

safety, even with the greatest precautions. In the rear of the flocks, the Coyotes, or Mexican jackall, might be discovered prowling in considerable numbers; and at a little distance from San Ignacio we met a band of Rancheros, returning in high glee from the tanque of Juan Perez, where, they informed us, they had been lassoing some wolves which had committed great devastations, and driven the cattle from the water. Every thing, in short, was characteristic of a state of things in which civilization had made but little progress: the natives possessed both the honesty and the hospitality of a primitive race; for our horses were brought back to us on the evening of our arrival at Sierra Hermosa, with even the holster-pistols untouched, notwithstanding the eagerness with which European fire-arms are always eyed in America; and at the Hacienda we met with a most friendly reception from the Administrador and his family, who insisted upon giving up to us all the best apartments in the house.

The estate of Sierră Hërmōsă consists of two hundred and sixty-two Sitios: the lands extend from Cătōrcě, (to the East,) and Măzăpîl, (to the North,) to a little beyond the Hacienda in the direction of Zăcătēcăs, (about forty-five leagues.) The stock consists principally of "ganado menor," sheep, and some goats. Of the first, the Conde himself has 200,000, which produce annually from 25 to 30,000 yearlings for the Mexican market. The goats are sent to the Cășă dē Mătănză (slaughter-house) of the Jăral.

Those killed at the Sierră are upon the account of the Administrador, for all the principal "dependientes" upon the Count's estates receive a very small salary, in lieu of which they are allowed to keep a certain quantity of live stock upon the land. Many of the Rancheros, who have only four or five dollars a month in money, possess as many as a thousand goats, with an "atajo" of eighty or a hundred horses. The Administrador during our stay was killing one hundred goats every day; and he informed me that his mătănză, (or killing season,) usually lasted a month. The hides and tallow are disposed of for his exclusive benefit, and the profits are sufficiently large to afford him a very comfortable maintenance.

A supply of maize, for the consumption of the estate, is grown about the Hacienda, and there is likewise a great annual shearing, which produces between four and five thousand arrobas of wool.

We passed the whole of the 8th of December at Sierră Hërmōsă, in the vain hope of hearing something of our lost mules, and proceeded on the 9th to the Hacienda del Mėzquītē, which derives its name from the thorny shrub that forms the only apology for vegetation upon the road. The distance is seventeen leagues, but with the exception of Căñăs, an estacion de Gănădō Măyōr, (literally a station for cattle,) with a large Noria, and some trees, which, with a plot of fresh-looking grass in the immediate vicinity of the water, form an agreeable

break in the dreariness of the surrounding country, we did not meet with a living creature upon the way. Nothing can convey more thoroughly the feeling of desolation than the solitude of so extensive a district, and we were all rejoiced when, after nine hours' travelling, we at last discovered the Hacienda, which is not visible until you are within a league of the house, as it is situated in a hollow, a little below the general level of the plain.

The Mēsquītē is one of the fourteen Haciendas of which the Conde de Pěřez Gālvěz is proprietor. Some of these are situated in the Baxio, (about Silao;) another, (Gūanāmē,) lies near El Vēnādō; and in the neighbourhood of the Mezquīte there are three, (Las Nōriās, Běrgēl, and La Sālādā,) all bordering upon one another, and placed under the orders of the same superintendent (administrador,) who resides at El Mezquīte, where the cāsā de mātānzā is also established.

The four Haciendas contain 200 Sitios, upon which there are about 150,000 goats and sheep. The mātānzā of 1826 consisted of 29,000 fat goats, bred upon the lands of Běrgēl and Lās Nōriās, and killed at the rate of two hundred every twenty-four hours: the tallow (cebo) made from their fat was sent to Mexico; the skins to Guadalajara, where they sold upon an average for six reals each.

The house at El Mēzquītē is large, and well furnished, having occasionally been visited by the proprietors. A tienda (or shop) is attached to it.

