generally occurred with relation to the interests of our employers. Among other things, I was informed by the agent, that he had obtained by "denouncement," a valuable virgin ground, to the southward of Santiago, the indications of which were most promising, though the samples of ores exhibited, did not appear to me to justify any such idea. Also that he had secured possession of a tract of coal country at Concepcion, and should be enabled to furnish the company with all the coals they might want. Contemplating their smelting operations at Coquimbo, I assured him in the most marked way of my thorough belief of his intentions towards the company in this respect, but ere we parted, I made myself certain, from the questions which I put home to this gentleman, touching my suspicions of his having written home to my disparagement, that my recal was on the road.

In the evening I found the card of Mr.

Gilbert, the company's engineer, of whose name I had not even heard mention made by the agent, much less that he was residing there totally idle.

I immediately found him out, and the information I derived from him in this interview threw no small light upon the deep shades of the agent's conduct. He explained to me that he had expressed a repeated desire to proceed to Conception to survey the coal mines, these being an object of the first importance, and upon which the directors had laid great stress, but was informed that the ground had been already occupied by him for his own benefit. He accounted for not having proceeded with Captain Bagnold, the company's other commissioner to the northward, by stating that he had been at variance with that gentleman ever since their first embarkation together, that he had been held, as it were, a mere cypher, and treated with contempt; in fine he rendered such

an account of the whole concern, that what between the intrigues of some and the imbecility of others, and a complete lack of unity in the whole, the prospects of the company wore the most gloomy aspect. Next morning I endeavoured to elicit, without effect, a sufficient reason on the part of the agent, for withholding the information of Mr. Gilbert being at Santiago. He affected indifference, as if, indeed, he was scarcely acquainted with such a person, adding that his services might be presently required in the examination of some extensive gold mines, for which negotiations had been opened, subject to the opinion and approval of Captain Bagnold, who was to give a meeting for that purpose at the estate of the proprietor, between Santiago and Coquimbo.

The following day I transacted the only business at Santiago of real interest to the company, namely, that of a treaty with Mr. Bunster, the present possessor of the celebrated

St. Pedro Nolasco mines, for the working of a copper mine of considerable extent and promise, at a convenient distance from the sea-side, in the district of Copiapo; but as in this contract I agreed that the company should continue to work for twenty years, provided an annual product of twenty per cent. was realized, my colleague, Captain Bagnold, declined subscribing to it. He assigned as a reason that there was no direct permission in the instructions to warrant the taking any mine whatever for such a length of years.

I ask, if it is at all wonderful that these companies should fail? If the agent abroad took any latitude beyond the express letter it was upon his own responsibility; and if he acted up to the letter of his instructions, in most cases he would effect nothing. On the other hand, here was an object obtainable at a trifling expense, with scarce the least risk, which, had it depended upon myself, I should have felt I merited the

designation of a despicable imbecile, had I failed to adventure upon.

I now left Santiago in company with Mr. Pentland, before spoken of, who took an occasional shot when the carriage halted, in pursuit of his professional objects. For my own part I was too gloomy to enjoy any thing, brooding over the loss of my own humble efforts in the company's service, and seeing nothing propitious in prospect. We reached Casa Blanca at 7 P. M., and after staying the night, arrived at Valparaiso on the 2d of February.

I now proposed to embark in the *Auriga* for Coquimbo, and on the 5th went on board, when she stood out of the harbour before a gallant breeze, rolling gunnel under, and the next day at noon we found the port of Coquimbo distant sixty-seven miles, the land exceedingly high. Latitude $31^{\circ} 4'$ south. It now fell calm for nearly twenty-four hours. On the 8th we got pretty close in with the land. The shore

appeared iron bound and by no means inviting to approach too closely. It was not until the 10th that we discovered ourselves, about half past 11 A. M. in the snug cove of Coquimbo, and anchored close to the land. I soon after proceeded to the shore, and slept that night at the house of an old acquaintance, Mr. Edwards, in whose hospitality I shared until I left Coquimbo. To omit here an acknowledgment of my manifold obligations to that gentleman and his family, during my stay, together with Mr. Edwards' strenuous efforts to forward the objects of my mission, would subject me to such a charge of neglect as I am ill-disposed to incur.

CHAPTER VIII.

Journal of Operations at Coquimbo—Occurrences relating principally to the Objects of my Mission—Letter of Recal—Embark in H. M. S. Briton—General Rodil—The Island of Santa Catharina—Charming Climate and Residence—Sail for Rio de Janeiro—View of the Emperor Don Pedro and his Queen—Arrival at Portsmouth.

I now held several conferences with Captain Bagnold, who had been sent out by the company with a party of miners. The various individuals on the company's establishment were introduced to me, and several points of misconception on the part of the Cornish miners settled to our satisfaction. I found the establishment in a very disorganized state, and

consulted with my colleague on the best measures to be pursued, for as yet nothing had been accomplished here for the company's benefit.

The 13th of February I arose at day-break, and disturbing the slumbers of my coadjutor, rode with him to the port, when we came nearer to the point of business than before, and I advised that one of us should start for Copiapo, to determine on the eligibility of working some mines, which I had contracted for with Mr. Bunker in that quarter, nothing else appearing on which to employ the people. We finally agreed to the examination, at all events, of this object.

On the 14th an express arrived, announcing that the Bolivar from Liverpool had reached Valparaiso with a cargo on account of the company. My colleague having determined to proceed to St. Jago, at the solicitation of the company's agent there, I pressed him to a con-

ference before his departure, in which I found it necessary to be decided as to the steps we should pursue, and whether or not we should abandon the Peruvian ground on the part of the company. We therefore went at once into business, and the result was a determination to confine ourselves to Chili, and to recal Mr. Scott and my son from Arica.

On the 20th I rode with Captain Bagnold to the station of the company. I inquired about the port, designing to settle some line of operations to begin with during his absence. He did not seem inclined to arrange any thing, and the prospect of the people remaining in their present state, was both ruinous to the company, and destructive to themselves. I had before suggested to Captain Bagnold the propriety of applying for a tongue of land at the port, on which a smelting-house might be erected, and also a lime-kiln, together with ground for a stone-quarry, to which he agreed, but thought

to be back in time to attend to it himself. Captain Bagnold then set sail for Valparaíso. I now set to, determining that the people should at least cease being idle, and started for the port directly after breakfast. There I called upon the Governor, Señor Pinto, and delivered to him an "Impedimento," in order to get a grant for the company, of land in the port, for the erection of furnaces and a lime-kiln. This he promised should be immediately granted, under the "ordenanza" law, as requested: the former upon a neck of land on the west side of the bay, and the latter upon a bed or stratum of oyster shells close to the beach, in which I included a hill of lime-stone suitable for building.

On the 23d I rose at five o'clock, and determined to introduce a change of system and establish something like order. I spoke to each of the artificers and workmen (part of them in-

habited the cloisters of a convent), upon the necessity of new and vigorous efforts, now that a field was at last opened for their display: I then rode to the port, and addressed the men, there in like manner, returned back to breakfast, and then set out for it again, to establish a regular system of effective work, and to urge the necessity of union and a better disposition among themselves, some being Cornish and others Welsh miners, mixed with London navigators—and therefore constantly bickering.

The next day I rode down to the port at day break, and arrived twenty minutes past 6 o'clock. I found the people at work, clearing away the ground, in anticipation of the government grant. The excavation for the lime-kiln was begun. Some of the navigators were in the hills cutting brushwood, while the Cornishmen were at work, hewing stone out of the quarry, and things began to look a little satisfactorily. The sick people had complained of the badness of the

water, to which they attributed their illness. I therefore employed a man with a mule to proceed daily to the stream, midway towards the city, and bring it of good quality, which step not only gave the people satisfaction, but was of real benefit to those who were indisposed. The remaining days of the month of February, I devoted to business. The furnace was begun upon a rock, a base less liable to be injured in case of earthquakes. The head refiner, Richards, had been previously sent to examine a quantity of refuse slag, about a hundred tons, which Mr. Edwards, of Coquimbo, an old friend, had given me gratis; and the result was that there would be no want of useful and profitable employ in the smelting department, whenever we could begin. The assay gave near fifty per cent of pure copper, and of this there was abundance at every old smelting ground.

I found it necessary to remonstrate with some of the individuals employed, upon their taking

able men as servants, at the expence to the company, of twelve pounds a month; upon which abuse I was obliged to speak my mind pretty freely, threatening to deduct their wages, before I succeeded in setting matters right. At the port things began to wear a better aspect.

March the 1st being St. David's day, I thought a good opportunity to show the people, I was not averse to any thing reasonable in the way of relaxation; and on condition that they forgot all differences, I ordered them money for beer, to enable both Cornish and Welshmen to keep the latter's saint's holiday. I also addressed them on some of their dissipated habits, bade them remember their character as Britons, and recollect the interests of the association that employed them.

On the 2nd, at a little after 6 o'clock, A. M. I reached the port, and found all but one man, a drunken character, in diligent employ, which

was highly satisfactory, as convincing me proper management would soon set things in good order. The foregoing delinquent I threatened with stopping his pay, but in vain. I found a woman belonging to our party very ill. The company's surgeon was not present, nor was there any direct medical assistance to be obtained. The absence of our surgeon was incalculably injurious, as it dispirited the people, and it was distressing to see the sick without the means of relief.

We had now finished a couple of the company's carts, and started them with oxen, which a gentleman was so obliging as to lend us, to ply between the city and port, which saved three dollars a day of expence; I also purchased several mules which were brought from San Juan, and could not be embarked for Lima from the vessel being too small. I gave eight dollars a-piece, designing them to carry slag and ore to the smelting house, from the Tambillo mines. By

the 8th of March, the workmen had made considerable progress with the lime-kiln. The masterly stile of the brick and stone work, caused great surprise to the natives, who had never seen such mechanical neatness displayed before. I got the distance from the city, both ways, measured, and found the beach-road nearly a mile shorter.

Beach way, 7 miles, 7 furlongs, 967 yards.

Road way, 8 miles, 7 furlongs, 93 yards.

We marked out the ground for workmen's dwellings, got up the blacksmith's shop, brought to the kiln about fifty tons of whalebone, scattered on the beach for fuel, and proceeded on the whole satisfactorily.

Mr. Lewis estimated that a canal to the city from the port might be cut for eighty thousand dollars, which, had the company gone on, would have been of great utility, as employment for the navigators, if they chose to accept of the liberal propositions of the government to effect

this object. I was obliged on the 10th to reprove the people for lack of diligence, and particularly the head refiner, from the ill consequences of his example. Until the 14th, I was occupied in various matters and negotiations for the company. I found the woman I have before mentioned getting worse. I had more room made in the hired store-house at the port, and the iron work, and other property left kicking about the beach, brought away and secured.

On the 15th, Capt. Hitchens, our mining captain, was so very unwell, as to be unable to move, and nothing of mining business could be effected without him or some other scientific person; a disagreeable circumstance at such a moment, otherwise things were going on very well, all being actively employed. The mules I had bought were gathering strength at pasture, and would be soon ready for work. On the 16th the lime-kiln was finished, and the people

were diligent and seemed to be in a state of harmony together. The next day we lighted the kiln—our fuel was at present but an heterogeneous mixture of coals, whalebone, and brushwood. I left it burning at 5 p. m., and the people drinking a glass around it for success. The brig Junius arrived, with a mutinous crew, in distress, to which we rendered all possible assistance. I found on the 18th that our lime-kiln answered our expectations; the stone and shell burned slacked well. About twelve o'clock the woman before mentioned was expiring, and died before her husband could arrive from the port. I purchased the remainder of the seventeen mules, which the vessel already spoken of could not take, also a quantity of plank, necessary for buildings on the company's ground for the people and stores.

On the 19th we buried the deceased female, whose name was Griffiths, having requested the favour of the Consul to read the service over her

grave. The funeral was performed with decency, the body being borne with due decorum to the port for interment. A few idle persons threw stones, but no other insult was offered, and all the protestants, and a good many catholics, assembled on the occasion.

On the 23d, having our lime ready, we laid the foundation of the first British smelting furnace in Chili. The next day I found that a man belonging to the Anglo-Chilian company had been among our people, attempting to excite insubordination. In consequence I addressed a letter to the gentlemen of that commission, remonstrating against such conduct, and requesting they would admonish the person who had been guilty of it. Mr. Caldclough, in reply, informed me it had been done, and expressed himself obliged by the method I took to bring the question publicly forward, against a useless character, obtaining six hundred pounds a year for doing literally nothing.

On the 26th, the *Auriga* anchored from Valparaiso. Captain Bagnold having arrived in her, I went over the works with him, and explained † my operations, in which he neither shewed he † took interest or the reverse. From this period, I saw my exertions were of no † service to the † cause, that matters must return to their former channel, and nothing but waste of money to the company ensue in future. I therefore resolved on taking advantage of an offer of Commodore Hull to proceed via Panama for England, in an American frigate, upon having the consent of my colleague, whose hands as well as mine were tied up; but he seemed to submit to it without an effort. I therefore demanded an explicit avowal from him, as to whether he thought or not the interests of the company would † suffer by my absence. He appeared to have received some unfavorable † impression against me from his manner, and I had no difficulty in guessing from what quarter. In fact,

I saw that my interests, which were those of the company, were opposed to the interests of individuals, whom from motives of economy I had prevented (and should again as far as lay in my power) from having unlimited sway over the company's affairs and expenditure. The final result has proved the justice of my views.

