Jedge; and in the mean time erected, at the expense of the proprietors of the mines, a supreme tribunal of the mines, on the plan of a similar tribunal in Mexico. On my arrival in Peru, however, I found that the members who composed this supreme court were entirely destitute of mineralogical knowledge: and the Peruvian board of mines has not yet expended a single penny for promoting the working of any of the numerous mines under their jurisdiction. Of this the proprietors loudly complain: but their complaints are nowhere attended to. Government not only leaves them to themselves without any support, but likewise depresses them by vexatious processes and chicanery, and by executions on the slightest refusal; by which many have been driven from their homes. The sub-delegates, or judges in the mining districts, are more especially the greatest villains, who enrich themselves by their unjust acts of tyranny, and continually accuse the subjects of sedition and rebellion; while the viceroy, who resides in the capital, and is a stranger to the extensive region committed to his care, gives himself little trouble about the burthens and oppressions under which the people groan.

I staid only three weeks at Lima, during which time I had several private interviews with the viceroy; who, at the desire of the governor of Guanca-velica, ordered me to proceed to that place, as director of the royal quick-silver works, for the purpose of introducing the Idrian, instead of the ill-contrived and wasteful Almadena fur-

naces. Having received my commission and written instructions, I accordingly left the capital, and arrived at Guancavelica on the 6th of May 1790, accompanied by my family and five German miners. The sudden transition from the hot climate of Lima to the cold mountainous regions, threw my wife, servants, and miners, into an intermittent fever, from which my wife did not recover till seven months after, by a change of place and air.

I soon discovered that, in procuring me this commission, M. de Tagle, the governor (an old Creole, who by pretended patriotic projects had amassed a fortune of a million of piastres, had no other end in view but to derive a profit from furnishing the necessary building materials, for which he received more than four times

their value. I accordingly protested against these nefarious proceedings, and began to make my own bricks, which cost no more than half a piastre per hundred, though the governor's work. men had charged 25 piastres for the same quantity. The governor, however, still counteracted my plans for saving the king's money, by endeavouring to force useless labourers and overseers upon me. These attempts I resolutely resisted; and on my threatening to return immediately to Lima, he at length suffered me to go on in my own way, and the erecting of the furnaces proceeded with unremitting diligence: but before I could finish them, the governor, having persuaded the viceroy that the Idrian furnaces, though they would cost twice as much as the old ones, were wholly

unfit for the intended purpose, procured an order to suspend the work. I easily proved the untruth of these malicious representations, and the governor was in consequence recalled to Lima, to give an account of his conduct; as it appeared that during the three years of his administration only from 13 to 14 thousand cwt. of quicksilver had been produced, at an expense of 166 piastres per cwt.; though his predecessor had furnished annually 2000 cwts., at from 99 to 100 piastres per cwt. I could not, however, get the suspension taken off.

I then proposed to the viceroy plans for erecting machinery for pounding and washing the ore, which yield only per cent. of quicksilver; and proved that 16 of my Idrian furnaces would thus produce as much as the 75 old

ones. These plans were rejected by the viceroy, on account of the expense, which I estimated at 100,000 piastres, though the king annually loses above 200,000 by bad management, an unnecessary number of officers, and the excessive consumption of fuel, which is very scarce and dear.

An order was soon after sent to me to proceed to the province of Tarma, as superintendant of the celebrated mines of Pasco. This was a fortunate circumstance, a change of air being necessary for the re-establishment of my health, as vexation at the unjust treatment I had met with had thrown me into a violent fever, which during four weeks endangered my life.

The province of Guancavelica contains many extraordinary rich strata and veins of gold, silver, copper, and

lead ores, the greatest part of which, however, lie quite neglected, or the pits are not sunk to a sufficient depth. Some of the ores yield from 9 to 10 marks, and others 22 marks of silver in every 50 cwt.

On the 14th of January 1791, I left Guancavelica, and proceeded to Guando, eighteen miles.

Immediately after leaving Guando, we descended into a deep valley towards Iscuchaca; near which place we crossed the broad and rapid river Anguiacu, over a neat stone bridge.

From Guando to Acostambo, eighteen miles.

From Acostambo to Guaiucachi, eighteen miles.

From Guaiucachi to Guanjaia, six miles.

The valley becomes broader, and is

uncommonly pleasant and fertile. On each side of the river are many towns and villages inhabited by Spaniards, Indians, and Creoles. Guanjaia contains a parish church, a chapel, and well built houses, belonging to the rich land-holders of the district; and its markets are abundantly supplied.

From Guanjaia to Matuguasi, fifteen miles.

