

CHAPTER II.

Departure from Rio de Janeiro—Fort of Santa Cruz—Falkland Islands
—Passage round Cape Horn—Valdivia—Wreck of H.M.S. Chal-
lenger—Concepcion—Talcahuano—Old Concepcion—Aconcagua—
Valparaiso.

ON the 28th of August we made sail, our own boats and those of the foreign ships assisting to tow us out. The entrance to the harbour of Rio is less than a mile broad, and has a bar across, generally causing a swell, which, unless the breeze is strong and steady, renders the towing a necessary precaution. This obstacle passed, sufficient breeze is generally found to take a ship clear of the land, and, if there is not, she can anchor and be ready for the first wind that springs up. The foreign boats cast off before we reached the fort of Santa Cruz. This fort mounts thirty guns to seaward and thirty-three towards the city, and if well served they would seriously annoy an enemy, but with a fresh sea-breeze would hardly repulse an English squadron of seven or eight line-of-battle ships. In the afternoon it fell calm, and we had an opportunity of judging of the Raza lighthouse. The light is but a poor one, revolving, or rather irregularly intermittent, and seen perhaps six or seven miles off, certainly not more.

On the 30th a fresh breeze sprang up from south-east and east-south-east, continuing three days, when it hauled round to the north-north-east, varying in strength, but carrying us to the southward. On the 3rd of September our course was interrupted by a few hours of light southerly breezes, the weather becoming cold and the atmosphere so clouded, that for several days the sun was not seen. Throughout the voyage we rounded-to at the end of every watch, and tried for soundings with as much line as was practicable, sometimes seventy or eighty fathoms, rarely one hundred. Moderate breezes, alternating with fresh gales, brought us on the 19th at daylight off Berkeley Sound, Falkland Islands. A boat came off to inform us that the Governor had changed his abode from Port Louis, or Anson, as it is now termed in honour of the navigator, who it is said first pointed out the Falkland Islands as a desirable acquisition. A desirable acquisition indeed! Useful ports no doubt they are, but while yet unreclaimed land exists in any more genial climate, it will only be necessity that draws any one thither. The desolate aspect of the islands is proverbial, and we had a good opportunity of seeing it on entering Port William, a bay or sound next to Berkeley Sound. The wind, which had been right aft, was dead against us; working up we stood close to the shore. The water was perfectly smooth, although the breeze was very fresh. Every danger was pointed out by the kelp, which, as it were, lies moored off all the rocks and points. When we had reached the head of Fort William, the entrance to Stanley Harbour opened out, through which we ran, and anchored in a basin, a perfectly land-locked

sheet of water. In this admirable harbour we had some squalls, the strength and fury of which could hardly be surpassed. Whether it is the gloom of the climate that makes people think more of the wind than in other places, it is difficult to determine; but the islands certainly have not undeservedly the reputation of a breezy place. For a week it blew incessantly, alternating with hail and snow showers. True it was the vernal equinox, for which some allowance ought to be made, but several of us had been here in December and January—midsummer—when, except that it did not snow and hail, it blew as hard, and the weather seemed nearly as cold. The breezes, however, strong as they were, affected us no more than if we had been in the basin of Portsmouth dockyard, to which this harbour of the Falkland Isles may with justice be compared. It would be impossible to find a better harbour of refuge, situated at the easternmost extreme of the group; the dangers are mostly apparent, the prevalent winds off the land, smooth water to work up to the anchorage, and the necessaries of life, or at least some of them, may be procured.

The settlement had been moved from Port Louis, or Anson, more than a year ago, and consisted of the Governor, Lieutenant R. C. Moody, of the Engineers, a stipendiary magistrate, a surgeon, a clerk in charge of stores, and a detachment of twenty-five men of the Sappers and Miners. It was certainly advancing, but presented, like all new settlements, a miserable aspect. The establishment at Port Louis will not be given up; the land is far better in that neighbourhood; and when a road has been formed, it will conduce greatly to the

advantage of the islands, having two ports instead of one.