I called on Mr. Gilbert, the engineer, arrived in the *Auriga*, who had been sent out by the directors; he had been kept, as I before observed, in a state of inaction that surprised and alarmed me. At a great expense this gentleman's abilities promised proportionate advantages; yet, contrary to his own wishes, he was kept idle, and in a manner very different from that which in his opinion, was contemplated by the court of directors. I did not wish then to enter into any grievances, but thought it was best to conciliate his feelings, and, if possible, to make up all differences. I requested Captain Bagnold to write a joint letter with myself,

requesting Mr. Gilbert's co-operation in matters not strictly within his own sphere of operations. Captain Bagnold declined any co-operation, but had no objection to express a desire to avail himself of Mr. Gilbert's services if required. On the evening of this day I received a letter from England revoking my powers, which left me master of my own operations. This letter was brought by H. M. S. Briton. I felt much relieved by it. I had long seen how the affairs of the directors, and the property of the shareholders had been, at least, mismanaged abroad. I had drawn the conclusion that the mode of proceeding in South America could not but be unsuccessful; and I was anxious that as far as I was individually concerned, as little blame as possible should attach to me.

I now finally arranged for embarkation. Captain Bagnold was not instructed, and therefore did not feel himself warranted in affording me the means of returning home; and had I not

been previously prepared for my departure by the United States frigate, I must have got back how I could. The officers of the Briton, Captain Sir M. Maxwell, kindly gave me a cot, and their gun-room fare, which I shall ever remember with gratitude.

I felt regret, approaching to pain, at taking leave of Mr. Menoyo, with whom I had travelled such long distances, and who had cheerfully borne the fatigues of many a rough and weary league of mountain and plain, desert and forest. In him I left, at all events, a faithful servant of the company.

Coquimbo contains about six thousand inhabitants. It is built like all the other South American towns, with rectangular streets, and is interestingly situated. It is situated on the south side of the river, which is brought into the town itself by a canal, and subdivided into lesser channels, which convey it to the houses and gardens. The country around the town, ex-

cept where it is thus irrigated, is barren. It is, however, capable of improvement by the same means as the par cultivated at present. A trifling expense would accomplish this, for the river runs at a sufficient elevation for rendering fertile many leagues of land, at present lying a perfect waste, consisting of eminences above, and to the northward of the town, which had remained so, according to the old Spanish system of making the sterile districts tributary to the more fertile.

The inhabitants of Coquimbo have from time immemorial been content to obtain their customary supplies from Santiago, while two or three hundred thousand dollars, and proper diligence, would soon make them something independent of their southern neighbours. At the period of my late visit, some capitalists foreseeing what a thriving place it would become, with three mining companies at work, had formed an association, and obtained a grant of a large tract of land,

which, had affairs gone on propitiously, would soon have been changed from a desert into corn-fields.

The port is at some distance from the city, no less than seven miles, measured, as already mentioned, by the perambulator, along the beach, and eight by the upper road. The intermediate space, a marsh from which the sea has retired, being converted into fruit and alfalfa ground, only wants draining to render it extremely valuable. It was also projected to convey the water from the river to the port. The latter is destitute of fresh water, simply because its inhabitants have not had industry or skill to dig deep enough into the earth for it, so as to reach the springs. Several attempts, with this object in view, have indeed been made, and one attempt to the eastward of the village had been attended with partial success. Our civil engineer, Mr. Lewis descended into it, and sent up excellent water from a depth

not exceeding twenty feet, flowing from beneath a stratum of rock, which only wanted blasting, and the object would have been completed. Another well had been dug in the ground belonging to the company, and the labour suspended for the same reason. On taking the line of elevation, and of the strata of clay and gravel between the two wells, we satisfied ourselves that no difficulty remained to laying down pipes for conveying the water to the sea side for the shipping. The latter obtained its supply from a stream, midway between the port and town, by rolling the casks over a sandy beach, at the imminent risk of destruction to the boats. From this object alone a little income would have accrued to the company, as vessels would not have been unwilling to pay even a dollar per cask for it, as is customary in other places, in preference to the risk and inconvenience of the old mode of obtaining it. I had flattered myself with seeing the whole point of Coquimbo

(on which the storehouses of the company stood, and their establishment was forming) covered with verdure, and busy with industry. We were proceeding satisfactorily with these objects, having erected four houses for the people; which remain as I left them; not a stroke of work having been, as I understand, attempted subsequently, owing perhaps to the reception of further restricted powers.

The sea rolls upon the beach with great violence, throwing up immense quantities of large muscles, most delicious eating. The natives, when the tide is falling, collect them in quantities, and carry them to the town. There is an abundance of shell-fish at Coquimbo, besides a great variety of other species, adapted to the refined taste of the most discriminating gourmand.

I was much amused in my frequent journeys between the port and town, to see the diving birds pouncing down from a great elevation

upon their finny prey, twenty or thirty at once, as if in understood concert. Nearer the beach the gull that sweeps the surface of the mightiest ocean of the globe, hovered, watching the crabs, which the heavy surf cast up on the shore. This bird would take them on high and then let them fall on the shingle to crack their shells, and I have seen the same unlucky crab, endure this three or four times, till the object of its torturer was attained. I observed another species of bird of prey, with an open bill formed like scissars, the lower part plowing below the surface of the water, and taking the fish near it, by closing the upper half upon its prisoner.

It was pleasing for one who had known Coquimbo before, to see the alteration effected by the habits of Europeans—the bustle and traffic which the mining companies caused. Coquimbo appeared about to become the most thriving maritime place in Chili. The anchor-

age is always safe and commodious, which that of Valparaiso is not. The increase of export which took place during the time it was occupied by the companies, was from 40,000 to 60,000 quintals: a sufficient proof, that capital and industry were alone wanting to obtain the articles they sought, at least by one company. The smelting operations might have occupied another company, and by uniting agriculture and cattle-breeding with mining, all might have been made to answer ultimately. It was a fallacy to suppose mining alone could pay at Coquimbo any single company, much less three, without becoming *habilitadores*, or adopting the above united system. The old and more opulent mining proprietors possessed generally a large tract of country adjacent to their mines. This not only gave them a sort of feudal and dependent population, but the cattle, pasture, maize, &c., it produced, contributed to the general sustenance and individual profit,

returning a large proportion of the sum paid for the miners' labour.

It is a piece of justice due to the inhabitants of Coquimbo to state, that on the news of the failure in England to meet the bills of acceptance, drawn by the commissioners, abroad, they offered to undergo any possible inconvenience, in respect to time, in awaiting the event, so certain were they that the companies in England had committed an error, which they would rectify on cool reflection, when the panic had subsided. An intelligent commissioner of the Anglo-Chilian Company lately returned, Captain Charters, told me, that nothing could equal the distress of the people, except their liberality. They were dismayed to find their glowing hopes destroyed at a blow, without, as it appeared to them, the slightest reason. Nearly all the companies had obtained, notwithstanding the extravagance and mistakes into which they had been led, from a want of knowledge of the

country, and the system to be pursued, as much property by grant or purchase, as was in real value more than equal to the monies expended. The three companies in Chili might at least have united their interests—what a property and prospects have been prematurely sacrificed!

On the 3rd of April I left Coquimbo. I took my leave with a mixture of joy and regret—of joy, to return home and vindicate my conduct to the company, and of regret, that operations commenced with good prospects and certain of success, with proper management, should be baffled and abandoned, as I foresaw they must be from the mode pursued, and the contra-interests, to those of the company, suffered to influence local measures.

I have already said that mining in South America is a certain source of profit, if properly and economically conducted. The mode is to begin on a limited scale, and extend the cir-

cumference of operations slowly and cautiously. The very extensive means of the different companies in money, managed as they were, contributed to defeat their own ends, and the mode of action, not the principle of the thing, is implicated in the recent failures.

This short journal sketch of operations at Coquimbo, the reader may not find very interesting, but it was necessary for my own satisfaction, and to render the whole more complete. I shall annex to it a few of the incidents on my voyage home.

His majesty's ship Briton sailed from Coquimbo, as I have already observed, on the 3d of April, about 2 P. M. We had a steady breeze and fine weather. Besides myself, General Rodil, the late defender of Callao was passenger, and the guest of Sir Murray Maxwell. He appeared to be a gentlemanly man, of ability and of unquestionable courage and resolution, as his defence of the port of Callao proved.

He had a good deal of what is understood by the "high Castilian" in his air and manner. On the 5th, I began to arrange my papers, and dined pleasantly with my new messmates, whose polite attentions were highly gratifying. The conduct of the master, Mr. Rose, was exceedingly gentlemanly and kind, he having given me the run of his little cabin, a civility of no light moment with such a voyage before me, the lapse of which afforded plenty of time for anxious thoughts. The idea of what the directors might think of me and my proceedings, unknowing the truth, gave me many restless hours ; however, it was some consolation to reflect, that I had at least acted zealously for their best interests, and I accounted for the directors' abated confidence in my judgment, on the ground of their inability, remote as they were from the scene of action, to form a correct opinion.

On the 10th of April, we passed the island of Juan Fernandez, pretty close in with the

JUAN FERNANDEZ.

shore, at least sufficiently so to discover the plots of ground, which have been or are in cultivation. What lasting fame has not the story of Selkirk, through Robinson Crusoe, conferred on this island, I thought, as I looked upon the solitary spot on the ocean, which has caused such glory to De Foe! There lay the scene of delight of all childish minds, in all civilized nations—the dwelling of the imaginary Crusoe and his man Friday. We were now in latitude 33. 57. south longitude 78. 3.

A seafaring passenger like myself, on board a ship of war, feels peculiar pleasure. A fine chief like Sir Murray Maxwell, a gentlemanly set of officers, the men, and the clean, well-trimmed ship:—

And O! the little warlike world within!
The well-reeved guns, the netted canopy,
The hoarse command, the busy humming din,
When at a word, the tops are manned on high—

and then the exhilarating feelings:—

When the fresh breeze is fair as breeze may be,
The white sail set, the gallant frigate tight!—

none can enjoy it like a seaman passenger in one of his majesty's ships during his hours of idleness.

On the 11th of April, Sir Murray Maxwell and General Rodil dined in the gun-room. This day I rose early to enjoy the fine breeze on deck till breakfast. The wind veered round in our teeth, and blew hard enough to bring the frigate under close-reefed topsails and reefed courses; even then she walked at eight knots, making scarcely any observable lee way—a noble ship! On the 13th, I had some conversation with Sir Murray Maxwell, principally on Chilian mining, in which we both agreed, that for specific mining alone, it presented a field for the capital of a large mercantile house, rather than for that of three companies of a million

each. The next day I dined with Sir Murray. We had about this time a cross and troubled sea, which, however, this gallant ship seemed to laugh at, and after the usual alternations of calms and breezes, incidental to these latitudes, we began on the 2d of May to look out for a speedy run to Rio de Janeiro. On the 7th of May we spoke his Brazilian majesty's ship *Paraguesis*, commanded, as I discovered through a glass, by my old friend Captain Welch. He informed us that the British admiral was at Rio, for which we stood, after making Cape St. Mary, having thought to find him at Monte Video.

On the 14th, we made the island of Santa Catherina, and spoke the brig *Mary* from Monte Video. About 10 A. M., we stood in for the harbour, passed the fort of Santa Cruz, and came to an anchor, in a quarter less five fathom water. All the idlers now went on shore before dinner; an agreeable recreation. Next

morning I went to the town of San Miguel with the purser, and after taking refreshment, hired a canoe to what is called the island, for three dollars, where we arrived in time to take a lunch, and ramble before dinner. . Shortly after our arrival there, Sir M. Maxwell and General Rodil appeared, and invited us to dine with them. We called upon the Captain of the port, Don Jose M. Pinto, who insisted on our taking refreshment and a couch at his house, most charmingly situated, on the summit of a height commanding the bay, and a good view of the harbour's mouth, a distance of eighteen miles, yet every thing could be seen passing in and out. The next day we breakfasted with Don Jose, who accompanied us to make purchases in the town, and we returned with him to dinner, after perambulating round it. At six P. M., we embarked to return to the frigate, which we reached at ten, and the next day set sail for Rio.

As I have not seen in any work a description

of Santa Catherina, I will just give a loose sketch of it here. The bay, or rather harbour, is very beautiful, and is entered by the north passage, that on the south being rarely used, although nearest to the part of the island on which the town stands. Passing some small islands, and getting into a deep bay (the spot where the ships water), opens as you proceed, discovering on the larboard, the castle of San Jose, and farther on stands the castle of Santa Cruz, at which you lie by and send a boat on shore to communicate with the governor. The soundings are regular, and there appears to be sufficient depth for large ships to go up close to the town. In the harbour, however, I saw brigs only, of about two hundred tons burthen. The boatmen told us that Portuguese frigates were in the habit of riding there.