From Matuguasi to Gauxa, fifteen miles.

Gauxa is a small town with two churches and well built houses. Here the subdelegate resides, whose jurisdiction extends as far as Guaiucachi.

From Gauxa to Tarma, twenty-four miles.

Tarma is the capital of a government of the same name, is situated in a deep narrow valley, and inhabited chiefly by Creoles, Mestizos, and Indians. The adjoining district is very fertile, but the climate unhealthy; as the surrounding high mountains prevent a free circulation of air. Near this place are two quick-silver-mines, one of which was dug into an iron-spath vein of five ells, with solid and volatilised cinnabar; both, however, were yet only a few fathoms deep. Here likewise two veins with antimony and white silver-ore are worked; and in several pits they dug native salt-petre of an excellent quality.

From Tarma to Palcamayo, fifteen miles.

From Palcamayo to Reyes, eighteen miles.

From this place to Pasco, they have no other fuel but a kind of peat, with which the high mountains are covered a foot deep. From Reyes to Carhuamayo, fifteen miles.

About a mile from Reyes to the west of the mountains, begins a large lake fourteen miles in length.

From Carhuamayo to Pasco, fifteen miles.

Pasco is only a small town, where the subdelegate and the officers who superintend the refining-house, and collect the king's duties, and some wealthy proprietors of mines, reside. Most of the other proprietors live at their mines on the great silver-mountain Jaurico-cha, distant about six miles from Pasco.

Jauricocha contains a prodigious mass of ore (half a mile long, equally broad, but in depth only fifteen fathoms), of fine porous brown iron-stone, which is throughout interspersed with pure silver. This iron-stone itself contains, in-

deed, at most nine marks of silver in every fifty hundred weight, of which, however, the unskilful Indian metallurgist gains from the smelting-furnace only from four to seven marks. But a friable white metallic argil in the middle of the mass of ore, about one-quarter of an ell in thickness, yields from two hundred to one thousand marks of fine silver in every fifty hundred weight. Wherever the miner hits upon this immense vein, he finds ores containing more or less of silver. This has induced a number of needy and ignorant adventurers to perforate the mass of ore with innumerable holes, without order or regulation; so that it is wonderful that the whole mine had not long ago fallen in, which will probably be the case in less than forty years: single pits frequently tumble in and kill the

workmen; but such accidents excitevery little attention.

Above two hundred private proprietors and workers of mines have their pits on this mountain, and annually extract about two hundred thousand marks of silver.

After I had spent two months in examining into the state of the mines and smelting-houses, I sent a long Report to the Viceroy, in which I pointed out all the defects I had observed, and proposed what I thought the best means for rendering them more productive, and the working of them permanently advantageous, both to the private proprietors and adventurers, and to the king's treasury. But neither here nor at Bellavista, in the province of Cajatambo, a hundred and thirty-five miles from Lima, was I able to effect any thing.

The Viceroy absolutely refused any pecuniary assistance from the funds appropriated to the improvement of the mines; and would not approve of the plan for raising the necessary supplies by a loan. All I could obtain was a commendatory epistle in praise of my zeal. I therefore resolved to remain no longer in Peru—a land morally and physically pernicious to me; --- where I had sacrificed my health to the conscientious discharge of duty; having been obliged, in the execution of the most dangerous and laborious commissions, to act not only as a director of the smeltinghouses, but likewise as carpenter, smith, and mason; and where I had endeavoured by every means to dispel the incredible ignorance and barbarism prevailing in the mint and mining departments, by erecting laboratories, andreading lectures with suitable experiments.

But the overseers and officers of the mines, whose want of skill and malpractices I exposed, counteracted with all their might the royal commissioners, by secret cabals and the basest calumnies. In writing and in conversation they decried the Germans as arch-heretics, German Jews, and cheats; as men, in short, who, it was to be feared, would corrupt the morals of the honest miners and overseers; and tried every means to render them suspicious to the proprietors of the mines, fearing lest, by listening to our instructions, they might be induced to examine too narrowly into the conduct of their ignorant and dishonest servants.

They even excited the Indian labourers against us, by insinuating that the foreigners had come solely for the purpose of working the mines by machinery, and would thus deprive them of the means of subsistence. In this opposition they were encouraged and joined by a numerous band of merchants in the principal cities; as I had spoken loudly against the enormous usury of from 50 to 40 per cent. by which they oppressed the workers of the mines, and made every effort to put a stop to their rapacity.

Before I take a final leave of South America, I shall, for the information of my readers, give a few general observations relative to Buenos Ayres and Peru.