The water of the Noria is abundant; but there is not a tree near the Hacienda, nor any thing like vegetation, with the exception of some maize-fields, upon which a few fanegas of Indian corn are grown. Upon the whole, I can hardly conceive a more melancholy residence, for the air is filled at night with the dismal howlings of the Cōyōtēs, who are attracted by the offal from the casa de matanza, and who absolutely swarm in all the thickets around, although from two to three hundred are destroyed every year in the *battues*, for which the Rancheros assemble periodically, in order to keep down the breed.

Dec. 10.—From the Mezquite it was our intention to proceed to Rancho Grande, where we were to enter the great Northern road, between Frēsniļō and Sōmbrērētē, but the administrador recommended us so strongly to pass the night at the Hacienda of Lā Sālādā, which he described as well worth visiting, and but little out of the road, that we were induced to change our plans, and to turn the heads of our horses in that direction.

The first view of the Hacienda is exceedingly curious, as it is situated upon the borders of a lake of tēqūesquītē, or carbonate of Soda, which, from its brilliant whiteness, is visible at a great distance. This extensive deposit of mineral salt forms one of the most valuable possessions of the Pěřez Gālvěz family in the North; for tēqūesquīte being a necessary ingredient in smelting, it is bought up in

very large quantities by the miners of Dūrāngō, Sōmbrērētē, Zācātecās, and Guāñājuātō, to whom it is sold at four reals the fanega, or one dollar the mule load, upon the spot. In a good year the lake yields 30,000 cargas, or 360,000 arrobas, (of 25 lbs. each,) and the produce is then worth between forty and fifty thousand dollars; as the price paid for the carga by soap-makers, and other manufacturers, from San Luis and Guadalajara, is always double the mining price, and, when the demand is great, rises to three, and even four dollars. But the quantity of tēq̄uesq̄uitē collected varies with the year, and depends almost entirely upon the rainy season. If too little rain falls, the "costre," or saline incrustation, which is the most valuable part of the crop, does not form, and nothing but "polvillos," (dust,) of a very inferior quality, is collected. If, on the other hand, the rains continue too long, the earth has not time to dry before the middle of April, which is the season for collecting the tēq̄uesq̄uitē, and the whole is lost. In 1826, the stock upon hand was very small, and the prospects for the ensuing year discouraging; it not having rained when we passed, on the 11th of December, since the 25th of the preceding July. In a favourable season, the "costre" varies from one to four fingers in thickness, and is of sufficient solidity to allow the workmen to walk upon it without giving way. The depth of water beneath is very inconsiderable. The stock of tequesquite is laid up for sale in large conical hillocks,

carefully covered with earth. The formation of these hillocks at the proper season is the only expence with which the disposal of the crop is attended, for the purchasers come with their mules to the Hacienda, and load them by the water-side. The produce of the lake might undoubtedly be increased, and rendered more regular at the same time, by irrigation, which would not be attended with any difficulty, even in the driest seasons, as there is a supply of fresh water close at hand, which might easily be directed into the hollow where the carbonate of Soda is produced. But the Count, who is of the old school, maintains that this would be to force Providence, and under this impression he will not allow nature to be even assisted in her operations.

The Hacienda of La Salada contains only two Sitios in land; the house is newly built and very pretty. There is a spring of beautifully clear water behind it, with some trees, the first, almost, that we had seen since leaving the Jārāl.

Dec. 11.—We commenced our journey early, and stopped to breakfast at Rānchō Grāndē, a large village situated upon the banks of a stream, which rises in the mountains of Frēsñillō, and runs N.N.E. towards Parras, and from thence to the Gulf.

At the Rancho we procured excellent bread, (the first that we had tasted for three days,) and milk in abundance. From thence to Ātōtōñilcō, a Hacienda belonging to the Dominican Friars, the distance is eleven leagues, the last five of which, through

Bărrăncă Hōndă to the mēsōn, are exceedingly steep and rugged. In one of the worst parts of the road we were reconnoitred by six men on horseback, the only suspicious characters that we fell in with upon our whole journey, who, after observing us for some time from the top of a hill that overlooked the road, moved off at a very rapid pace on our advancing towards them in our turn. They probably thought the party too formidable to be attacked, for we were both more numerous and better armed than themselves.