The best anchorage with a view to a vessel touching merely for refreshment, is to bring

the flag-staff on Santa Cruz to bear N. E. by N. The castle at San Jose, E. half N. or E. by N. and Rat Island, S. by E. five fathoms, which is about the regular depth of soundings. Merchant vessels could of course anchor much closer to the shore. The water procurable there is excellent, and easily obtained from a rivulet which the boat can reach. This spot is noted for the most delicious oysters in the world (at least we thought them so), which are found in great abundance upon the rocks, nor will the visitor ever forget his rambles among the delightful, cool, and almost impervious foliage, which covers the face of this fine country. Wherever the hand of man has been applied, abundance seems to follow. Although the patches of culture evince little care, industry, or economy in management, yet there is enough produced for all the purposes of the inhabitants, and to spare. Maize, rice, coffee, sugar, and yams, are the chief produce, and are found sepa-

rately parcelled out, in each plantation, however small it may be.

A range of hills rises from the side of the water, clustered with wood, and so inviting in aspect that they arrest the traveller, and seem to forbid his approach beyond. Small paths intersect from house to house, which are so enveloped in foliage that they are not fairly distinguishable, until announced by the barking of a dog, or the coming unexpectedly upon some of their inmates. The inhabitants appear to be peaceable and contented, living as in primeval ages upon the earth immediately around them, and strangers to wants beyond the limits of their little territory.

The main land sweeps round into a magnificent bay, on the right extremity of which, there is a village called St. Michael's, three miles from the anchorage. There horses may be obtained to ride, or canoes to ferry across from the main to St. Catherine. The price of a bullock is

from sixteen to twenty dollars. A turkey costs from half a crown to five shillings. Fowls and vegetables are cheap, giving, as the passengers in vessels must, the first price asked. In the country, and to an inhabitant these articles are infinitely more reasonable. At St. Michael's, I noticed a rice mill, situated in a delightful cove, down which a water-fall rushes over a gentle declivity, most romantically formed, at the bottom of which, the sleek, jetty negresses were seen laving their pliant and glossy limbs, and cracking jokes upon the stranger passing near. The water falls upon the flies of the mill wheel, conducted from the height above by a wooden aqueduct elevated upon supporters, about thirty feet high, and placed at equal distances. It is overgrown with moss and creepers, as picturesque as the surrounding scenery. I observed a loom in one of the cottages, in which the family weave their common linen. In the same cottage were domiciled as usual, the entire race,

from the grandmother to the youngest scion of the stock. A group of twelve females, among the younger branches; a couple of young women just married, as their appearance led me to suppose, and other females not eighteen years of age, with their children playing about the floor, were among the number. We only saw one man, whom we suspected to be the head of the family.

The island of Santa Catherina is certainly the most beautiful I ever saw, with a soil as rich as the face of nature is charming. The captain of the port, Don Jose M. Pinto, who was remarkably kind to us, said that the island was about thirty miles long by six broad, and contained twelve thousand inhabitants, of which five thousand might be reckoned for the town. The streets are after the usual plan of those in the Spanish and Portuguese colonies, built at right angles (in the present instance from north to south), out of a square in the centre. The

houses were not remarkable for size or cleanliness, and they displayed the usual motley of inhabitants witnessed in the towns of the new world, but there was here a more than wonted appearance of content impressed upon their faces. ¶ They seemed to possess enough to gratify their moderate desires in reference to all that man really needs below, of wealth and the fruits of industry.

It being Whit Sunday, there was a great deal of mummerly kept up, of offerings and superstitious observances, made at the shrine of the Holy Ghost, to which it seemed as if all the inhabitants of the island had repaired, carrying what they could afford, chiefly articles of diet, apparel, and ornaments. These were presented in form to the receiver-general who sat in state with a silver crown on his head, and two or three of the prettiest children of the place with him, to represent young angels, as foils to set him off. The gifts thus offered are afterwards put

up to sale, having received some charm in addition to enhance their value. The profits are said to be applied to the liquidation of the cost of wax candles; but what portion is so applied my informant, a good catholic, and worthy man to boot, no more understood than an honest John Bull does of the proceedings of a select vestry disbursement in his own parish.

Senhor Pinto's house commands, as before observed, a noble view of sea and land. The walk down from it to the town, is through an avenue of rich evergreens, giving an idea of the unfading abodes described in Eastern fiction. Land in the island is not to be had in plenty, being much occupied: for a spot in front of Senhor Pinto's house, having upon it a dilapidated dwelling, with five acres—about eighty yards in front, and one hundred and sixty or one hundred and eighty deep—three thousand five hundred dollars, or nearly six hundred pounds

sterling, was demanded. The land, it is true, had been well cultivated, but was now

“The spot where many a garden flower grows wild.”

Slavery, of a very mild and gentle character, exists here, and there is a redundancy of black population. It is singular that Spain and Portugal, so conspicuous at home for harshness of feeling, civil animosities, tinctured with great cruelty, and a disposition carrying the idea of cunning ferocity, should use their slaves more kindly than any of the northern and more civilized countries, as Holland, England, or France. Such, however, is the fact. The Spaniard while he trampled in the dust the Indian native of South America, treated the negro as if conscious of the felony he had committed in stealing him from his native home. In Santa Catherina, the Portuguese slave labour seems light and even enviable to that in other slave coun-

tries, and certainly his toil is not to be compared with that of the English labourer, dwelling amid the day-spring of freedom.

Large quantities of farina, grown in the country, are exported from Santa Catherina, upon which the slave population of the Brazils is materially supported. Flax is also grown in considerable quantities in this island. The females manufacture artificial flowers in wreaths and bunches, from portions of the finny and feathery tribe, with which the island abounds. They even work shells into bosquets, in a very ingenious way, with great fidelity of imitation to nature. For him who desires to enjoy the term of his existence beyond the tumult of ambition, the fluctuation and cares of commerce, the bustle and hard climes of the north,—who wishes to dwell in the bosom of nature, and can be happy on his little estate with all that earth can afford of natural advantages, Santa Catherina is the abode; and, after all, perhaps, such a life is

the best. For a protestant there is no catholic country so agreeable ; that religion is here in its least objectionable form. Neither a convent, nunnery, or monk, is to be seen on the spot.

General Rodil gave us all a treat on shore at this island ; and on demanding the amount for our own separate refreshment, we found this generous Spaniard had anticipated us in our payment. On the ship's arrival, he gave her company three bullocks, and to the boats' crew an ounce of gold. He likewise sent off a large boat load of beef, vegetables, poultry, and similar articles.

We set sail from Santa Catherina on the 19th of May. On the 25th we made the land near Rio de Janeiro, where we anchored at five P. M. on the 27th. The next morning I went on shore, and delivered some letters of which I was the bearer to Colonel Cunningham. I in vain attempted to get the sight of a newspaper until the 30th, and then I found that the

shares of mining companies in South America were at a discount. On the 31st, learning that the Emperor Don Pedro would hear religious service at the Royal Chapel, I attended, and listened to some fine sacred music, and to the unnatural warblings of sundry castrati, who were kept for the vocal edification of this pious court. I next availed myself of a kind invitation to accompany Mr. D. Price, to whom I am indebted for many civilities, into the country, to see Captain Barker, formerly of the Northampton, East India Company's Service, who had a plantation there. I visited him a second time on the 4th of June. Twenty years ago he was styled 'old Bob Barker,' and I now saw him just the same in person, seemingly contented enough, and surrounded with a negro population, all mixing together, as if one family. From the appearance of content exhibited, I should think the slaves are kindly treated. They seemed comfortable, and to taste what too

many of our poor labourers do not, peace of mind and plenty of food. For their liberty, the latter must drink life's bitter cup to the dregs; the slave, without liberty, leads here a happy, and, I believe, an enjoying life.

I talked over old times and past events with my friend Captain Barker, and went on the 7th of June, on a mule to Praya Grande. Thence with a French party I sailed across to the city of San Sebastian; the ladies singing us a Troubadour song or two on our passage. On the 10th I heard bad rumours of the mining associations at home, and went in the evening to the Opera, which, though thinly attended, was much improved. There was a very good orchestra, the "Fall of Palmyra" was well got up; the chief character sustained by a giant eunuch and his sister. Finding the Briton was to remain a day or two longer, I went on the 11th to see a collection of birds and insects, and on the 12th to the Chapel Royal to the *Te Deum*

service. I saw the Emperor Don Pedro, with the Empress close to him, as they got into their carriage, followed by the princesses and the young duke or duchess of ———, for I forget which, one of the imperial illegitimates. The mistress of the emperor, and first maid of honour to the queen, had the same honours paid her by the troops kneeling, as those of the royal blood themselves. This was outdoing the age of Louis XIV.!

On the 15th we were towed from the harbour by the boats of the British men of war, on the station, and on the 16th were once more out of sight of land for old England.

On the 13th of August we found ourselves in lat. 49. 27. N., Long. 7. 2. W., and spoke the Brazen sloop of war, with a number of vessels, passing near the Lizard. The next day we exchanged signals with a man of war off Plymouth, and were soon anchored at Portsmouth. This ends my journal.

CHAPTER IX.

Summary of the progress of the South American Revolution
—Retarded by the clergy at Cordova—Gaucho guerillas near Salta—Dr. Redhead—Influence of Lima in checking the independents—Revolution in Chili—Don Bernardo O'Higgins—San Martin—Ossorio—Alarm at Valparaiso—Sluggishness of the patriots after the battle of Maypo—Naval force—Operations of Cochrane, Miller, and other chiefs—Arrival of Bolivar in Peru.

THE rise, progress, and termination, of the South American revolution, have been already detailed to the world by more than one writer. A very condensed sketch of these events as bearing on passages in the foregoing journal, and therefore in some degree connected with it, will not, it is hoped, be deemed superfluous. A few brief words will suffice for this purpose,

and furnish an epitome of events, the result of which is of great importance to every nation, and will be more so in future. The infatuated disregard of the mother country to the claims of the colonists, her flagitious system of rule, and the abandonment of the South Americans to a usurper, by the prostration of Spain to Napoleon, were the main causes of the late successful struggle, and the emancipation of the New World.

The progress of this revolution, as affecting the provinces of the Rio de la Plata, Chili, and Peru, may be gathered from the following brief outline. The germs of insurrection were sown, and the feeling of innate power for the struggle first imbibed, a little anterior to the invasion of the Rio de la Plata by Sir H. Popham and General Beresford, in 1806. The result of that ill-managed expedition confirmed previous impressions. A military spirit was imbibed by the people, to which the events connected with

the mother country, added fresh force, until 1810, when every thing being matured, the mine was sprung which shook the Spanish rule in America to its centre, and finally overturned it. Its effect was first more immediately felt within the limits of the Banda Oriental, and throughout the royalty of Buenos Ayres. Patriotism and the desire of freedom, burst forth and spread with unexampled rapidity, rousing every district to arms. The more isolated dependencies, such as Entre Rios, Corrientes, and Misiones, observed this state of things with great earnestness, while the western states, San Luis, San Juan, Cuyo, and Rioja, looked on with still less concern, imagining that some beneficial change was at hand, but feeling that it was time enough for them to prepare to act, when its objects became more definite. Those provinces situated in the seemingly inevitable line which the course of the revolution must follow, as Santa Fè, Cordova, St. Jago del Estero, Tucuman, and Salta,

watched the progress of its advance with indescribable feelings. They saw with no small alarm how fearfully it must affect their local relations, and were alarmed at the shock it would occasion, and the dangerous uncertainty as to its ultimate effect.

At Cordova, the head-quarters of the viceroyalty and of the papal church influence, the ecclesiastics, although they could not suppress the flame, contrived to smother it for a time. Yet even there it broke out at intervals, exhibiting its inextinguishable principle. From Cordova it extended to Tucuman, where it was fed with fresh fuel. There General Belgrano, imbued with an ardent spirit of freedom, conducted its arms and principles to Salta, thence to Potosi, La Paz, and the whole of the Desaguadero, but was subsequently obliged to retrace his steps, for want of succours to sustain himself against the opposing royalists under General Pezuela, and others. The chagrin consequent

on this retrograde state of affairs, cost Belgrano his life.

A re-action now ensued, and the power of the revolutionists, in the intestine war which followed, seemed nearly exhausted beneath the strength of the royalists. In Jujuy and Salta, the patriot efforts appeared extinguished and the successful forces pushed on for Tucuman. I never could obtain any particular details of the predatory attacks of the royalist forces on the northern provinces; but after the defeat of General Tristan, by Belgrano, on the plains of Salta, a most harassing guerilla warfare was kept up by the Gaucho population, headed by the gallant General Guemes, which made the ultimate possession of Salta by the royalists, very harassing and hazardous. They were from this cause always obliged to retreat without effecting their grand object in possessing themselves of Tucuman, the inhabitants of

which, to their immortal honour, defended it nobly.

In this state of horrible warfare things remained until 1825, during which time Salta bore the brunt of conflict, being often the point of contest and possession, between the two belligerent parties. One day patriot, the next royalist; its inhabitants were divided against each other; all traffic lost; and in intervals of comparative quiet, depending for the necessaries of existence upon a precarious smuggling traffic. The Gauchos of the province without, acted solely upon the principle of exterminating the Godos at any risk; while many of the people of the city were, from motives of self-interest, inclined to favour the Godos, and to preserve their remaining property, in order to keep open some channel for trade and subsistence. Hence the force against the common enemy in the field was weakened, and dissensions at one time arose between General Guemes, and the

principal inhabitants of the city. The latter now extol his character and gallantry, in defence of the province, against overwhelming forces, to which he ultimately fell a sacrifice. It is not a little curious, that the defence of Salta against the royalists was most effectually aided by the cool and energetic conduct of Doctor Joseph Redhead, a gentleman of undoubted honour and integrity, who had been an inhabitant of Salta fifteen years. During this period his philanthropic disposition had shewn itself, in rendering to all around him the benefits of his knowledge. To his own countrymen, if any chanced to enter the city walls, his kindness and good offices were largely dispensed.