The gold and silver mines are the chief source of riches in this country. The inland trade of the provinces is inconsiderable, on account of the want of culture, and the thinness of the

population; and the foreign commerce is of the passive kind, being almost entirely in the hands of Europeans.

Almost all the mines in Peru were first opened by deserters from the army and navy, sailors, and other vagabonds; and continued to be worked without observance of the mine-laws and regulations, as if merely for the sake of plunder; and most of them are even at present in this wretched condition.

In 1789, three million five hundred and seventy thousand piastres in silver, and seven hundred and sixty-six thousand seven hundred and sixty-eight piastres in gold, were coined at the royal mint of Lima; and in the year 1790, five hundred and thirty-four thousand marks of silver, and six thousand and thirty-eight marks of gold.

Of these sums above one half was the produce of the mines of Gualgayoc and Pasco. The mines of Guantajaya, in the government of Ariquipa, three hundred miles from Lima, and six from the sea-port Iquique, annually yield thirtyeight thousand marks of silver; but might yield a considerable greater quanty, if it were not situated in the dry burning sandy desert on the sea-shore. Fresh water must be fetched from a distance of from twenty to thirty miles; and a common drinking-glass full is sometimes sold at the rate of a piastre. The ores there dug out are for the most part rich horn-ores; and sometimes they mee with large lumps of pure silver.

If Peru, Chili, and Buenos Ayres, possessed the same advantages as the more populous and industrious kingdom

of Mexico, where royal and private banks are established for the support and furthering of the mines, and advancing money to the workers of them, and where, as it is less distant from the mother-country, a stricter obedience is paid to the laws, and a better system of policy and economy prevails—Peru (where every thing still remains in a state of chaotic confusion) might alone furnish annually a four times greater quantity of gold and silver than Mexico, which abounds less with these precious metals. But this is very far from being the case.

From authentic registers transmitted to the governors of the different provinces, it appears that from the 1st of January to the 31st of December 1790, they coined in the royal mints

## BOUTH AMERICA.

Regal wire shitting of a Land

		In Silver. Piastres.	Total. Piastres.
At Mexico At Lima At Potosi At St. Jago Total	821,168 299,846 721,754	3,983,176	5,162,289 4,283,022 867,886

The same in English money, reckoning the piastres at 3s. 7d.

Places.	Gold.			Silve	Γ.	Total.				
	£.	s.	d.	£.	s. d	£.	s.	d.		
Mexico	112,524	11		3,123,886	4 4	3,236,410	15	4		
Lima	147,125	18	8	772,775	4 5	919,901	3	Ì		
Potosi	53,722	8	2	713,652	7 4	767,374	15	6		
St. Jago	129,314	5	2	26,181	19 8	155,496	4	10		
•	142,687	3	0	4,636.495	15 9	5,079,182	18	9		

If to these sums we add the gold and silver fabricated into various utensils for churches, convents, and private persons; and the sums clandestinely exported by the merchants without being coined, which is supposed to amount to a third, or even to one-half of the whole, we may venture to estimate the annual produce at about nine millions sterling.

When the silver has been melted and refined at the royal mint, the following duties are deducted:

One half per cent. cobos, or old established duty to the King.

Six per cent real diesmo, or the King's tythe.

Six per cent. derechos de fundicion, or to defray the expense of melting and refining, for one bar of two hundred marks.

On every mark of silver, one real de la Plata for the salaries, &c. of the royal tribunal of the mines.

As soon as the silver is melted, stamped and proved, eight piastres, five reals, and thirteen marevedis de Plata, is, according to the regulations of the mint, paid for each mark.

Gold only pays four per cent. duty; and after deducting the expense of

melting and proving it, the royal treasury allows sixteen piastres for it, if it be of the fineness of twenty-two carats.

The physicians having certified that, from the deranged state of my health, I could not without the most imminent danger of my life continue to act as commissioner of the mines of the Cordilleras, the viceroy reluctantly gave me permission to return to Europe. Accordingly on the 25th December 1792, I sailed from Callao, the port of Lima, in lat. 12° 3′ S. and long. 298° 30′, on board of a register-ship; which proceeded to Europe by Cape Horn.

Several travellers have mentioned that the regions near the South pole are colder than those of the North. The truth of this observation was confirmed by my own experience; and I can affirm, that during my voyage

ber, I did not find the cold so severe and penetrating as in the same degrees of Southern latitude in the first months of Spring.

On the 28th of May 1793, I safely arrived at Cadiz, and immediately set out for Madrid; where, after spending seven months in tedious solicitations to have the terms of my agreement fulfilled, I at last obtained as a reward for my services a small pension for life.