The glowing terms in which some writers speak of this group are difficult to be accounted for. Captain Mowett says, "it has a good soil, clear of rocks, susceptible of easy tillage and high cultivation." All these advantages, however, can only be proved upon trial. That it has fed vast herds of wild cattle is well known; but in this part of the world good pasturage will not alone enable man to live comfortably. Hides and beef are not so profitably exchanged at such a distance. That the islands are invaluable to the seaman in distress is evident; that they will ever be anything more is doubtful. It is not perhaps generally known, that they have already proved a refuge from utter destruction to the crew of a British man-of-war. In 1770 the *Swift* was wrecked in Port Desire, on the coast of Patagonia; under circumstances of peculiar hardship, and at the approach of winter, her commander, Captain William White, succeeded in reaching Port Egmont, upwards of 300 miles distant. There he fell in with the *Favourite*, which proceeded to the assistance of the rest of the crew. The *Favourite* had been engaged in forming the settlement at Port Egmont, which was so summarily dismissed by the Spaniards, who however disavowed the act of their officer. Although the English Government, from the coming distress of the American war, never re-established the settlement, yet the question, apart from politics and the bickerings of rival nations, has still an interest as the subject of one of Johnson's pamphlets.

Stanley, at the time of our visit, numbered twenty-four

houses and about 120 persons, who were employed in building houses, wharfs, and stores. All the military force the Governor had with him were Sappers and Miners, the rest of the inhabitants being only under his civil jurisdiction. The islands occupy a space about half the size of Ireland, 120 miles by 60. Their aspect is most desolate and wretched; an undulating land covered with peaty soil and wiry grass, and intersected by ranges of hills, boggy streams, and rivulets. The geological structure is curious; in the neighbourhood of Stanley there is a cliff so much resembling a wall, that until it has been visited it is thought artificial; the strata of white granular quartz are frequently arched with perfect symmetry; seats of an amphitheatre, streams of stones, are common in East Falkland. The lower country consists of clay, slate, and sandstone, covered over with a peaty soil, which serves for fuel; the tussac grass is common.

Birds are abundant, though since Bougainville's time (1766) much diminished. Our sportsmen shot snipe, plovers, hawks, owls, and a kind of buzzard, called the Cara Cara. The penguin, that combination of fish and bird, might, as Darwin says, when crawling through the tussac grass, be readily mistaken for a quadruped. Two kinds of geese frequent the Falklands. The upland goose (*Anas leucoptera*) was brought on board by scores, and eaten and even relished by many, while others declared that, after tasting it once, only the fear of starvation would make them try it again. It is, however, said that if skinned and kept for some time it may be deprived of the strong fishy flavour; decomposition might change it,

but nothing else. The rock goose (*Anas Antarctica*) lives exclusively on the sea-beach, and tastes even worse than the former; the most hardy were deterred from eating it; in the autumn however, when feeding on berries, both kinds lose in a measure this disagreeable quality. The logger-headed duck, which Darwin so appropriately styles 'the steamer,' is another inhabitant, and weighs at times twenty pounds. It has received the name from its manner of propelling itself by paddling and splashing in the water; its wings are too small and weak to allow of flight, but by their aid, partly swimming and partly by flapping the surface of the water, it moves very quickly, making a very curious noise. The steamer is able to dive for a short distance only; it feeds on shell-fish from the kelp and tidal rocks. At Sparrow Cove, at the head of Port William, we saw some horses which sprang from those brought by Bougainville; they are of a small and weak growth, a contrast to the bullocks, which are generally fine animals. The horses have never left the eastern part of the island, although there is no natural boundary to prevent them.

In making the Falkland Islands a strong colony for the benefit of vessels in distress, it would be desirable to add a couple of cutters of from forty to fifty tons, or a small steamer of one hundred tons, to visit the distant parts of the group. A vessel might now be wrecked to the westward, and her crew, unable to reach Stanley, would reap no more benefit from the establishment than did the unfortunate Wager's crew from the proximity of the Anna Pink. Since our visit a triangular beacon has been erected on Cape Pembroke, the easternmost part

of the islands ; it is painted white and red, and can be seen about five miles off at sea. Water of good taste was procured from two or three streams near the town ; we used the engine,—without one the operation would not have been so easy.