On the Pacific or western side of the Andes, the maritime position of the provinces favoured auxiliary aid from others, not in a state of arms, or from Spain itself. The proximity of the Peruvian capital, Lima, lengthened out the war

and gave it a character of peculiar acrimony. At the conclusion, Chili was burthened with a large national debt, the interest of which it cannot liquidate; besides the evils of absurd compromises (for example, the monopolies of the principal custom duties), the bad management of the treasury and individual peculation render matters worse. The faith of the government, too, pledged for an absolute impossibility, has been broken. Besides the interest of her loans being unpaid, the individual distress is far spread.

Whether the revolution in Chili broke out at the same time as that of Buenos Ayres, spontaneously or in concert, with that province, I cannot tell, but it was certainly not managed with equal address. While the two principal families were contending who should best sustain its influence, the royalist Ossorio outwitted them both. The facts are these. The families Carrera and La Reyna, were both

deeply interested in the independent cause; both wished for an ascendancy of power, through its means, but of course differed in the mode of carrying it into effect. Their differences were once settled by the intervention of that brave, ill-requited, but excellent man, Bernardo O'Higgins; afterwards supreme director of Chili.* The differences broke out again; the parties met in the field, and a battle was the result, in which Carrera was successful. The danger of the country was now increased by the arrival of additional reinforcements from Lima, under General Ossorio. O'Higgins was again invested with the command, but it was too late. The patriots were attacked and de-

* This is in substance nearly as it was told me by General O'Higgins, who was in the habit of receiving the English at his evening punch, and of conversing about England. He had been educated here, and was fond of talking about it. He would question me for hours together about Richmond, the theatre of his juvenile career and exploits.

feated at Rancagua, but contrived to unite with their gallant leader, and cut their way through the Spanish lines, to escape over the Cordillera to Mendoza. This was in 1814. General Osorio then marched unmolested to St. Iago, and the Spanish flag waved over that capital. The patriot cause was again involved in gloom. The wealth, power, and influence of the Godos was exerted to keep down the spirit of the patriots, and consolidate their successes. In Valparaiso, Coquimbo, and Concepcion, no means were left untried to prevent the revival of the subjugated party; when on a sudden the Chilian provinces once more were in a flame with the fire of liberty.

General San Martin entered Chili by the passes of Cuevas and Putaendo: a movement which displayed great military talent, and obtained him the appellation of the Hannibal of the Andes. The battle of Chacabuco was the result of this clever *coup de main*, and again the

banners of independence were unfurled in the capital of Chili.

On the news of San Martin's victory reaching Lima, the royalists, with indefatigable perseverance, again sent out a force amounting to eight thousand men, under General Ossorio, son-in-law to the viceroy, to restore the fallen fortunes of old Spain. Once more unhappy Chili was destined to see the blood of her sons flow in the contest for independence. Meanwhile the patriots were not idle. They raised an army of six thousand men with great celerity, and sent it forth to meet the assailants. This force was rendered more imposing by numerous Gaucho auxiliaries, forming guerilla parties of a most formidable character. The patriots came up with the royalists and caught them almost in a *cul de sac* in the town of Talca. The patriot army took up a position (on the 19th of March 1818,) which cut off the only possible chance of escape from the royalists, and for them to ad-

vance or retreat was almost equal destruction. It was expected that a flag of truce would be sent in the morning, to treat of capitulation, and the different patriot regiments bivouacked confident in their security.

General Ossorio seems to have been a military chief of great boldness and resources. In the dead of the night, when the camp of his enemy was buried in sleep, he made (at the instance, it is said, of the second in command, General Ordonnez), a sudden and impetuous attack upon the part of the patriot force which had advanced to the "Cancharayada" of Talka. There was no time to form, so silent and cautious was the advance of the royalists. A panic now took place, and the principal division of the assailed force fled, and was utterly broken. A division under General Las Heras, between whom and the royalists a quebrada interposed, and the troops of which had time to form or were more on alert, covered the retreat, with the assistance

of the field artillery, under the present General Miller. Thus with little loss to the royalists, the whole of the patriot force, except the division of General Las Heras, was destroyed in an hour. It fortunately happened that the forces of Ossorio in the darkness of the night mistook friends for enemies, and a dreadful confusion ensued, which prevented their following up their success, or they might have marched to, and taken possession of St. Iago.

At this very time I was on board the *Windham*, at anchor in the bay of Valparaiso. It was not known there that Las Heras had preserved his division unbroken, and of San Martin no tidings at all were received. All was given up for lost, and a blockading squadron which I had eluded a few days previously, seemed only waiting the change of flags at the Forts, to consider how they should dispose of the British. Orders, it was said, had been given by the vice-king of Lima, to purge the

country of all foreigners, and such orders were found in the captured despatches of General Ossorio afterwards.

The Ontario, American sloop of war, Captain Biddel, happened to be then lying in the harbour, and from him I received instructions in the event of our being obliged to act on the defensive. I had an excellent ship's company, with forty guns, and there were also three or four British ships well armed besides. Captain Biddel handsomely chose the post of honour, proposing to lead out with the American vessels to windward. In this state of uncertainty several days passed away, while we lay at single anchor, ready for a start. A variety of reports were in circulation, which kept the patriots in a state of horrid suspense. Nightly communications between the Godos on shore, and on board the blockading squadron, were kept up; the latter hourly expecting to enter the port. Had they been British vessels, as it was, they would have

been masters of it. The day succeeding the news of the patriot's defeat, Lord Cochrane would have carried it in an hour.

A week elapsed before the truth was known that the royalists had not followed up their successes, and that the scattered forces of the patriots were again concentrating themselves. By exertions which did everlasting honour to the director and general-in-chief, a patriot force of five thousand men, was again ready for the field by the 5th of April, on which day the glorious battle of Maypo decided the fate of Chili, and of the royalist power there. The details of this celebrated combat are not new to the public, nor how well the field was won by the patriots, and contested by the royalists. Yet the general failing of the South Americans, the not following up a victory, was displayed there. Nothing prevented the embarkation of the victorious army and the capture of Lima. So great was the panic in that city when the news of the

·overthrow of General Ossorio arrived, that five hundred men might have taken the place, and it was ready to surrender to any hostile force, however small. Lord Cochrane would have gone and executed the task with a similar force, and have saved three years of war, and as many millions of money perhaps to repair the oversight. The enterprise was self-evident, and the success certain to every English and American, at St. Iago, with whom it was the common topic of conversation.

The success of the patriots encouraged them to make fresh efforts. In the beginning of November, 1819, the Chilians had Lord Cochrane for naval commander-in-chief, and a squadron consisting of the seven following vessels under his command, viz., the *O'Higgins*, forty-eight guns, Admiral Lord Cochrane, Captain Foster, R. N. ; *Lautaro*, forty-four, Captain Guise, R. N. ; *San Martin*, sixty-four, Admiral Blanco, Captain Wilkinson, E. I. service; Cha-

cabuco, eighteen, Captain Carter, Lieut. R. N. ; Galvarino, eighteen, Captain Spry, Lieut. R. N. ; Araucano, sixteen, Captain Crosbie, Lieut. R. N. ; Puyredon, fourteen, Captain Prunier, a Frenchman ; making a total of two hundred and twenty-two guns.

With the foregoing force, Lord Cochrane entered the bay of Callao, and attacked the forts. His reception was warmer than he had expected ; but not being supported, from some unexplained circumstances, after hammering away at the forts single handed, and destroying one of the principle angles, he was forced to avail himself of the sea breeze, and haul off. Besides that of the forts, his lordship sustained the fire of the Esmeralda and Venganza frigates, fitted as floating batteries. A blockade of the port was now established, and Lord Cochrane sailed himself to the northward, taking possession of Payta, Supe, and other maritime dependencies of the vice royalty. Admiral Blanco,

who had been left in charge of the blockade, needing supplies, returned to Chili, for which he was tried by a court martial, and acquitted. *

A second expedition against Callao was attempted. It sailed on the 12th of September, 1819. Congreve rockets were now employed, but from some default in the material, supposed to be contrived by the Spanish prisoners who worked in the arsenal, they failed. A gallant but unsuccessful assault was then made, and next a diversion, by means of some troops under the command of Colonel Charles, a friend and follower of Sir Robert Wilson in the career of glory. This brave officer proceeded with his force in the *Lautaro*, *Capt. Guise*, and another vessel, to *Pisco*, where he landed and captured the place; but this success was purchased with his life, and Major Miller was shot through the hand and liver.

The squadron now once more returned to *Valparaiso*, and his Lordship sailed again to the

northward, in hope of falling in with the *Prueba* frigate, the only remaining vessel of the Cadiz squadron last sent out. He found her at Guayaquil, with guns and stores out, and so lightened, as to proceed up the river beyond his reach. He succeeded, however, in capturing some valuable ships, laden with the timber for which that place is noted. Uneasy at not having achieved as much as he desired, though more than any other man could have done under his circumstances, he stood in for Conception on his return. There he had a conference with General Fryere, the governor, from whom he obtained a small force, consisting of only two hundred and fifty rank and file. With these his Lordship achieved one of the most brilliant exploits ever recorded in the naval annals of any country, by capturing Valdivia, the Gibraltar of the Pacific. The storming party was led by Majors Buchef and Miller. This exploit was succeeded by an attack upon Chiloe, where the

gallant Miller was again wounded. This part of the expedition failed, merely from want of sufficient force, the people of the island defending themselves with their characteristic bravery. Shortly after this, in the beginning of 1820, Lord Cochrane returned to Valparaiso, and thus terminated what might be called his second expedition.

New exertions both naval and military, were now made with a vigour never before equalled in Chili, aided by the presence of the hero of Chacabuco and Maypo. By the 20th of August, four thousand two hundred men were raised. General Aranales landed at Pisco, and destroyed the royalist army sent against him in that quarter, under General O'Reilly. Subsequently Colonel Miller was detached to Arica, which he captured and obliged to hoist the patriot colours. He then proceeded to Tacna, which he in like manner subdued, killing upwards of one thousand three hundred of the enemy in the

course of his successes, with only three hundred under his own command. He then re-embarked, and in August, 1821, he surprised Pisco at night, and conquered Quilca, of which district he assumed the command. Having seen matters settled in that quarter, he repaired to Lima, and received the command of the light companies of the liberating army, which had possession of that capital.

To return to the main body, under Lord Cochrane and General San Martin—the army after recruiting fifty days at Pisco, sailed on the 26th of October, and reached Callao on the 29th. While San Martin proceeded to the port of Ancou, a little to the north of Lima, Lord Cochrane planned the attack of the *Esmeralda*, Spanish frigate, by boarding, and carried her in the night, with the boats of his squadron, headed by himself, although moored under the batteries of Callao. There were but two hundred and fifty men volunteers, in the fourteen

boats, that achieved this daring and almost unequalled action. The Esmeralda was well defended, and Lord Cochrane was wounded in the thigh. Titles have been bestowed in England for actions not a tenth part as brilliant, skilful, or determined.

The army being finally disembarked at Haücho, in November 1820, the head-quarters were fixed in the town of Húara, a few miles inland, and in January 1821, Lima might be said to have been invested, as the army was within three leagues of it. When from some inexplicable cause the troops made a retrograde movement, and it was not until July 1821, that the capital of Peru hoisted patriot colours.

At this moment, when all seemed to proceed towards the crowning hour of success, the scene became clouded. Dissensions broke out between Lord Cochrane and San Martin, after the occupation of Lima. These were followed by disasters, caused, some affirmed, by the oppression

of Montegudo, who was entrusted with the reins of government by San Martin, during his own absence at Guayaquil, and a revolution took place in the city. General San Martín had gone to hold a conference with Bolivar, the subject of which is not known. The latter had conquered the Spaniards in Quito, held the whole country in that quarter in possession, and was preparing to end his southern labours, by uniting his forces with those of the Peruvians.

San Martin on returning to Lima, found his minister sent off, and a congress sitting, without reference to his opinion on the subject. He tendered his resignation of the protectorship, and embarked for Chili. Upon this act of abjuration, the Congress of Lima declared itself a sovereign constituent body. On his return to Chili, Lord Cochrane, disgusted, immediately quitted the service of the republic.

At this moment the unsettled state of affairs, gave a chance of recovery to the vanquished

interests, and a reversion again to the old regime. The Spanish Generals Canterac and Valdez, in Peru (during the imbecile governments that followed San Martin's resignation), had succeeded in recovering a considerable portion of lost ground. At last they regained military possession of Lima itself, and La Serna was proclaimed viceroy by appointment of his master Ferdinand VII.