## APPENDIX,

Containing Particulars, methodically arranged, of the various Countries belonging to Spain, in South America, compiled and translated by the English Editor, from the latest and best Authorities.\*

SPANISH America is divided into Four vice-royalties, of unequal dimensions: viz.

That of Mexico, or New Spain, comprehending New Gallicia, New Biscay, New Navarre, New Leon, New Mexico, the Floridas, and the two Californias.

That of New Grenada, comprehending Terra Firma, Panama, Veraguay, and the province of Quito.

<sup>\*</sup> See the conclusion of the preface.

That of Lima, comprehending Peru and Chili.

And that of la Plata, comprehending Paraguay, Tucuman, and a part of the former Peru.

Between the 40th deg. of N. lat. and the 50th deg. of S. lat. lie these kingdoms of Mexico, New Grenada, Lima, and La Plata. They extend more than 6,000 geographical miles in length, and are from 60 to 900 miles in breadth. The population has been estimated at about five millions of Spaniards and people of various colours, and about as many negroes and wild Indians.

In order to facilitate the administration of justice, these provinces are divided into audicencies, which are again subdivided into partidos. They are also divided into military districts, which are under the authority of captains-general, governors, and commanders.

The viceroys maintain a splendid court, though their power is extremely limited, from the authority possessed by the judges, and from their not being permitted to interfere with the colonial treasures, or the military or marine forces.

The military department is much neglected in all the Spanish possessions; the militia being found sufficient to keep the Indians in subjection: and the marine is confined to ten corvettes, or armed galleons, stationed along a coast extending from nine to twelve thousand miles!

All colonial affairs are finally referred to the Council of the Indies, which holds its sittings at Madrid, and of which the minister of the Indies is the perpetual president.

The inhabitants of these immense territories have, during three centuries, groaned under the severest despotism, so that commerce has been injured, agriculture neglected, and the exertions of industry paralyzed, and in a great measure rendered abortive. Galleons, and afterwards register-ships, were exclusively permitted to carry out European merchandise to the colonies, and in return brought back the gold and silver drawn from the mines of the new world, which the indolent Spaniards saw with persect apathy go to enrich the surrounding commercial nations.

Spain did not, however, succeed in her projects of monopoly, as the other European nations, which were prohibited by the most severe laws from entering any of her colonial ports, nevertheless contrived, with a boldness and perseverance equal to the importance of the object they had in view, to supply these countries with every article of which they might stand in need. In particular our own merchants, as well as those of Holland, employed by turns, gold and the force of arms, to counteract the vigilance of the Spanish Guarda Costas, stationed along the coast, to prevent such contraband traffic. The idea was indeed equally absurd and impolitic to endeavour to shut out the one half of the world from all connection with the other.

From these and other circumstances, no advantage has hitherto been derived from the precious metals, either by America herself or the mother country; since the former is not permitted to exchange her gold and silver for those commodities of which she may stand in need, and the latter is at no pains to supply those wants.

In 1778, Galvez, at that time minister of American affairs, endeavoured to produce some changes in their absent colonial system. Un-

der his administration, thirteen principal ports in Old Spain were successively permitted to engage in a free trade with the colonies. But this minister still wished to prevent as far as possible other nations from a participation in the benefits to be derived from this trade, which was the reason why he only rendered a very sew of the American ports free, and established a most rigorous system of police, in order to prevent the introduction of contraband commedities. We are informed by M. Bourgoing, in his View of Spain, that this liberty was not extended to the Spanish colonies in general till 1785.

However paradoxical it may appear, several Spaniards affirm, that those prohibitory meafures have tended rather to increase than diminish this illicit commerce; but the best informed mercantile men affert, on the contrary, that since this period, the manufactures of Old Spain have been greatly improved and multiplied: the linens of Navarre and of Arragon, the cloths of Segovia, the silks of Valencia, besides various other articles, render the Spanish commerce less dependent on foreign importations.

During 1778, the first year after the establishment of those new regulations, the following number of vessels were freighted for South America, from seven of the principal ports of Spain.

The subjoined tables show at one view the value of their cargoes in British money, and the proportion between the exports of Spanish produce, and that surnished by other states.