The 27th of September was a beautiful day. What a difference ! The desolate shores of Stanley Harbour and its embryo town looked cheerful when under the influence of a cloudless sky and a gentle breeze. It is not to be wondered that the English in their changeable climate are talking so much about the weather. The pleasure of a fine day after the long continuance of fog, sleet, wind, and rain, is not appreciated by those who live under a brighter sun.

On the 30th of September we weighed and made sail out of Stanley Harbour ; the wind was light, and as we cleared the narrow entrance, only three hundred yards wide, it hauled round to north-east, compelling us to beat out ; a fog also got up. About noon we cleared the land. The Pandora was not in sight ; we regained her however by means of a rocket, but on the 3rd of October we lost sight of her a second time, nor did we meet again until we arrived at Valparaiso, where she preceded us upwards of a fortnight.

On the 15th of October we were under storm-sails and close-reefed maintopsail. In the middle watch it was bitterly cold, unusually so,—ropes, deck, and bulwarks were coated with ice ; this was accounted for at daylight by an iceberg being not far off. It was a fine object, about two miles in length and 150 or 200 feet high.

Heavy gales, squalls, cold drizzling rain, snow, hail, the main-deck stove in, the gangway boarding washed away, a low temperature, and a man falling overboard, was the summary of a month's battering off the Horn. On the 15th of October we were within thirty miles of Diego Ramirez, that group so singularly placed, that perhaps another fifty years may see it the site of a lighthouse. We tacked at sunset to avoid it. Towards midnight the wind hauled round again to the west-south-west, blowing strong with storms of hail and snow, but it moderated again on the 17th. This was probably the turning point or crisis of the voyage; had we stood to northward on the 15th of October, instead of tacking to avoid the Diego Ramirez, we should, in all probability, have made the same passage that the Pandora did, but against that advantage is to be placed the risk of getting on that group; the result with us was a detention for nearly a fortnight in this miserably inclement, blustering climate. The passage round Cape Horn, although stripped of its terrors by experience, the aid of chronometers, and the superior manner in which ships of the present day are found, is still an anxious and fatiguing voyage. The quick succession and violence of the gales make it remarkable. There does not appear to be the least objection to nearing the coast, particularly since the admirable surveys of Captains King and Fitzroy, although east of Cape Horn fifty or sixty miles is the closest approach that, on account of the diversity of the currents, ought to be made.

On the 3rd of November a westerly breeze sprang up, varying to the north-west, which, though rather adverse,

carried us out of the inclement regions of the south. In 44° south and 76° west we passed a whaler, trying out, as the phrase is, boiling her blubber down; as the wind was blowing fresh, and having never seen the operation at sea before, we did not at first know what to make of it. We passed two others on the following day engaged in the same manner. The Americans engross nearly all the whaling trade of the Pacific Ocean; for one English ship we met with ten American.

On the 9th of November we made the land, fifty miles south of Valdivia, Chile. The weather was now beautiful, and we enjoyed it the more from our tedious passage. Valdivia will at some future day be an important place; it is the only opening to a magnificent tract of country called Los Llanos, or the plains lying between Chiloe or the Gulf of Ancud and Bonifacio Head, extending from the steep hills which line the coast to the Andes. The principal rivers, forming what Captain Fitzroy calls the deceiving port of Valdivia, are the Calla Calla, on which the town stands, and the Cruces. The harbour, though in appearance extensive, is, from the accumulation of mud and sand, very limited in the accommodation it affords to vessels of any size. The adjacent country reminds one of the neighbourhood of Plymouth. We were near enough to observe fine herds of cattle; but the pathless forest, bounded on one side by the Andes, and on the other by the ocean, seemed barely traversed by man. Valdivia, perpetuating the name of the daring and avaricious Pedro de Valdivia, is, although called a city and the capital of a province, merely a village, embosomed in orchards. It was founded in 1551, a few