The people were then kept in a state of unsettled and feverish feeling, respecting the ultimate result of affairs, until the arrival of the renowned Bolivar. He had with him a force adequate to turn the tide of victory. The royalist generals were again obliged to retire before this hero, pursued as his genius saw most expedient, until the battle of Junin, on the 9th of December 1824, and that of Ayacucho upon new year's day 1825. These battles were decisive in their results, more so than any fought during the war, and they crowned South

American independence. In the first of these great combats, the cavalry was commanded by Nicochea, who being severely wounded, it devolved upon an Englishman, General Miller, who afterwards sustained himself gloriously as its chief in the battle, and was subsequently appointed governor of Potosi, as I have already stated. There is no instance of a foreigner in America, who, as a junior, held himself more independent, or, as a senior, governed with a more even hand, or was more respected and beloved, than this brave man. It is no small glory to England to see her sons thus distinguishing themselves in all parts of the world, honourably, bravely and blamelessly, in the great and glorious cause of liberty.

APPENDIX.

*To the Shareholders of the Chili and Peruvian
Mining Association.*

*Croom's Hill, Greenwich,
July 20th, 1827.*

GENTLEMEN,

IF the objects of the Trustees, my original employers, had been happily attained instead of failing prematurely, I should have been preserved from appearing before the public, and it would have been left for abler hands than mine, to detail the route I took, and describe its localities. It was impossible, however, that I could divest myself of the thought, that my name was

more largely connected with your disappointed expectations than it really merited, and that I had an indispensable duty still remaining to discharge, by rendering you an account of the occupation of my time, and of the funds committed to my discretion.

That I might have gone to Chili, and expended nearly the amount of a first instalment, while I passed my hours in comparative enjoyment, you must readily admit was in my power. Yet I did not select my path of duty over so pleasant and easy a surface. By diverging from the direct road to Chili, I chose a route of endurance and fatigue, deeming myself bound to disregard every thing but what I saw was for the benefit of the Association; and who but myself was in the situation capable of judging on this subject? This determination ultimately cost me dear. It is a matter of deep regret and mortification, that my conduct in respect to the course I pursued, has not been duly appreciated. In

zeal for the Company's interests, and by following the mode which time has since proved would have led to better results, I lost two of the most valuable years of my life, and sunk the cost of three hundred shares in the Company.

In the preceding pages I have given the diary of my proceedings. In the Appendix is a list of some of my contracts in your behalf, and of my cash expenditure. In my possession are numerous copies of other contracts, documents, and letters, scrupulously correct, but so voluminous, as to forbid my laying them before you here. It suffices to say, that the engagements I entered into were sufficient to employ more than the capital of the Association, and were provisionally made so as not to involve you beyond the limits you might afterwards choose to go. I trust it will appear from these pages, that I well weighed the singular and critical situation in which I was placed, on my arrival at the scene of action; that I proceeded with

the direct view of husbanding your resources, until the season of monopoly and competition should cease; and that the best moment for attaining your objects should find you with inexhausted means. Nay, I had even calculated in my own mind on something like a re-action at home, and governed myself accordingly.

I further take the liberty of observing, that with the exception of the limited praise which the chairman at the general meeting of Proprietors (held on the 2nd of September last), bestowed upon me, by saying I had acted "zealously and economically," and further "that they collectively and individually acquitted me of any blame, except that of being mistaken in the alteration" (in my route), but that I "had at the same time been the cause of saving much money to the Company," (see *New Times*, Nov. 2,)—save this, I have not received any record whatever of my demeanour towards the Company, good, bad, or indifferent. An

omission wounding to my pride, and justifying me amply in recurring to the present mode of vindicating my conduct.

I regret furthermore, the necessity of drawing your attention to the correspondence of Mr. Barnard, the Company's agent in Chili, and to the necessity there was, that I should remove any illiberal impression on your minds caused by that gentleman's insidious letters, dated April 14th, 1825, handed to the Directors, and of January 5th, 1826, to my colleague Captain Bagnold. In point of fact, it is now immaterial in what manner the insinuations they contained might have acted in ruffling the confidence which the "Executive" of the Company had previously reposed in my "judgment and discretion." Nevertheless something is due to the private feeling of wishing to look well with all men, while it is most material, that he who goes out of the common track to injure others for private ends, should both himself and his motives,

be subjected to public scrutiny. I would have noticed the subject at greater length, and given all Mr. Barnard's and my own letters in this Appendix, but the writer is absent from this country, and cannot answer in person to the observations I should necessarily make upon them.

When an individual takes upon himself a public situation of any kind, being amenable to open censure for default of conduct or integrity, it follows, that if censured without ground, he owes to himself a public vindication, and will be deemed either knave or coward if he neglect to make it, and subject himself in silence to unjust implications.

I must not neglect the present opportunity of returning thanks in a particular manner to one of the Directors (Mr. Attwood, M. P.), for the handsome offer he made, to take up the unaccepted bills which I had drawn on account of the Association, to avoid personal inconvenience,

which his kind consideration had anticipated might happen on my arrival home.

I am,

Gentlemen, &c.

JOSEPH ANDREWS.

An Account of the various Mines obtained by Captain Andrews, in the way of Assets; including a Statement of the Company's Affairs and Property, at the period of his leaving Coquimbo.

Four mining appurtenances of the Famatina Hill, contracted for, to work with a per centage on the liquid annual amount, to the proprietor, Don Jose Fraguero. No expenses incurred.

A valuable grant of land, obtained of the Government at Coquimbo, on which was erecting a smelting furnace, and buildings for the people.

Also a grant by the sea-side, whereon was erected a lime-kiln, and adjacent thereto a hill of limestone, from which a considerable quantity of stone had already been squared for warehouses.

Fifty mining appurtenances in the province of Tucuman, the property of the Government, together with a freehold of twenty-five acres of rich land, adjoining the city, as a home

pasturage for mules and cattle; also a single mine, private property.

Mine purchased of Marcus Zeruco, near Tupiza, called Montanio. Eighty-eight marks per caxon.

Copper mine, called Brealito, provisionally contracted for to relinquish if not worked in time. No expences incurred.

Contract with Don Gregorio Burgos. (See Contract.)

Sundry Contracts in Peru, with Don Mariano Ortez Gallo and Dr. Rua, also provisional on time. No expenses incurred.

Sundry Mules and property left at Tacna, in charge of Mr. Scott, and with the Company's store-keeper at Coquimbo, as per receipts, value unknown.

Carriage left with Dr. Redhead at Salta.

Grant of sundry denounced mines in the copper mineral of Tambillo.

An Abstract of Nineteen Months Expenditure during my Journey in the Service of the Company, including Mr. Scott and Mr. Menoyo. From leaving England, January 28th, 1825, and arriving at Buenos Ayres, 26th March, thence round to Potosi, and back to Portsmouth August 18th, 1826.

Charges for sundry Equipments, &c. at Buenos Ayres; for the Journey of my Son to Chili; myself and Secretary, to Cordova; purchase of a Carriage, and Seventeen Mules	1367	4	0
Cash paid on account of Mines purchased, and Contracts provisionally effected, at Cordova, Tucuman, Salta, Tupiza, Potosi, and twenty-five acres of land at Tucuman, . . .	3813	7	0
Road Expences; Mule Forage, and appurtenances for Mountain Travelling, &c. &c. Passage out, and home	2117	1	0
Resident Expences at the Cities and Towns of Buenos Ayres, Cordova, Santiago del Estero, Tucuman, Salta, Jujuy, Tupiza, Potosi, Tacna, Arica, Vulparaíso, Santiago de Chili, Coquimbo, &c.	1178	5	0
Disbursements in Expresses, Peons, Postillions, Capitaz, Servants' Wages	570	6	0
Cash drawn on account of Salaries. Mr. Menoyo, Secretary; Mr. Scott, Mineralogist	3055	4	0
	12,403	4	0
Deduct Sundries sold	323	5	0
	12,079	7	0
Captain Andrews Dr. to Cash for Salary	2034	0	0
	Dollars	10,045	5 0

10,045 5 0 Exchange 48d. per dollar.

APPENDIX TO VOL. I.

I HAVE said in the preface that from finding on my arrival in South America the state of affairs entirely different from that contemplated when I left England, I thought myself justified in exercising my judgment in the way my instructions warranted me in doing under such very peculiar circumstances; they state—“*Your conduct must frequently be regulated by circumstances, which they cannot foresee—a great deal must therefore be left to your judgment and discretion.*”

The prospectus states, “*the Directors not to be restricted to working mines in Chili and Peru; but in the event of their considering it desirable, they are to be authorised to contract for working them in other parts of South America.*”

The general instructions mentioned in the preface, as given by me to my son and others, for their guidance in treating for mines, were as follow :—

1. The Company will supply the capital, necessary as well for the general purposes of working mines, as for providing machinery and scientific persons to carry the contracts you may enter upon into prompt effect.

2. Will work upon the plan of a per centage upon the nett annual products, realized at the conclusion of each

year; that is to say, after deducting all expences, with interest on the capital employed. Of course much must be left to your own judgment in this respect, but I will observe that I think about from 5 to 10 per cent. is sufficient for abandoned or newly discovered mines, whose yield is problematical; and up to 25 per cent. for those actually in work and of known reputation; but in cases of mines of very superior richness, it must be with you discretionary to exceed this limit, always in these circumstances taking the best advice.

3. Will contract with proprietors to hire mines for a term of years (always stipulating for the longest period possible) at an annual rental, with powers to renew if the Company should desire for a further period.

4. Will engage to work in partnership, that the proprietor be subject to his proportion of profit and loss in working the mines; the Company to supply the capital and interest of money to be chargeable in account; in this case it must be stipulated that no interference shall take place on the part of the proprietor, and that the Company shall have the sole direction, and management, of the mine and works.

5. To stipulate in every contract that the Company may desist from working, whenever the mines cease to yield a competent profit.—Say from 10 per cent to 25 per cent upon the nett annual product.)

6. In cases of effecting Contracts for purchase to any serious amount, it will be necessary to refer to the Company for ratification. And for those of lesser import you may at once conclude (taking the advice of Messrs.

and if ratification is found necessary, stipulate for that of mine.

It will be always as well, where practicable, to gain a probationary term to work mines; under these proposals say six to twelve months, giving a share of the profits arising during such probation to the owner, thus to be able to form a better idea of the value of the mine.

JOSEPH ANDREWS.

Jujuy, Sept. 23d, 1825.

The following are the instructions of the directors to me, on which the foregoing "general instructions" to my son are grounded. "Your son, Mr. Joseph Andrews, is appointed to accompany you as a confidential assistant, to be employed either in the conveyance of important despatches, or in any other manner in which his services may appear most conducive with the interests of the company."

Page 27—"Gaucho boots."

Botas de Potro, worn on the legs by the peasantry of the United provinces of the Rio de la Plata, are boots made of the skin of the legs of a horse, mare, or colt, taken off entire, the bend of the leg serving to form the heel of the boot; the hinder legs answer the purpose best, being better adapted to the shape of the foot; when taken off, the operator, who is generally the wearer, turns it inside out, and with his knife pares away the substance until it is as thin as parchment, except in that part destined for the sole and the back of the heel, which is left untouched;

he then proceeds to scrape away the hair from the grain, until quite clean, after which he draws the boots on his legs in some measure to fit them to the shape; they are then left until nearly dry, when he proceeds to rub them between his hands until they are perfectly pliable, and continues this operation until they are quite dry, and are adapted to the shape required; the sole is of course left in a hard and horny state; the boot is then cut off at the point of the foot, so that the great toe may project for the purpose of admission into the small iron stirrup: when worn these boots are tied with garters below the knee, and the top is turned down in the antique Spanish fashion, so that they have a very elegant appearance when worn with short drawers or breeches. The skin of a white horse is always preferred, on account of its delicate appearance, resembling parchment; but all others are used. The price of the common boots, when prepared, is six reals, but the white ones sell for eight. A superior and more delicate kind of boot is also made from the skin of a cat, taken off entire, one cat skin serving for each leg: these are worth from two to three dollars.

Page 34.—*General Liniers.*

I regret I could not obtain a memoir of General Linier, which I hoped to introduce here.

Page 46.—*Famatina Privilege.*

There is a code of laws called, "Ordenanza de Mi-

neria," which regulates the working of all the mines. In consequence of its regulations, miners, as soon as they discover a vein, must give information to the judge of mines, who marks out the necessary ground, and then they are permitted to begin working. The miner must pay for the land or property given to him, and also for measuring the land, journeys, &c. After this he is obliged to fulfil the conditions contained in the same ordinance, whether for the good order and regularity of the works, or on account of the contracted stipulations. First, he is obliged to work the mine as soon as the right of it has been granted to him, allowing the term of three months from the date of the title to make what is called the "well of ordinance," which must be eighteen feet deep, keeping a perpendicular line; otherwise he will lose his right in it, the same thing will happen if the working of the mine is totally abandoned.

By the 14th article of the privilege is granted to the Company the right of considering itself specially protected by fact and legal right in the possession of every mineral to be found in the province. Without any other authority but the contract, the Company is able to undertake working mines without taking possession of them beforehand (as is the law for every miner in consequence of the "ordinance,") and this without any intervention from a judge. The working being an independent one, nothing is to be paid.

In the same manner the Company, by the 19th article, is freed from making what is called the "ordinance well," and from any appointed time to begin working. It

is sufficient to make a well one yard deep, that no one, within a distance of a hundred yards round the well, shall legally examine or make discoveries. Every place marked in such a manner is considered belonging to the Company, and to be respected.