PORTS.	o of Ships	Value of Spanish Produce.	Value of Foreign Produce.	Dutles Paid.
<del></del>		<u></u>	$\mathcal{L}$ .	st.
From Cadiz]	63	332,701	922,543	
Corunna	_	69,691	66,826	
Barcelona	_	163,290	52,513	, , , ,
Malaga	34	85,637	12,927	
St. Andero	13	19,128		1
Alicant	3	5,299	2,308	328
—— St. Croix,		1		}
in Tenerifie		30,165		1,735
Total	170	705,911	11,156,924	1)5,841

Table shewing the amount of the imports into Spain from South America, in 1778:

manufacturers on the second of the second se					
PORTS,	No. of Ships.	Value of th Cargoes.	Amount of the Duties.		
		$\mathscr{L}.$	<b>s.</b>	£.	5.
To Cadiz	57	860,257	2	124,388	7
Corunna	21	683,328	6	43,386	10
- Barcelona	25	107,713	15	1,931	15
Malaga	10	24,745	1†	119	15
- St. Andero	8	114,852	9	1,680	6
- Alicant	ં	29,895	13		
- St. Croix, in Te-					
nerifie	6	43,164	4	2,779	13
Total	135	1,863,957	ŝ	74,286	11

From 1778 to 1782, the number of free ports in the mother country had been increased from seven to twelve. The exportations of Spanish merchandize had also, during the same period, been more than quin-tupled, the exports of soreign products in Spanish bottoms more than tripled, and the imports from America in return augmented by more than nine tenths.

The following table, given in M. Bourgo-ing's account of Spain, exhibits at one view the

amount of the Spanish exports and imports to and from South America during 1788:

Total £.3	Canaries	Paima	Alicant	(1)911	St. Andero	Alfacks of Tortofa		Corunna	Barcelona	Malega	Cadiz	Seville		PORTS.
£.3,930,576	55,264	14,971	13,564	1,544	127,071	21,609	9,113	249,838	742,209	318,801	2,281,310	95,275	£.	Value of Span
<u> </u>	8	17	<u>بر</u>	~1	13	2.2	18	S	16	ы	2.5	19	s.	ich (
13,562,357	32,990		815	28,299	281,943	360	79,488		52,082	33,683	3,038,345	14,342	E.	e of Spanish (Value of Foreig:   Value
4-	13			16	1.5	ы	7		2.	17	13	4	<i>s</i> .	Dig:
3 2	71,585	, S	,87	,05	39	, 23	3,88	,63		6,73	,89	3,24	t.	of
ę	1 \$3	H	\$1	Ś	и	17	Ş	14	S	ы	16	'n	۶.	Colonia!

From the preceding table it appears that the total value of the imports from South America, during 1783, amounted to £.22,667,320 9 And the total of the exports to 7,493,933 5 So that the imports exceed the exports by - - £.15,173,387 4

In 1788, the duties on the exports and imports amounted to - 1.386,423 14.

Whereas in 1788 they produced 169 032 5.

Surplus in 1788 - £1,217,391 9.

From various authorities, it appears certain, that Spain has, fince 1783, exported to South America more wines, fruits, and manufactured productions, than formerly; it is equally certain, that she has also since imported a greater quantity of tobacco, sugar, cossee, and other commodities from her American possessions, though these are still far from having obtained that degree of perfection, of which they are susceptible; that, in short, the intercourse between the mother country and her colonies has become much greater than at any former period. Previous to 1778, twelve or sisteen

vossels only were engaged in the colonial trade, and these never performed more than one voyage in the course of three years; but in 1791, eighty-nine ships cleared out from different Spanish ports for South America.

It is not easy to ascertain the exact quantity of gold and filver drawn by Spain, from the mines in her American colonies. Part of these metals is converted into current coin at Lima, Santa-Fé, Carthagena, and especially in Mexico, but a part also is sent under the form of ingots, either clandestinely or legally, to the mother country. Some judgment might be formed of the quantity of the precious metals obtained from the mines, by the duties levied on their produce; but these have greatly fluctuated, nor have they been at all times uniform in every part of Spanish America. The duty at first levied was one fifth, but this was, in some cases, afterwards reduced to one tenth, and in others to one twentieth.

In 1552, Charles V. added to this duty 1½ per cent. to defray the expence of coinage, &c. at a later period, the duty of one fifth was reduced in Peru and Mexico, to one tenth.

According to the latest assessments, the duty

on filver is 11½ per cent. and on gold 3 per cent. From these data, it might, therefore, be supposed that a pretty accurate estimate could be formed of the annual produce of the mines; but the amount of these duties being frequently confounded in the custom-house accounts, with those on quicksilver, paper, &c. they afford no just criterion on the subject.

The most accurate information respecting this matter is, perhaps, to be found in the statement given by M. Helms, which makes the produce almost five MILLIONS, in 1790, nearly three of which were in Mexico.