Our accommodations at Ātōtōnīlcō were of the very worst kind, the house being half in ruins, and the dirtiness of the rooms quite indescribable. For our supper I had fortunately provided by shooting three or four hares, and ten quails of a remarkably large kind, upon the way. They are a very delicate bird, and are found in great abundance on the road from the Mezquite to Sōmbrērētē, and from thence again to Guādālājārā. As they run for a considerable distance after each flight, and are easily lost amongst the bushes, I found that the best mode of shooting them was to make a servant follow the covey on horseback after I had fired, and keep his eye upon them until I could reload and ride up to him again. In this way I could, at any time, procure as many as we wanted, for they fly straight, and are a very easy shot. Between Ātōtōnīlcō and La Sālādā we saw proofs both of the abundance of cōyōtēs, and of the facility with which they may

be secured with the lasso. Thirteen of these animals were hunted down on a plain by the road-side, by a few Rancheros assembled for the purpose, and very speedily suspended to two trees. To fix the lasso but little dexterity is required, as the cōyōte is pursued by the horsemen until he is nearly exhausted, when the noose is dropped over his head, by one of the party, while another alights and despatches him with the mächēte. Where the ground is open, he has hardly a chance of escape; but in the neighbourhood of a Bărrăncă, the struggle for life is maintained with great energy, and even when the fatal noose has been affixed, I have seen the lasso itself divided by the teeth of the animal, before the cord could be stretched in such a manner as to terminate his resistance. While the chase lasts, the horses display astonishing agility both in their rapid turns, and in the dexterity with which they avoid the nopals, and Mezquite trees, amongst which the cōyōte usually seeks protection; but I should much doubt whether, if the animal were to stretch directly across the plain, they would be able to overtake him, unless in the morning, when gorged with food; which is indeed the hour usually selected for the purpose. In the evening I have often attempted to ride them down myself, but never succeeded, except in one instance, in approaching sufficiently near to try a shot with a pistol. This may, however, have been owing a little to my dislike of the tūlsāles, which often prevented me from keeping my horse at full speed.

Dec. 12. — From Ātōtōnīlcō to Sōmbrērētē, thirteen or fourteen leagues.

There is little worthy of remark upon the road. We breakfasted at el Ārēnāl, a Rancho; upon leaving which we had an immediate view of the mountain of el Sōmbrērētīllo (seven leagues distant), at the foot of which the town of Sōmbrērētē stands. The name is derived from an excrescence upon the summit of the mountain, not unlike a hat in appearance, and visible at a great distance.

About four leagues from the town we were met by Don Nārcīsō Ānītūā, the proprietor of the mines worked by the United Mexican Company in the district of Sōmbrērētē, and conducted by him to his own house; where we remained during our whole stay, which was prolonged till the 17th of December, in order to allow time for a full examination of the mines.

These are situated upon the two great veins of La Veta Negra and El Pāvēllōn, the existence of which forms a very remarkable feature in the district of Sombreterete; as, though perfectly distinct, they run parallel with each other in the same direction (S.E. and N.W.) at a distance of only 190 varas at the surface, which diminishes in the lower workings, (from the inclination of the lodes towards each other,) until, at the depth of about 780 varas, it is supposed that the two may blend into one.

Upon each of these veins there is a series of shafts, which were originally separate mines. Those upon

the Veta Negra were afterwards connected with each other, in the lower levels, by what is termed the "Cañon General," a gallery which traverses the whole of the workings and conveys the water to the western extremity of the vein (the Tiro de San Pedro), where the horse-whims for the drainage are to be erected.