By the article 18th is granted the "enjoying" (*el desfrute*), a technical term in mining, the signification of which, to be understood, requires explanation. Miners, by the legal method for working, are obliged to keep always in order the vault of the mine, the expence of which is defrayed by a part (generally by half) the produce of the mine itself. The result is, that the miner always sees one half of his riches without being able to take them away, they being left for pillars of support; the intention of the law being to provide against the falling in of the hills by the hollows so made by the miners, and that the veins may be kept open which time or new discoveries may produce. Experience has shown the consequences in mines from not observing this practice.

It is not necessary to speak either of the advantages of paying eight per cent. instead of eleven and a half for the duty of (Cobo y Quinto) granted by the 4th article, nor of the possessing a "privilege" which places at the will of the Company and with advantageous conditions, the greatest, and, without doubt, the richest mines of the country.

The obligation that the 4th article requires, of furnishing quicksilver to miners, is no more than another source of profit, considering the price at which it is to be purchased in the markets of Europe, the free importation of it being allowed.

Page 199.—*Contract with the Tucumanese Government.*

An Agreement made between Don Xavier Paz, Minister and Secretary to the Government of the Province of Tucuman of the one part, and Joseph Andrews, Esq. of the other part.

WHEREAS the said Minister and Secretary, Don Xavier Paz, commissioned by the Government of the province of Tucuman, and Joseph Andrews, commissioned by a Company, formed in London, for the working of South American Mines, having met, have agreed as follows:—

1. The aforesaid Minister, Don Xavier Paz, on behalf of the said Government, hereby assigns and makes over to the said London Company, the faculty and power to explore and work fifty mining appurtenances of gold, silver, or other metals, in the Cerro Bayo-Sierrania de Anconquixa, and throughout the whole extension of the province of Tucuman.

2. And the said Minister, Don Xavier Paz, engages to protect and further in every possible way equally the works as the persons employed by the said Company, guaranteeing to said persons the greatest protection of the laws, and the most friendly reception from the inhabitants of the province.

3. And the said Minister, Don Xavier Paz, further engages that the said Company shall be free to abandon any of the said mining appurtenances, whenever its agents

shall deem it expedient, and to replace them with other and new researches.

4. And the said Minister, Don Xavier Paz, further engages that the introduction of quicksilver, machinery, mining instruments, and other necessary articles, destined in good faith for the works of the Company, shall be free from all duties ; but all other introductions shall be subject to the ordinary duties of the province.

5. And the said Minister, Don Xavier Paz, further engages that the said Company shall be protected in *right* and *deed* throughout the mineral districts granted in Art. 1., and that without other authority than this contract, can commence its works, giving previous advice of the situation, class, and bearings of the veins, to the end that they may be duly registered in the archives of the Government, and for the necessary securing to the Company the right of proprietary to such appurtenances.

6. Now these presents further witness, and the said Joseph Andrews, on behalf of the said Company, hereby stipulates, that the said Company shall send, with the least possible delay, persons adequate to explore and select the said fifty mining appurtenances granted in Art. 1., and that within the period of twenty months from the date of these presents it shall have commenced its operations.

7. And the aforementioned Joseph Andrews, on behalf of the said Company, further engages, that at the expiration of three years from the date hereof, the said Company shall forfeit its claim to such appurtenances as are comprehended under this contract, which at that time shall not be actually in work, it being understood, that

the aforementioned fixed limits shall not be obligatory in cases of shipwreck or other events or disasters not within the said Company's power to have avoided; but with a provision that the Company shall conserve a right of preference to form a new contract with the Government which may exist at such time in the said province.

8. And the said Joseph Andrews further agrees that the said Company shall pay eight per cent. in lieu of the Cobo y Quinto duty, and further agrees to give an additional six per cent for the benefit of the province upon the nett annual proceeds, that is to say, extracting all the expenses relative to the working the said mines or arising therefrom.

9. And the said Joseph Andrews, on behalf of the said Company, further engages to give an additional two per cent. from the said nett annual proceeds so realized, for the purpose of establishing and supporting a College of Practical Sciences and a Lancasterian School in Tucuman; and for the better realization of this interesting object, the aforesaid Joseph Andrews on behalf of the said Company, engages to give and send at its expence, elementary, mathematical and scientific instruments, a chemical laboratory, and apparatus necessary to teach mineralogy, and also a collection of European minerals as a basis for a museum, all which shall be provided by the Company at such period as the establishment to which they are destined, shall be about to be realized.

10. Now these presents further witness, and the aforesaid Minister, Don Xavier Paz, on behalf of the government,

further engages to destine and have in readiness a suitable edifice, for the establishment of the said college, and, with a view to promote this beneficent undertaking and to encourage practical and scientific persons, engages to grant to each person with a family emigrating to establish themselves in this province, a portion of land equal in extent to two cuadradas, adjacent to the city.

11. And, furthermore, the said Minister, Don Xavier Paz, hereby invites the said Company to become members of the junta that shall be formed with the title and prerogatives of Directors and Trustees of the funds of the establishments, mentioned in Art. 9. of this agreement, and to form one fourth of the representation, with correspondent suffrages, in the resolutions adopted by the said Junta.

12. Now these presents further witness, and it is hereby mutually agreed, that if after the mines have been two years in actual work, that is to say, if at the expiration of five years from the date of this contract, it shall be found that the two per cent. given in Art. 9, is inadequate to the establishing the institutions to which it is destined, the House of Representatives of the said province shall be at liberty to apply the said two per cent. to any other uses which shall appear most beneficial to the country.

13. And it is hereby further and mutually agreed, and the said Joseph Andrews, on behalf of the said Company, engages that if when the mines of the said province are worked, and their prosecution shall be found eligible, and that it shall be to the general interest, that the said Company shall then provide all the machinery and

instruments necessary to the establishing a mint ; and that the sum of the value of the said machines and instruments, shall be considered as a loan to the said province, at the interest of five per cent. per annum.

And the said Minister, Don Xavier Paz, on behalf of the government of the said province, engages, in consideration of the above subsidy, that the bullion and metals that the said Company may send to the said mint for coinage, appertaining to its own mines, shall be coined with only one half of the usual mint profits, that is to say, the gains resulting from the alloys in the Company's own metals, shall be divided in equal moieties ; it being always understood, that this arrangement shall be in force until the sums so advanced by the said Company shall be paid, the which loan shall be liquidated in the way of duties and imposts, that may become due from the Company to the government.

14. And further it is mutually agreed, that the Company shall be at liberty to direct its mining operations, in such method as it shall conceive to be most conducive to the prosperity of its works, such method not having a prejudicial result general or particular.

15. Now these presents further witness, and the said Minister, Don Xavier Paz, stipulates on behalf of the aforesaid government of Tucuman, that until the legislature shall frame and adopt new and fixed mining ordinances, the existing laws shall be in force, except wherein they are avoided or rendered nugatory by any article of this contract.

Agreed and signed in the said City of Tucuman, this

eleventh day of August, in the year of our Lord One Thousand Eight Hundred and Twenty-five.

DON XAVIER PAZ.
JOSEPH ANDREWS.

Translation of Don Xavier Lopez's Ratification.

Don Xavier Lopez, Colonel Major, Governor, and Captain General of the province of Tucuman; finding myself fully authorised and empowered by the Honourable Junta of Representatives, to ratify and confirm the anterior contract, celebrated between the Minister and Secretary of Government, Don Xavier Paz and Don Jose Andrews, agent of a society of London, and seeing the within exactly conformable with that agreed upon by the said Honourable Representation, I ratify and approve it in all its parts.

In Tucuman, the 12th day of August of 1825.

(Signed) DON XAVIER LOPEZ.
X. PAZ (Secretary.)

Translation of the Official Note of the Junta of Representatives, to the Government to ratify the same.

*Hall of Representatives, Tucuman,
August 8, 1825.*

Having discussed with the greatest consideration, in several sessions, the contract relative to working the

mines of this province, which the Government presented to the Hall of Representatives to receive the sanction of the law, finding it at last admissible under the terms in which the adjoined copy is given, signed by the Secretary of the said hall, in the meeting of this day, have accorded to authorise the executive to approve and confirm the said contract, conferring the necessary power for this act, and ordering a competent number of copies to be printed, with a note at the bottom, stating, that those which were published before are invalidated and without effect—from order of the honourable hall it is communicated to the governor of the province by the president, who subscribes, ratifying the protests of his particular consideration and esteem.

JOSE AUGUSTIN MOLINA, President.
MANUAL DE LACOA, Secretary.

To the Governor Intendent and Captain General
of the Province.

* * * Seven copies have been signed in English, and eight in Spanish.

Page 281.—“ *Conferring with Dr. Redhead on the subject of my mission.*”

The following is the extract of a letter from this gentleman to whom I had written on my advance towards Salta. It exhibits Dr. Redhead's zeal for the interests of the

company, as might be shewn in numerous other communications of a similar character from the same gentleman, in stronger colours; it also shows that I took precautions while in my advance towards Peru, to clear my way in front, and waste as little time as possible in attaining the objects of my mission:—

“ Some agents of companies have been here (at Salta), and others are come. Apprized of their obscure manœuvres, and of their intentions of obtaining privileges by anticipating false reports as to the pretensions of the company you represent, I have thought it incumbent on me to endeavour to disconcert them by plain truth. I have written a letter to one of the members of the legislature on the subject, and have had explications with him. That letter, for want of more official notice, will be laid before the Junta in due time, that is, should it be necessary to suspend deliberations until you appear. Should more be necessary, I will present myself by writing to that corporation. In short, nothing will be omitted to prevent untimely measures, that private interest is endeavouring to obtain. I think, however, their views will be frustrated, for all the members of the Junta are aware of your coming; and in the session of the 27th, in which the subject was spoken of, they appeared opposed to exclusive privilege; nevertheless, it is important that you should appear to settle fluctuating ideas, that may perhaps at length receive a direction prejudicial to the country, and to the interest of those you represent; for this reason I write these few lines to hasten your departure from Tucuman, although I suppose you already on the road.”

Page 293.—¹*Negotiation with the Widow of the late General Olañeta.*"

Mr. Joseph Andrews, on the part of a Company in London for working Mines in South America, and Donna Josefa Marquieguy, Widow of Don Pedro Antonio de Olañeta, have agreed upon the Articles that follow.

Donna Josefa de Marquieguy makes over to Mr. Joseph Andrews, under the following conditions, the mineral of Choroma, consisting of the mines called La Concepcion, and La Blanca, with all their appurtenances, namely, the works, the house in the square of Tupiza, and everything whatever belonging to the said mines, as likewise the mine of Donna Gregoria Montellano, which is contiguous to the said ones of Donna Josefa Marquieguy, in case that a legal right to it should be proved.

Mr. Joseph Andrews shall receive from Don Miguel Altube, in virtue of a power which Donna Josefa Marquieguy shall give him all the documents relative to the property of the said mines and their dependencies, that he may obtain from them sufficient information of their situation and legitimacy, as likewise a knowledge of the sums owing by the said mines.

Donna Josefa Marquieguy binds herself not to dispose of the said mines until Mr. Joseph Andrews gives notice to Dr. Joseph Redhead, which he must do within one hundred and twenty days from the present date, during which time the said Mr. Joseph Andrews must resolve upon the purchase or non-purchase of the said mines.

In case the said Mr. Joseph Andrews should resolve to purchase the said mines of Donna Josefa Marquieguy, he engages to pay for them the sum of twenty-two thousand five hundred dollars, in bills at ninety days sight, to be drawn upon the bankers of the company represented by the said Mr. Joseph Andrews, engaging himself at the same time to satisfy all the creditors who can prove claims upon the said mines.

And as a document for the persons interested therein, we sign, before witnesses, in Salta, the 17th of September 1825.

Note.—If in the term of one hundred and twenty days, stated in the foregoing article, some unforeseen circumstance should occur which may retard the clearing up of the debts and legitimacy of the property of the said mines, Mr. Andrews engages to give timely notice thereof, that in consequence of it the term necessary for realizing this contract may be prolonged. Date as above.

(Signed) JOSEFA MARQUIEGUY DE OLANETA,
JOSEPH ANDREWS.

As Witnesses { ANDRES DE VGURRIZA,
JOSEPH REDHEAD,
JUAN ANTO. DE MURUA.

APPENDIX TO VOL. II.

Page 5.—“ *Decree of the Government promulgated shortly after I quitted Salta.*”

The honourable Junta of Representatives of the province of Salta, belonging to the state of the Río de la Plata, has resolved upon, and decreed the following law.

Art. 1. Every inhabitant of the globe who shall employ his capital and industry in the province shall enjoy the full protection of the government and laws, for the safety of his person, the inviolability of his property, and liberty of opinion, upon the same footing as the natives of the province.

2. In order to encourage mining in the province, as being one of the most important branches of industry, mines are declared to be the private property of whoever shall discover them and work them.

3. No exclusive privileges are permitted in this branch, and such can only be granted in consequence of a law, when the result of this franchise and the comparison of

the industry of the country with that of Europe, may render them necessary.

4. The elaboration of minerals is declared free from all duty, and free in the same acceptation the extraction of metals from the province, as likewise the introduction of the machines and quicksilver necessary for working mines.