In 1791, Spanish, as well as foreign merchants, received permission to import N. gro slaves and hardware, and to export the productions of La Plata. This encouragement has contributed greatly to the advancement of agriculture, and the increase of population. The pasture-grounds support millions of oxen, horses, sheep, and swine. Such numbers of horned cattle are reared, that in the year 1792, 825,609 ox hides were shipped for Spain alone. There is an abundance of salt in that province; and no want of convenient places where boats and ships may take in

a cargo of salted slash for exportation. The Rio de la Plata, the Uraguay, Parana, and other smaller streams, afford great advantages in this respect.

In 1796, there arrived 35 loaded thips at Buenos Ayres from Cadiz; twenty-two from Barcelona, Malaga, and Alfaquez; nine from Corunna; five from St. Andero; one from Vigo; and one from Gijon. The value of that part of the cargoes which confifted of Spanish productions, amounted to 1,705,866 American dollars. The value of the following manufactures, &c. which were imported in the above ships, amounted to 1,148,078; and the sum total of both, to 2,853,944 piastres. On the other hand, there failed from Buenos Ayres twenty-fix ships for Cadiz; ten for Barcelone, Malaga, and Alicant; eleven for Corunna: and four for St. Andero. These carried coined and uncoined gold of the value of 1,425,701 piastres. The value of the filver exported amounted to nearly 2,556,304, and that of the other productions of the province to 1,076,877 piastres. The value of all the exports confequently amount d to 5,058,382. The goods exported consisted of 874,593 raw ox hides;

43,752 horse hides; 24,436 skins of a finer sort; 46,800 arrobes of melted tollow; 771 arrobes of Vicunna wool; 2264 arrobes of common wool; and 291 arrobes of the wool of the Guanaco, or camel sheep; 11.890 g rose-wings; 451,000 ox horns; 3223 cwt. of copper; 4 cwt. of tin; 2541 tanned hides; 222 dozen of manusactured sheep skins; 2128 cwt. of salted beef; and 18; cwt. of salted pork.

The increase of trade in the province of La Plata clearly appears from a comparative statement of the imports and exports of 1795 and 1796. In this latter year there were imported 932,481 piastres worth of goods from Spain; 760,361 piastres worth from the Havannah; and 50,154 piastres worth from Lima, more than in the year immediately preceding.

## ACCOUNT

OF THE

## VICEROYALTY OF LA PLATA.

HIS portion of South America may be said to consist of four distinct and grand divisions; viz. the audiency of Charcas, or the detached provinces adjoining Peru; the government of Paraguay proper; that of Buenos Ayres; and Tucuman, with New Chili, or the provinces of Chili which lie to the east of the Andes, and do not belong to the presidency of St. Jago.

In the greater part of this vice-royalty the subdivisions constantly undergo changes; for new colonies are suddenly founded, and ancient ones are frequently abandoned. CHARCAS; on, SOUTHERN PERU.

This audiency is, according to some authors, divided into several large provinces or governments, of which the following are the principal:

Moxos. This province is very extensive: it joins to the south with that of Santa-cruz de la Sierra, and the lands of the Chiquito Indians; to the east it borders on Brasil. It is upwards of 450 miles long from north to south; and nearly 600 broad from east to west. The air is hot and moist, on account of the rivers and vast forests which the country contains. This province is fertile, and abounds in plants, grain, and fruits, which require much heat to bring them to perfection: such, for example, as maize, sugar-canes, yucas (a plant which is made into bread in almost every part of America, and which by many Europeans is preferred to that of wheat,) rice, the platanos, which

the Indians consider as their best aliment, and green ajos, a species of green pear. They obtain abundant harvests of cotton and cocoa-nuts, the pulp of which is so tender and rich, that the chocolate which is made from it is of a better taste, and more nourishing than any other kind. In the forests are found, guaiacum-wood, cinnamon, and a tree called maria, from which a medicinal oil is acquired, which is highly esteemed for its virtue in bracing the stomach. The country also produces quinquina, or Peruvian bark, cedarwood, and almond trees, which are different from those of Europe; besides vanilla, and a quantity of wax. Many wild animals are to be met with, particularly tigers, bears, and hogs. The rivers swarm with fish.

Santa-cruz de la Sierra. This province is bounded on the north by that of Moxos: to the east by the Chiquito Indians; and to the west by that of Mizque. It is a country intersected by hills, and its

elimate, though hot, is not so moist as that of Moxos. It produces a sort of palm wood, which is so hard that it is used for making baleonies, and other purposes which require great strength. There is another species of it, called motaqui, the large leaves of which are used as thatch for the houses, while the small ones are eaten as a sallad by the poorer sort of people. From the body of the tree a flour is obtained which the people make into very pleasant cakes, and eat as bread. This province abounds with all sorts of birds, as well as with tigers, bears, and hogs. The soil produces rice, maize, sugar-canes, &c. and the bees afford quantities of wax.