years before Valdivia fell in battle with the unconquerable Araucanians, whose deeds of valour in defence of their liberty are so well detailed by Ercilla in his 'Araucana.' There is something grand in the energy of the Spaniards of those days, brutal and misdirected as it was. Religion was not wanting to lend sanctity to the deeds of oppression and lawlessness; and it would seem as if their conduct was shown as an example of the extent to which human nature can deceive itself. The lust of gold and advancement was the real impulse of their heroic endurance, of their barbarous disregard of everything human; but in their minds it was doubtless glossed over by the desire of making converts, or the principle of persecution, which, calling itself zeal, sought to overthrow all that refused to entertain their belief or endure their yoke. The Araucanians still form the principal part of the population, and an amalgamation between them and the Creoles has been and is still going on. This is evident from the aspect of the present inhabitants; the lank hair and dark angular features are common among the Chilenos.

We approached within a mile and a half of the entrance of the harbour, and at one P.M. wore and stood out. The day was fine—the sun shining brightly, and the breeze being moderate; the signs of cultivation, the cleared land, cottages seen among the trees, and the grazing cattle, diffused cheerfulness and animation, and the pleasure we derived from it was no doubt greatly enhanced by our long absence from such scenes. The breeze from south-west and south-west-by-west fell light as we drew in shore; on standing out it freshened up gradually,

until we were going eleven knots—an unusual speed for the Herald. We stood to the westward to avoid Mocha, an island in $38^{\circ} 19'$ south, $73^{\circ} 46'$ west. Dangers extend from the south-west of this island, but the approach to it is indicated by soundings. It used to be inhabited by the Araucanians, but they were driven away by the Spaniards, for fear they should give assistance to foreigners. There the pirate Benavides captured an American and an English vessel in his extraordinary attempt to achieve power.

During the night we passed Mosquita Point, the site of the wreck of H.M.S. Challenger, on the 19th of May, 1835,—an unfortunate event, but so far creditable to the captain and ship's company, as proving their good qualities in patiently and perseveringly meeting the difficulties of their position. One cannot but compare the wreck of the Challenger with that of the Wager, in May, 1740. The advantages are certainly all on the side of the modern disaster, more particularly in the fact that the Wager was lost ten degrees further south, in a far more inclement climate, adding immeasurably to their distress. Still enough remains to show the commander's conduct as selfish and inhuman in no slight degree—discreditable to him as a man and as an officer, and that disorder and absence of discipline reigned among the crew so much as very greatly to increase their sufferings, and render all chance of relief hopeless. In the case of the Challenger the reverse took place; the captain was the first to show an example of self-denial and self-command, and hardly an instance of misconduct had to be proceeded against among the crew. These circumstances

should make us feel thankful that we live in better times, —that while a milder yet firmer discipline has extended itself throughout the naval service, the sentiment of responsibility renders it unlikely that human nature will be so severely tried, or, being so tried, will give way to the excesses that characterized the wreck of the *Wager*.

On November the 10th we stood in again for Concepcion Bay, just as we made the Paps of Biobio and the heights of Tumbez. In the afternoon light winds from south-south-west carried us to the northward, passing Port St. Vincent, an open bay, but affording better shelter from the northers, which in May, June, July, August, and September, render most of the open bays on the west coast more or less unsafe or disagreeable anchorages. During the month of June some of us had seen two or three American whalers lying here in preference to Talcahuano. During the night we hove-to off the bay, and at daylight ran in through the eastern passage between Quiriquina and the main. With Captain Fitzroy's chart, there is no danger in using the western passage, which, although narrower, is nearer Talcahuano. The breeze was light from the northward; with little more than steerage way we only reached the anchorage about noon.