5. For the greater security of the discoverers and workers of mines, the foregoing article is declared irreversible during the term of thirty years, in consequence of which it shall have the force and value of a private contract.

6. The same shall be communicated to the executive power, for its publication, circulation, and other relative objects.

Done in the Hall of Sessions, in Salta, the 24th of December, 1825.

VICTORINO SOLA, President.

DR. PEDRO BUÍTRAGO, Sec. ad inter.

Salta, December 29th 1825.—Let the above resolution be put into execution, and printed in order to be circulated.

ARANALES.

DR. BUSTAMANTE, Secretary.

Page 18.—“ *In the P'ayas of the celeb atell queb'ada of Tipuani, &c.*”

It shews the avidity with which the agents of the mining

companies in South America proceeded at this time, that while the ink of the agreement with Don Ildafonso Villamil was yet wet, another individual stepped in and paid down half of the stipulated advance of 60,000 dollars demanded, guaranteeing the remaining 30,000 within a month, being the instalment of our provisional agreement, in case it should be ratified by the company. The following note respecting Tipuani may not be deemed uninteresting.

The river TIPUANI runs from the eastern Cordillera of La Paz, called *Ancoma*. At the bottom of the snowy mountain is situated the town of Zorata, which is the rendezvous of all the miners and travellers who go to that auriferous river. From Zorata you have to ascend almost perpendicularly to the summit of the mountain, a distance of thirty miles. From the summit appears eastwardly, the cold country, called *Puna*, in the centre of which is the great lake of Titicaca. This region is metallic, and inhabited by native Indians, with numerous herds of vicuñas, guanacos, alpachas, and llamas, as well as with sheep: the productions of the soil are potatoes, barley, and other nutritious roots, which supply food for the Indians.

The eastern side of the Cordillera is covered with vegetation; the shrubs and plants are remarkably vigorous and odoriferous; and the climate softens so sensibly, that the barometer perceptibly ascends as you descend. The waters which are continually rushing with the greatest rapidity from this stupendous snowy mountain form the mighty river Tipuani. At the distance of fifteen miles of the summit,

which is called *Amicapa*, the river increases (immense forests appearing in view) and runs about forty leagues, roaring and precipitating itself between two high and narrow mountains, until it reaches the village of Tipuani, where it loses its rapidity, and the country opens in gentle undulations. This tract is inhabited by monkies, and birds of unparalleled beauty and song.

In the sands of this river (Tipuani) are sometimes found small pieces of pure gold of 23. 2. carats, and in the sides of the river, are mines of the finest gold. The method of working them is as follows:—When the miner, according to his calculation, or practical knowledge, thinks proper to select the spot, he clears the sand and great stones, to remove which he uses gunpowder and makes a shaft (*pique*); as he proceeds, he meets with a kind of reddish clay, (*venerillo*) in which is found small pieces of gold: farther on is the *venero*, which is a greenish, and more compact kind of clay, mixed with smooth, heavy stones of red colour, which are the sure signs of finding a quantity of gold. After having passed this clay or mortar, the miner finds a kind of slate, called *peña*, very solid, which is considered the bottom or bed of the river. The gold is found embodied in the *peña*, mixed with dark blue and reddish mortar.

The roads leading to the mines are very dangerous, in consequence of the perpendicularity of the mountains. The above mines are said to be situated near one of the branches of the river Amazon, by which a communication might be opened from them to the Atlantic.

Page 59. - "*Method of Amalgamation.*"

The Choromo mines have the peculiar advantage of being at a very moderate elevation; they have a good mining population, living in a village at its foot with abundant resources of water at hand, for crushing the ores and amalgamating. The basis of an establishment was already laid on the premises of Don Miguel Altube, which would command all the business of reducing the ores throughout the whole Sierra, on account of the proximity of the works to the mines.

Wood for smelting purposes is not found nearer than eight or nine miles, but this distance is no object, if found convenient eventually to erect smelting furnaces, &c. The metallic ores of Choromo, are negrillos in paniso, with some little paco or plomo silver ore, rich galena, and sulphuret of silver, with iron, arsenic, antimony, &c. in a matrix of decayed felspar, &c. The pacos are different species of ocre. The Olañeta mine has been worked one hundred and sixty yards in depth, and greatly in a lateral direction. The water is said not to be very deep, or in great quantity. According to the old miner, Marcus Zeruco, who worked at it at the period of its first inundation, it appears the commonest efforts would have kept the springs under. The mine of Burgos is entirely dry: the rock is hard, and only to be worked by blasting, as the "gangue" is hard quartz, with pyrites, both sulphurated and arsenical.

These mines have been shamefully ill worked. Although

there are immense galleries, it would cost much labour and expense to render them practicable for trams. Moreover the shafts are all oblique, so that the use of gins, skits, or machinery, for raising the ore cannot be easily applied. Still there is room for immense improvement in the method of conducting the works. Under present circumstances, the class of tools required, would be common driving and blasting tools, one or two light windlasses, and a drag tram: heavy machinery might be afterwards brought if necessary. No pumps would be required for that part of the Choromo belonging to Burgos. The other, which is flooded, would be relieved when the Socobon was completed. Ventilation seems to be the principal object, in the event of any European working there. Labourers in general in the province (Chichas) have from eight to twelve dollars per month, miners from four to eight reals a day: they are numerous.

It is worthy notice that there is a road from Salta (differing only about ten leagues from the mountainous one over which we passed), by which carriage conveyance might be effected, not only to Tupiza, but even as far as Cusco. Want of settlers, and of course accommodation for travellers, has been assigned by some as a reason why this route has never been adopted. The truth is that the old Spaniards having established the high road to Peru, by the present road, had their views in keeping it up. The road is along the bed of a river, passing at a distance of twelve miles only from Tupiza, near Salina. This river is said to wind its course round the mountains, through the interior

of Upper Peru. Round Tupiza are many mineral hills, besides Choromo (whilst gold is found in almost every quebrada and mountain). Those collectively called the minerals of Chichas are the following: the excellent mineral of Portugalette, ten leagues distant; greatly celebrated for the extent and certainty of the veins, rather than the richness of their yield, which is generally from twenty to fifty marcs per caxon. The San Besente, Montserrate, Chacaya, San Antonio, Tasna, Ubina, and these join to Lipez, Esmeraco, &c. which are all reported rich mineral districts. But these latter minerals have not the advantage of the Choromo, water being scarce and distant, though the veins generally speaking are more solid and steady. The whole country moreover is a desert, with the exception of here and there a scanty glen; of course the necessities of life are comparatively scarce and high priced.

The following is a copy of a Contract concluded on behalf of the Company with Don Gregorio Burgos for his mine at Choromo.

Whereas the said Joseph Andrews, on behalf of the Chilian and Peruvian mining Company formed in London, and Don Gregorio Burgos, miner and inhabitant of the town of Tupiza, having met have agreed as follows:

1. The said Joseph Andrews on behalf of the Company engages to work two and a half mining appurtenances on the same vein, and adjoining the appurtenances of the late General Don Pedro Antonio de Olañeta; that is to say, the half appurtenance called La Blanca, the one Estaca,

adjoining the Blanca towards the east, called Coñifronton, and the other still further to the east, called Dolores, the said two and a half appurtenances being in the Boca Mina, called La Blanca, in the mountain of Choromo, also one appurtenance situated in the Quebrada Colorada, called Cata de Arza, and one other named the Exco-mulgada, in Colpayo, the whole said four and half appurtenances being the property of Don Gregorio Burgos in the mineral of Choroma, to be worked agreeable to mineral practice upon the veins and branches which the said Don Gregorio Burgos shall manifest during the period of two years and a half from the date of this document, the said Don Gregorio Burgos engaging to provide the miners necessary for the said undertaking; and at the end of the said two years and a half, after deducting all costs and duties that shall have been incurred, the said Joseph Andrews agrees that the liquid product shall be divided in equal moieties between the two contracting parties.

2. And the said Joseph Andrews further engages that the said Company shall commence its works within eighteen months from this date, and continue the same to the end of two years and a half, or to such intermediate period as the two contracting parties shall agree to conclude the contract of sale; shipwrecks, and events not within human foresight to avoid, always excepted.

3. Now these presents further witness, and the said Don Gregorio Burgos hereby engages for his part duly to deliver up the said appurtenances to the said Company or its agents, when they shall arrive at the said mineral, to

establish the works as mentioned in the first article, and at the time specified therein.

4. And the said Don Gregorio Burgos further compromises at the expiration of the said term of two years and a half, to sell the said appurtenances in the sum that shall be then agreed upon between two appraisers, to be chosen by the contracting parties, it being understood that if the said appraisers should find any difficulty in the adjustment of the price, they shall name a third person, whose decision shall be binding, and obligatory to the parties without further appeal.*

5. And it is mutually agreed between the said Joseph Andrews and Don Gregorio Burgos, that respective agents shall be appointed by the parties in the labours to be established in the said mineral, it being the business of the Company's agent to direct the works, &c., and that of Don Gregorio Burgos to animate them, and especially to instruct the said Company's servants in all the local circumstances, &c., of which they may be ignorant, and which ought to rule in the labours, such as the tasks, payment of wages, and other customary usages; and moreover that each agent shall keep a cash book of the products and expenditure incurred in the works, which

* The agreement for the payment of this mine I held over for two years, in order to give time for the Company to form their establishment, and in contemplation that the great reduction which it was easy to see must take place in the price of mines, might diminish the above valuation in favour of the company.

at the end of each month shall be checked and countersigned by both parties.

6. And further, it is mutually agreed that this contract being duly signed, the said Gregorio Burgos shall receive in Potosi, of the said Joseph Andrews, the sum of two thousand dollars, which shall be considered as an advance upon the liquid product dividable within the year, or of the sum of sale which the contracting parties may agree upon; and in case of failure of the veins or working, so that a loss should occur, that then the personal property of the said Gregorio Burgos shall be answerable, and the said two thousand dollars shall be recovered as a just debt.

And it is further mutually stipulated between the contracting parties, and the said Gregorio Burgos for his part agrees, that the said appurtenances shall remain mortgaged in faith and security for the above-said amount of two thousand dollars, and for the due fulfilment of all the articles of this contract, and equally the said two thousand dollars shall remain as a security for any failure of the articles of this agreement by the Company.

Done and signed in the town of Tupiza, on this paper, for want of sealed paper, October seventh, One Thousand Eight Hundred and Twenty-five.

JOSEPH ANDREWS.
GREGORIO BURGOS.
IGO. MIGL. ANTO. ALTUBE.
BENJAMIN C. C. SCOTT.

Page 169.—*New Guinea.*

The navigator, on his route to the Indian or China seas, by St. George's Channel or Dampier's Straits, and especially while coursing it along the shores of New Guinea, reflects with surprise and regret upon our utter ignorance of even the localities of that indubitably rich and extensive island.

Its situation on the map, with relation to New Holland, is most interesting: it is scarcely too much to say that it is the key to the Moluccas and Phillipines, and as comprehending the latitudinal parallels of Java, and a portion of Sumatra, promises all the indigenous resources of those prolific islands.

On my return from an eastern voyage by those seas, I desired to draw the attention of His Majesty's government to the object, of at least running down its Northern coast, and I accordingly tendered proposals through Lord Bathurst's office, to furnish ship-room gratis, upon conditions that a protecting marine force, with scientific persons and naturalists, were supplied at the public expense; and it is only due in justice to observe, that I experienced every encouragement to adventure on this enterprise, as appears by the following letter, from the then Secretary to the Foreign Office, Mr. Goulburn:—

“Mr. Goulburn presents his compliments to Captain Andrews, and begs to inform him that having had some

communication with the Admiralty, on the subject of his proposal to survey the Coast of New Guinea, the Lords Commissioners are perfectly disposed to assist him in such an undertaking. Mr. Goulburn has therefore to request that Captain Andrews would call upon one of the Secretaries of the Admiralty, who is authorised to make the necessary arrangements with him. Mr. G. encloses a note of introduction to Mr. Croker.

“Downing-street, Sept. 15, 1817.”

In consequence of this note, I waited upon Mr. Croker, who assured me I should receive every assistance in his power. It only now remained with Sir Joseph Banks to select efficient persons for the voyage; he came to town at that time but once a week, and being, in addition, afflicted with the gout, great delay ensued. Sir Joseph, in our last interview, complained of the difficulty of finding the proper scientific and other persons; but said he felt particularly interested in every thing relative to the shores where he had touched with Cook, at the same time noticing the hostile manner of the natives, which had induced them to return to the ship. Since that time no accounts exist, that I know of, detailing any intercourse by the English with the main land of New Guinea. Sir Joseph thought as I do, that the country is one of great natural advantages, as far as his brief view of it enabled him to judge, and he seemed much pleased with the proposition I made to explore it. I detained the vessel to the last possible moment

awaiting the fulfilment of this object by Sir Joseph, until I could remain no longer. Had matters been otherwise, some of the inhabitants of that fine country, by this time, with the aid of a few intelligent missionaries, might have been half civilized, and a lucrative market established for British manufactures.