About sixty miles to the south of the capital are four hordes of Indians, who are on friendly terms with the Spaniards, and supply them with wax, cotton, and maize. There are other Indians to the east of the river of Paraguay, who are such barbarians that they eat their prisoners.

soners. These people have a custom of going to the river at midnight to bathe; and whatever may be the weather, their women also bathe in the open air as soon as they have lain in; when, on returning from their ablutions, they roll themselves on a heap of sand which they keep in their houses for that purpose.

The new Santa-Cruz de la Sierra (for the old town, which was more towards the south, is destroyed,) is a large city, well peopled, and has a governor and a bishop; the latter, however, resides at Misque Poccna.

The cruelty which characterised the first Spanish colonists, gave rise to a shocking degree of anarchy, which has ever since prevailed through those countries. Muratori thus describes their conduct: "Some Spanish merchants," says he, "who had established themselves on the other side of the Peruvian mountains, and particularly those of Santa-Cruz de la Sierra, formed amongst them a kind of

union or company, the object of which was to make slaves of the Indians, and sell them. They entered the In lian territory, particularly the country of the Chiquicos, with arms in their hands, travelled to the distance of a hundred and twenty miles, all the way chasing the savages, as hunters do their prey; and if the spoil which they made on the lands of their enemies were not equal to their wishes, they suddealy fell upon the neighbouring hordes with whom they were at peace, put them without mercy to the sword, or burned alive in their cabins all who attempted to resist them, thile the rest were taken as slaves. To give the colour of justice to their barbarous attacks, they always pretended to have received some injury. On returning they sold their slaves for any price to men who conducted them in chains to Peru, and gained a considerable profit by selling them again. This trade produced several thousand piastres per annum to those who were concerned in it."

Chuquisaca. This province is the first which bore the name of Chaco, a name which may be said to have afterwards performed a journey; as it gradually extended to the southward, and now comprises the low-countries and plains between Paraguay and Pilcomayo.

La Plata, or Chuquisaca, the capital, was first called La Plata, on account of a famous silver mine, which was in the mountain of Porco, near the city in question, and from which the Incas derived immense sums. The nobility of this place are the most distinguished of any in Peru, and they still retain many privileges. The number of the inhabitants is about 14,000, amongst whom are many Spaniards. This city is the residence of an archbishop, whose authority extends over the whole vice-royalty.

Potosi. This corregidory\* contains the

<sup>\*</sup> A corregidory is a district, which is governed by a Spanish magistrate, called a Corregidor. His office combines the duties of a deputy governor, and a justice of the peace.

famous silver mines which have been so often mentioned. These mines afforded between the years 1545 and 1648, the enormous sum of 80,000,000 of pounds sterling; and they are still far from exhaustion. The metal continues to be abundant, though the most accessible part has been taken away, and the Spaniards will not give themselves the trouble to sink these mines very deep, because there are in Peru, and even in the vicinity of Potosi, many others which can be more easily worked.

The city or town of Potosi contains, according to *Helms*, 100,000 souls, inclusive of slaves; but other writers state the numbers at not more than 50,000. We ought, however, to prefer the testimony of *Helms*, because he resided many years in that country. Potosi is the seat of the administration of the mines, and the tribunals that relate thereto: it is the centre of a very considerable commerce, which is conveyed by the river Pilcomayo.

The following corregidories are situated to the north of Potosi and Chuquisaca.

Sicasica. This corregidory, which takes its name from the capital, joins to the north and north-east, with the province of Larecaja, in the bishopric of La Paz: it is one of the largest corregidories in the vice-royalty. All sorts of cattle are bred in it; and it produces every kind of fruit, as well as sugar-canes, cocoa, and good wine. The bark of this district is as good as that from Loxa. Its forests afford several valuable sorts of wood, and it is said to contain two rich gold mines. The inhabitants make the wool of their sheep into various kinds of stuffs.

ORCAO. This corregidory, the capital of which bears the same name, joins on the north with that of Sicasica. It is subject to storms. A quantity of gunpowder is made in it, and it formerly contained some excellent mines of gold and silver, which have been much degraded by inundations. This province extends fifty-four

miles from east to west, and twenty from north to south. Its mines still produce annually about 600 bars of silver, which weigh about eight ounces a piece.