The scenery in Concepcion Bay is very pleasing; the country is studded with orchards and pasture-land, with flocks and herds grazing in considerable quantities, with various farm-houses, and sheds for the poorer inhabitants. It is diversified with hill and dale, well wooded, and affords an agreeable contrast to Valparaiso. In the course of a week or ten days a voyager may on this coast see the extremes, from the most luxuriant bounty, fer-

tilizing streams, and refreshing showers, to the aridity of the parched desert, where no green exists, and then change suddenly to the dense tropical forest. On the coast of Chile, however, the change is progressive; at Valdivia the luxuriance of nature is almost tropical: there is a difference at Concepcion; the foliage is neither so rich nor so superabundant, still it is a well wooded, well watered country. But at Valparaiso the difference is great; the hills are almost bare, or clad with stunted shrubs and half-grown underwood; it is merely in the ravines and the valleys that what may be called verdure exists. At Coquimbo even this is diminished; the cactus only flourishes, and a poor wiry grass is perhaps found in the more sheltered spots. At Cobija there is the desert itself,—hill, valley, and plain, either covered with sand, or the barren naked rock scorching in the sun. The contrast between Valparaiso and Concepcion made us perhaps look at the latter with more favourable eyes than we otherwise should have done: it is however a fertile place, renowned on the station for its fresh beef, vegetables, and fruit, besides corn and coal, which are both, particularly the former, exported in considerable quantities to Mexico, Peru, and the Australian colonies.

On the 20th of September, 1835, the towns and villages round about Concepcion were overthrown by an earthquake; the loss of life was comparatively small, but the destruction of the habitations was complete. The earthquake, however terrible such visitations must ever be, does not appear to have been attended with such fearful consequences as that of Lisbon in 1755. The construction of the buildings being less solid, loss

of life is not so likely to occur, and the houses are more easily replaced. The adobes, or earth-bricks dried in the sun, are remade on the spot, and the timber is usually serviceable again. But an earthquake is not to be lightly thought of: all that man can conceive of stability trembles beneath him, and ruin and misery is the result.

Talcahuano appears to have risen from its ruins with more of order and regularity; the streets are broad and straight, and not unclean, but it is nothing beyond the merest sea-port, supported principally by a class of indifferent reputation, the crews of whaling-ships, who often render it an undesirable rendezvous. The road from Talcahuano to Concepcion leads through a valley, and may be said to be almost of nature's forming, being entirely dependent on the state of the soil; the dust in summer is perhaps worse than the mud in winter. At the time of our visit it was probably in its best condition, the rainy season being just over, and the sun not having had sufficient power to dry up all the moisture. The numerous brooks or watercourses had been rudely bridged over, indicating some traffic, and being particularly agreeable to pedestrians. The road was lined with huge posts, rendering two facts apparent,—that wood was abundant, and labour scarce. They were of the rudest construction, about ten inches square, with holes in them through which smaller pieces were thrust; altogether it was the most wasteful consumption of timber we had ever witnessed.

The soil is fertile in the extreme. Wheat, barley, Indian corn, and beans were seen in considerable quantities; grass seemed abundant and of good quality,

agreeing with what has been stated of the fertility and productiveness of the province. The city contains 5000 or 6000 inhabitants, and has a sad aspect. An English country town is generally considered a type of dulness and inanimate life; but the dullest is cheerfulness and animation itself compared to Concepcion. In the distance it reminds one of Ludlow; but on a nearer approach, it makes one think more of an immense brickfield. The plain or valley in which the city is placed is little higher than the level of the river; the soil is loose and alluvial, and the streets are generally unpaved. In Spanish cities the streets are usually at right angles; the houses, even those of the better class, are never more than one story high, and have generally a ground-floor only. This mode of building, although a wise precaution in countries afflicted with earthquakes, does not add to the appearance of the towns. The private houses were rebuilding, but in a very unpretending style; even the best aspire no higher than to solid plainness, while the greater part were little better than mud hovels. The ruins of the cathedral had been cleared away, and a few slight buildings were all that supplied its place. There being no bustle, no animation in the thoroughfares, Concepcion had more the aspect of an overgrown village than of the chief town of a province. Even the river, with its broad and naked stream, rather added to, than relieved, the melancholy quiet. Some delightfully luxuriant spots, cultivated as gardens, testified to the fertility of the soil in the very centre of the town. All kinds of vegetables, and raspberries, strawberries, gooseberries, and currants, were abundant; vineyards and orchards were also in the neighbourhood.