New Guinea, otherwise called Papua, extends according to the present imperfect outline on the charts, from the Pacific equator to about the 12th degree of south latitude, and has a longitudinal range of near 20 degrees, that is, from 130 to 150 east; the information hitherto derived has been from the mere casual touching on the coast of vessels for refreshments, whose crews, intimidated by the ferocious appearance of the natives, returned to their boats almost as soon as they had effected a landing.

In the instance to which I have alluded, we anchored under an island adjacent to the main land.

This island was clothed with deep foliage down to the beach, along which, as we pulled to a more open situation for the boat, the natives, screened by the wood, announced our approach with savage yells, betokening no very friendly reception; but we found on gaining the shore, that these were characteristic shoutings of joy. Three British huzzas would perhaps have been equally extraordinary and alarming to a people in a perfect state of nudity, men and women.

The natives *debouched* from the woods in great numbers, and surrounding the boat, would have dragged her up,

crew and all, as they do their canoes on the beach, upon which our people thought it necessary to assume a defensive attitude, which they soon understood, falling back at our suggestion, to a line marked with a cutlass in the sand, as a neutral or parley ground, and seemingly in implicit obedience to their superior moulded, but frightful looking chief. To our insignia of peace, a white flag, he waved a green branch, and on our returning our muskets, &c. to the boat, they laid aside their weapons, and in half an hour, they were as intimate with us as though we had been brothers. A sharp look out was of course kept to see if they resumed their arms, but we were shortly satisfied of their friendly intentions towards us: our interchanges of civilities and barter were arranged in due form through the medium of their chiefs; indeed our boats were soon crammed with poultry, plaintains, and various sorts of fruit. Of the animal species we only noticed the dog. They seemed at first to object to our cutting down some of their trees for fuel, of which we were in great want, but they soon became reconciled upon our presenting them with a cocked hat, a few bottles, knives, and beads, and some patches of red cloth; in particular, pieces of the Times newspaper were in request, the characters of which, struck them as something very extraordinary, and they actually gave us a boat-load of sugar canes for the printed heading part of a number. We moreover presented them with a goat in kid, and planted a patch of ground with potatoes. Although we could not persuade them to come over the gangway of the vessel, no doubt from apprehension of treachery, they let us know that they were

not prone to it themselves. Two of our seamen had wandered from the boat, and remained a day and a night in the island; they returned to us after being hospitably treated by the natives, both men and women. We were not so much surprised at the shyness of these people, when we found afterwards, that one of them had been shot, by a ball from a musket. The wounded person, was a man about fifty years of age, and from his gestures we could make out that some ship having formerly anchored there, the crew had got into an affray with the natives, and were authors of the accident: it is more than probable the sailors took their shoutings and demeanour as aggressive. They were very anxious we should remain, to aid them against a hostile attack, as we imagined, from their neighbours, the New Britain Islanders, they pointing in that direction.

Their war implements were bows, arrows, and slings, with which latter, they very dexterously brought down birds; they had also shields for defence. An officer of the 73rd regiment with us, shot a gull with a rifle, which terrified them exceedingly, and their observations on this, induced them no doubt to solicit our assistance. Their sling stones, properly rounded, they carried in hempen nets, curiously worked. Their fishing lines were also of hemp, very ingeniously twisted. We observed that they possessed the pan-pipes for music. Their canoes were well constructed, but neither so large nor so handsomely carved as those, which subsequently visited us from the main land. Their plantain and sugar cane patches were arranged with uniformity, and in a good state of culture.

The prime minister, as we supposed, from the deference paid him, intimated the desire of the king to see us, who, by his gestures, we judged lay sick in a distant part of the island.

The boats from the main land of New Guinea, gave us in exchange for such articles as suited their fancy, before mentioned, a great variety of shells, many of a description entirely unique; also armlets, cut out of (as we conceived from the size,) the solid part of elephants' teeth, bows, arrows, &c. These are now in the possession of Mrs. Beaumont, of Portman Square, . Specimens of wild nutmegs and other spices were also received in exchange. I remarked that the New Guinea canoes generally contained nine or ten persons, but whatever their number was, they had always an odd individual, whom we conjectured to be a priest, whose instep was marked or seared, as if with a hot iron.

The advantage of a settlement on the west end of this island cannot fail of being obvious to the most common observer, I mean if only commercially considered; its climate would afford us in high perfection the articles of the Dutch Spice Islands, and in the course of time prove a valuable set off for the loss of the inestimable Java; it may even possess indigenous products unknown and peculiar to itself: in fine, it may lead to sources of trade and traffic with China, India, and the immense Eastern Archipelago, of incalculable value.

There is doubtless something noble in the idea of the British flag waving over the Poles; but it would be equally

worthy this great and philanthropic nation, to promote the cause of civilization and Christian knowledge amongst the countless Aborigines, scattered throughout the innumerable islands with which the more Northern Pacific Ocean abounds.

Page 199.—*Coal country at Concepcion.*

I am indebted for the following information to an intelligent friend who had surveyed the ground.

“Concepcion, is a province more highly favoured by nature, as a maritime province, than any perhaps in the world; I have already mentioned that the line of the coast is occupied by a range of woody hills, encroaching about twenty leagues on the plains which separate them from the Cordillera; the country increases in fertility and beauty every step from the north frontier towards the south, because it is better watered both by rain and rivers. The capital is situated on a plain on the right bank of the Biobio, and close to the river. To the eastward the ground is of considerable height, forming the boundary of the plain; this height is called the Caracol, from a winding path up it, and is a favourite walk of the natives. To the westward and northward lower elevations terminate the plain, which is of small extent. All these hills are composed of what the natives call cascajo, which is the débris of decomposed granite, and is very useful as a material for making roads.

About two miles to the northward flows the Andaleon, with a deep but slow stream. The Biobio is here from half to three quarters of a league wide, but often a continued drought so shallow that instances have occurred of its being forded: indeed Benavides did so with his Guerrilleros. It is not affected by the tide; the mouth is nearly blocked up by high rocks, and it enters the sea on a line running nearly due west by compass.

“The port of Talcahuano is situated in the bay of Concepcion, and eight miles distant from the town; the road to it (good during the dry season, but in winter often impassable for carriages) is, with the exception of two inconsiderable hills, a plain, and the material is at hand for keeping it in order. The bay of Concepcion is open to the north wind, which in winter sometimes blows with great violence; but the harbour is completely land locked by the beautifully wooded island of Quiriquina, situated at its entrance, and is esteemed by naval men one of the best and safest harbours in the world. On one side of the port is a projecting ground, about 1000 yards in length, 40 in breadth, and about 200 feet high, which contains abundance of coal and every convenience for the establishment of smelting furnaces; it is called the Morro, and is that part which was purchased by the Anglo-Chilian Association. Its situation is all that can be desired for the purpose, and it possesses every convenience for landing and shipping stores; and the furnaces might have been placed within twenty yards* of the coal mines. There are also many coal veins on the opposite side of the bay of Concepcion, at old Penco,

and although the coal is not of a quality equal to the English, still we found it quite adequate to all the purposes of smelting, and it has as yet never been worked below the surface."

Page 220.—*Coquimbo contains about six thousand inhabitants.*

Nature has refused to the greater part of this province the blessings of agriculture, but in compensation, she has bestowed upon it mountains highly metalliferous; Copiapo possesses rich veins of gold, silver, and copper, nor are many of the other metals wanting. Their situation, often in the higher regions of lofty and desolate mountains; the expense of transport, the price of provisions, and the scantiness of the mining population, render it difficult to derive that immediate advantage from the working them, which their intrinsic value seems at first sight to offer. The mode of working the mines in use among the natives militates also very much against any attempts of European miners to ameliorate the system. They never begin by sinking a perpendicular shaft, but follow the vein through all its mazes, so that in a short time it becomes a perfect labyrinth, and when water makes its appearance, they have no other mode of draining than carrying the water out in sheep-skin bags on their shoulders. Of course it soon gains the ascendancy, and the mine is abandoned, perhaps in a state of riches. Had it been properly formed, a common pump would, in most cases, have sufficed, because generally the water which inun-

dates the Chilian mines is not the sudden rush of a spring, but the filtration from the snows of the Cordillera gaining a passage through porous rocks; very common means therefore would keep this under and enable the people to go on with the work. The time and expense of sinking a perpendicular shaft to an old mine, abandoned when it is not perfectly certain that it was left whilst producing rich ore, will deter most people from the undertaking. However, notwithstanding all the difficulties and obstacles to mining in Copiapo, great fortunes have been made, particularly by silver; but it is a lottery; patience and perseverance are necessary; privations and hardships are to be borne, and perhaps the last blow of the hammer discovers to the persevering miner the reward of all his sufferings.

The only agriculture to be seen in this district is on the banks of the river, and as it produces but a scanty supply for the population, provisions are therefore brought from other and remote parts; and where transport is difficult, of course the means of existence are expensive.

The port, if such it may be called, is at the mouth of the river, eighteen leagues distant from the town; and I believe the road is passable for a wheel-carriage. It is a very unsafe roadster, and but for the rare occurrence of gales of wind, it would be impracticable for ships to lie there. The whole coast of the Pacific is subject to a high surf.

• The climate of Copiapo is remarkably fine and very salubrious, nor do the inhabitants suffer any extreme

heats, although situated near the limits of the tropic. Earthquakes are very frequent and often very severe; the town has been twice utterly destroyed, and when I visited it, about two-thirds were still lying in ruins.

Fifty leagues intervene between Copiapo and Huasco, thirty of them over a sandy desert, producing nothing but some varieties of the cactus. There are no animals in this desert except guanacos, and they are in great numbers. Huasco produces abundance of copper of excellent quality and a considerable quantity of silver. The obstacles to mining here are not so great as in Copiapo, because the remedies are more accessible and provisions more at hand. The principal town is Ballenos, on the river* of Huasco; its situation is not very propitious, being very much confined by the high banks of the ravine through which the river flows, and which only leaves sufficient space for the town. The salubrity of the air is a good deal affected by the position. Ten leagues further down the river and four from the sea, we find the small mining town of Freyrina; the climate here is infinitely superior to that of Ballenos, and indeed inferior to no part of Chili. The port is very objectionable, but here the Pacific really merits its name. Sixty leagues southward of Huasco is Coquimbo: the town of Serena is situated on an uneven piece of ground, about one

* A well constructed suspension bridge, ninety feet in breadth, was thrown over this river in three weeks, by Captain Charters, R. A., a commissioner for the interests of the Anglo-Chilian Company, to the no small surprise and convenience of the Coquimbanos.

hundred feet above a morass which surrounds it on three sides, one mile from the point where the river enters the sea, and eight from the port; it is the chief town of the province, and contains about six thousand inhabitants. The port is one of the best on the whole coast of the Pacific; it may rank after Acapulco and Talcuhuano. The watering place is inconvenient, it being at some distance from the port, and the access sometimes difficult on account of the surf. This district contains excellent copper mines, and produces a considerable quantity of silver. Many gold mines of great reputation also exist, but they have not been worked lately, on account of their being in water. The newly discovered mineral d'Arqueros, which once promised so fairly, and is still very valuable, is situated about fourteen leagues to the northward and eastward of Serena, and 4,520 feet above the level of the sea: the access to it is by a very rugged path, the mountain is composed of porphoretic green stone. The Anglo-Chilian Association possessed a mine there which at one time gave the fairest hopes, but they soon vanished, as did those of many others: a few, however, still maintain their character, one, in particular, has produced not less than 100,000 dollars in two years, and it is not yet more than ten fathoms deep. In the three districts mentioned, firewood is very scarce; two kinds only are used for smelting, olivillo and lena carbon; the latter is a sort of ebony; they are low bushes. The wood of a species of cactus is used in refining the copper. The silver ores are reduced exclusively by amalgamation.

The climate of Coquimbo is very fine; the heat in summer never exceeds 72° of Fahrenheit, nor does it fall below 60° in winter. The coast is subject to heavy fogs, while the country a little inland enjoys clear sunshine: earthquakes are very frequent, but very seldom violent; the town has never been thrown down.

The district of Illapel, the last of the four composing the province, produces copper and gold; the former is not so much esteemed as that of Huasco, owing to its being smelted and refined in a more slovenly manner. The greater part of this district is composed of ferruginous quartz. The Mina de las Vacas has produced large quantities of the precious metals, and it continues valuable. The mining population is more numerous here than in other parts of the province. Wood and water more abundant, and the country more productive. The same quartz rock extends for a considerable distance into the province of Santiago, and the gold mines of Petorca have been celebrated. I will conclude this general sketch of the mining province of Coquimbo, by a few remarks on the government and people.

An assembly composed of deputies, elected by the people of the districts, towns, and villages, forms the legislature for the province. The executive is carried on by a governor, appointed by the central government of Santiago, a Juez de letras, who decides upon all cases, criminalas well as civil; there is also a Juez de comercio, who hears cases relative to commerce. The government of Coquimbo appoints governors to the districts of Copiapo, Huasco, and Illapel. There is a municipal

court called the *cabildo*; a custom-house, and an *alcabulero*; the *alcavala* is a tax of six per cent. laid upon all sales and transfers of property.

The laws are feebly administered, and punishments in criminal cases very partially applied. Families of influence are allowed too much to interfere with the decisions of the courts.

The Chilians are a very docile and easily governed people, particularly the inhabitants of this province, and any one may travel quite alone without the least risk, all over it.

THE END.



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