Jamparaes. This corregidory produces fruits, yams, barley, wheat, maize, &c. which are sent to the cities of La Plata and Potosi. It has a considerable saltmine, and the country furnishes wine and sugar. Amongst several wild birds which it contains, there is one called the carpenter, as it perforates the trees with its beak, and builds its nests in the holes.

Misque. This corregidory joins to the south with that of Jamparaes. Its productions consist of maize, pulse, sugarcanes, and wine, and its forests afford cedars, bark, &c. It also has a silver mine.

CAYATA. This corregidory, which bears the same name as the capital, borders to the east on that of Jamparaes. It is 108 miles long from east to west, by 132 in breadth, from north to south. Its tem-

perature is very variable. In its valies wheat and maize are grown, and cattle of every kind are reared. It contains two mines of gold, three of silver, one of copper, one of lead, and one of tin. The forests furnish different sorts of wood, and a number of parroquets harbour in the trees: they also abound in bees, whose honey is well known by the name of the Charcas kind.

COCHABAMBA. This corregidory, the capital of which is Oropesa, borders to the south on that of Cayata; and to the west on that of Sicasica. It is 120 miles long, by 96 broad; and is called, with propriety, the granary of Peru: for it produces vast quantities of grain and seeds. The fruits of the valley of Arqua are much celebrated. In the higher parts they breed sheep and horned cattle. Formerly much gold was derived from this district, and very lucrative veins are still met with.

pital of which is Tarapaca, contiguous to the laguna, or lake, called das Aullagas, is 108 miles long, by 90 in breadth. A number of cattle and hogs are raised in it, as well as Peruvian sheep. It has silver mines, which are well worked, and in which lumps of massive silver are found, that, according to Ulloa, often weight 75lbs, and upwards each.

Paria. This corregidory likewise bears the name of its capital: it borders to the north on that of Sicasica; and to the west on that of Carangas. The people rear Peruvian sheep and lamas. It contains salt mines, saline lakes, and hot springs. There are worked in it a mine of silver, one of tin, and one of lead.

PILAYA and PASPAYA. The capital of this corregidory is called Cinti. It abounds in fruits and wine; and they make from the grapes a very celebrated sort of brandy,

Tomina. This corregidory bears the same name as its capital, and is 72 miles in length, by 210 in circumference; but one part of it is occupied by Indians. Its climate is very hot, particularly in the vallies. It abounds in fruits, and plantations of sugar-canes, the latter of which are said to last thirty years.

There are also quantities of cattle and horses. In a village called Olopo, a district of Tomina, the natives are so little and deformed, that they seem like pigmies. They are also much afflicted with ruptures.

Porco. The corregidory so called, whose capital is Talvevara de Puna, is 180 miles long, and 120 broad. The inhabitants rear great numbers of cattle, sheep, and guanacos. There are hot springs; and the principal revenues arise from the produce of two gold mines, one silver mine, and one of copper. A single miner some years ago found in the

district of Tomaheur, a lump of metal worth 3,000,000 of dollars.\*\*

Atacama. The capital of this corregidory bears the name of St. Francois d'Atacama. It is bounded on the north by the province of Arica; on the south by Chili; and on the west by the South Sea. It abounds in fruits and seeds; and the mountains produce ostriches and numbers of Peruvian sheep. There are also two silver mines, two of gold, one of copper, and one of lead, as well as some hot springs, and a lake, the water of which is as salt as that of the sea. Tale and alum are also found here.

<sup>\*</sup> In commerce, the Spaniards give the name of piastre to the common Spanish dollar: though there is a coin of the same kind, which circulates in Portugal and Spain under the name of piastre, and which is something inferior in value. The piastre of Italy passes for five shillings sterling, that of Spain for three shillings and seven-pence. If we estimate the value of this lump, according to the piastre of three shillings and seven-pence, its amount will be \$37,500%!

Lipes. This corregidory, whose capital is of the same name, borders to the east on that of Atacama. It is 180 miles long, by 60 in breadth; and it affords an excellent kind of bark, and a sort of millet. There are also numbers of ostriches, partridges, and Peruvian sheep; and in the plains are found salt, salt-petre, and sulphur. It also contains mines of red and white copper, the strata of which are intermixed with gold and silver, iron and loadstone. The silver mine is very abundant.

CHICAS. Tarija is the capital of this place. Its soil produces a quantity of corn, oil, grapes, and other fruits.

## PARAGUAY.

As the subdivisions of this great province are very imperfectly known, we shall describe them in a more general manner than we have done the places preceding.