In fine, everything tended to show the mildness of the climate and the bountiful productions of the country. But the earthquakes diminish all these advantages, destroying the oldest associations, and making all present enjoyments insecure.

Desolate as Concepcion was, there was a coffee-house and a billiard-room just established under the favourite Spanish sign of the Bola de Oro. Wood appears much wanted in the neighbourhood of the city. The hills have a denuded, devastated aspect, which, notwithstanding the fertility, much detracts from the picturesqueness of the scenery. The coal abounding in this region is similar to the English cannel coal, but has not yet been worked to any extent. It is found within three or four feet of the surface, and is said to burn too quickly to be useful for the forge. It is also liable to spontaneous combustion. The mining districts of Copiapo, Guasco, and Coquimbo have taken advantage of the abundance of fuel by forming smelting establishments here, to which they send the ores fresh from the mines.

Old Concepcion, the ruins of which still exist at Penco, in the south-east corner of the bay, was overthrown in 1751. It was rather swallowed up by the sea than by the land; and it has been observed that Callao and Concepcion have both suffered more than Valparaiso and Coquimbo; the deeper bays of the former offering resistance to the sea, and so impelling the waves with force on the shores. The present site of Concepcion was not chosen until 1763. The town was seriously affected by the earthquakes of 1822 and 1823, which, however, did more damage to Valparaiso and Santiago.

In 1835, as already mentioned, it was again almost destroyed. Among the exports of Concepcion is the Choros, a kind of mussel, peculiar to the bay, and much valued by the *bons vivants* of Chile. The distance between Concepcion and Valparaiso is 250 miles, and as the southerly wind is usually constant the passage is commonly performed in a day and a half; but light breezes and calms often interfere and baffle ships, particularly on approaching Valparaiso.

On the 12th of November we sailed for Valparaiso. A lighthouse upon Point Curaomilla would be very useful in approaching that port, more so than on Point Valparaiso. The light should be revolving, to distinguish it from the fires frequently seen inland. Point Curaomilla is a bluff headland, with two hummocks at the extreme, the land heightening gradually, with white streaks among the red cliffs. As we neared the coast the scantiness of the vegetation became more apparent; trees were only seen in the valleys, and the sides of the hills were worn into numberless little gullies by the winter torrents, accounting for the white streaks we had previously observed. On opening Valparaiso Bay, the distant Andes broke upon our view,—the mountain of Quillota, and the towering core of the volcano of Aconcagua*. From the neighbouring hills they appear grander; their great distance is better perceived and comprehended by the eye; but a quarter of an hour before sunrise or sunset is perhaps the most advantageous

* By trigonometrical measurement, taking a base between Valparaiso and Pichidangue, Captain Kellett and Mr. Wood made the height of Aconcagua above the sea-level 23,004 feet, Captain Fitzroy 22,980.

time for viewing them,—the rugged outlines are then depicted against the sky, and the various shades and delicate tints are more clearly distinguished

Valparaiso has much changed during the last fifteen years. The tower of a new church, *el Matriz*, the cupola of the Custom-house, and the steeples of the church of *La Merced*, contribute to give a more striking appearance to the place than it had heretofore. Its increase has been most remarkable. The *Almendral* was a suburb, rarely visited, but is at present the principal and the busiest part of the town; a new street, taken from the beach, the houses of which almost overhang the sea, now runs parallel to the old and only one of 1830, and is full of foreigners, taverns, and billiard-rooms. The old thoroughfare seems to have been left to its original inhabitants, the *Calle del Plancharia* being as quiet as ever, and as old-fashioned too in appearance. “It was about one o’clock, the hour of the siesta,” says one of the officers, “when I took a walk in that part. Every shop was closed, and not one busy face was to be seen; the whole town seemed, as in fact it was, asleep. The small houses creeping up into the sheltered sides of the *Quebraba* were in the same dreamy repose. Wandering up to the church of *el Matriz*, I found two other places of worship of much older date,—one belonging to the convent of *San Domingo*, the other to that of *San Francisco*. The precincts or cloisters of the latter presented the most pleasing spot I had seen in Valparaiso: it was humble indeed, but neat and clean. A covered walk extended all around, forming a shelter, and reminding me, in its quiet seclusion, of the cloisters of *Magdalen College, Oxford*. In the middle was a

cluster of trees, orange, lemon, and pomegranate. It seemed a refuge from the dirt and dust of the town, unexpected and unlooked for in the inconvenient and poor suburb."

The markets of Valparaiso are well supplied with fruit, vegetables, meat, poultry, milk, and eggs, and one is surprised that such is the case, when seeing the barren aspect of the hills, and observing, even when riding out upon the hills and plains beyond the town, the little cultivation that exists. But it is in the valleys and sheltered spots that fertility and cultivation are to be found; in a country such as Chile, shelter from the wind, and security from the rushing torrents, caused by the rains of winter, are absolutely necessary.

Captain Kellett and Mr. Wood went to Santiago, the capital of Chile*, while Mr. Edmonstone made excursions to Quillota and the neighbourhood. The accommodation afforded to the rich has been increased during late years, but the hovels of the poor are still the same as formerly,

* Captain Kellett took with him a barometer, an admirable instrument, which, on being compared with the standard one at the Cape of Good Hope, was not found to differ perceptibly from it, and we compared ours on board at corresponding times: the heights of the city and of the intermediate stations above the mean-tide level are as follows, and may be placed in juxtaposition with those of Captain King.

OBSERVATIONS OF CAPTAIN KELLETT.	OBSERVATIONS OF CAPTAIN KING.
Santiago 1866 feet.	Santiago 1821 feet.
Curicavi 667 ,,	Curicavi 633 ,,
Cuesta Prado 2585 ,,	Cuesta Prado . . 2543 ,, (Miers).
Cuesta Zapata 2008 ,,	Cuesta Zapata . . 1977 ,,
Casa Blanca 846 ,,	Casa Blanca 803 ,,
Valparaiso—mean-tide level.	Valparaiso—mean-tide level.

being roughly constructed of wood, plastered over with a coating of mud, the bare ground forming the floor, windows being unglazed, and shutters excluding the daylight, but not the wind and rain. The hills near the sea are partially clad with scanty brushwood and still scantier herbage: after passing them, the eye perceives an extensive open country. The Espino (*Acacia Cavenia*, Hook. et Arn.) abounds on these plains, and would, if attended with care, be of vast service in reclaiming the waste, by attracting moisture and affording a supply of fuel. It has been of the greatest use to the miners, and also for household purposes. Notwithstanding its being cut in the most injudicious manner, it still grows again; but of late this unwise system has been pursued to such an extent, that it has in many places destroyed the growth altogether. The utility and importance of such a wood as the Espino, in a country where much fuel is required, where there is hardly any other moisture than that produced by artificial irrigation, and where land carriage must continue for many years both expensive and laborious, and the widespread distress that must accrue from the injudicious neglect of the bounties of nature, will be apparent to the most casual observer. There is no doubt that the aridity of the plain has been perpetuated and increased by neglecting common precautions with regard to this shrub. The Espino is brought into Valparaiso in a slightly charred condition; it is very hard, gives much heat, and its ashes are sufficiently alkaline for the manufacture of soap. The stoves and warming-pans over which the Chilian ladies are very fond of putting their feet during the cold weather, are supplied by the small

bundles of charred Espino so often seen for sale in Valparaiso.

Numerous trains of mules were proceeding to and from the capital, reminding one of the pack-horses of England, before canals were begun or railways thought of. Indeed, in many places any other mode of transit, if not altogether impracticable, would be attended with great difficulty and expense. The coaches at Valparaiso often drive four horses, harnessed in a peculiar manner—three abreast and one in front, an awkward contrivance, with perhaps one advantage, that of putting the strength of three horses more immediately to the carriage, and having one in front as a leader to encourage the others. The coaches are clumsy, ill-looking vehicles; they travel fast, and, as might be expected, both from their construction and the roads they have to pass over, jolt tremendously.