From the shaft of San Pedro to that of Sān Lūcās, the works upon the Veta Negra comprise a space of 800 varas; the whole of which, when I saw the mines, had been cleared, drained, and retimbered to the depth of 280 varas, since the 3d of December 1825. Works of great extent had been likewise executed in order to give the mines a proper ventilation, (the abundance of arsenical pyrites in the lower levels rendering great precautions necessary,) and a communication had been established throughout the whole by means of the cañon general.

On the vein of El Pāvēllōn, the great shafts of La Cruz and San José, (the first of which is three hundred and ten varas in depth,) had been, in like manner, repaired, and six malacates erected at each for the prosecution of the drainage.

In order to form a just conception of the character of the enterprise in which the Company is engaged, some knowledge of the previous history of the mines is requisite.

Both the Vētā Nēgrā and the Pāvēllōn were known during the early part of the seventeenth century. Of the first little is known; but the Pāvēllōn in 1670, was worked by a company con-

posed of three individuals, Don Francisco Cóstilla, Don Matías Carrasquilla, and Don José de la Peña Duran, and produced, in the year 1675, a bonanza, which is said, by a contemporary author, to have yielded, for five years, 20,000 dollars a-day.*

This statement is probably exaggerated, but the amount of silver raised must have been very considerable, as the church of San Juan Bautista, at Sombrerete, is known to have been built out of the profits of one barra, (that is, one share out of twenty-four,) set apart for the purpose by Costilla, one of the three proprietors, in the year 1679.

In 1681 a Real Caja, or Royal Treasury, was established in the district, by the registers of which it appears, that in the next ten years, although the riches of the Pavellon are said to have decreased materially during that time, the sums paid as the King's fifth, upon the whole produce of the district, were 1,406,468 marcs, and six ounces of silver, or about twelve millions of dollars.

The causes which led to the abandonment of the mines from which these enormous riches proceeded, are not now known; it is supposed, however, that lawsuits first induced the owners to suspend their operations, and that the accumulation of water, which took place during the interval, rendered it impossible to resume them in those early ages, when the powers of machinery were so little known. Be this

* *Vide* the Cronica of Zacatecas, 1736.

as it may, the Pavellon was given up in 1696 or 1698, and the Veta Negra appears to have shared the same fate about the same time.

For nearly one hundred years Sombrerete was almost deserted; but in 1780 the mines were again taken up by the Fägöögä family, which was destined to derive from them, a few years later, such unexampled wealth. The story is curious, and ought to be known.

It appears that Don José Mariano Fägöögä, one of the brothers, who was at that time engaged in some mining speculations at Fresnillo, visited Sombrerete, accompanied by his secretary Tarve, who was induced, by the information which he acquired there respecting the Veta Negra, to persuade his master to risk 16,000 dollars upon an attempt to work this vein, of which he (Tarve) undertook the direction, with a promise of one-fourth of the profits as his recompense, in case of success.

Without any pretensions to science, Tarve possessed activity enough to make an excellent director, while the under-ground management was entrusted to Don Manuel Unzain, reputed to be one of the best miners of the day. Fortune smiled upon their exertions. The mines became productive almost immediately, and a bönanză ensued, of which Tarve's fourth amounted, in 1786, to 360,000 dollars. The whole bonanza therefore, taking the "partido" at the most moderate estimate, (one-eighth,) must have been 1,620,000 dollars.

In 1787, Tarve, having acquired a sufficient capital, and an intimate knowledge of the mining capabilities of the district, resolved to commence operations upon his own account, and to attack the vein of the Pavellon. With this view he set out for Mexico, in order to close his accounts with the Company, and to give up the management of the Veta Negra, which he had conducted with so much success. He was taken ill upon the road, and died at Zacatecas, but not before he had bequeathed his confidential mining "dependiente," Don Juan Martin de Īzmēndī, as a precious legacy to his old patrons, and with him a knowledge of his projects with regard to the Pavellon.

In these Izmendi was supported by Don José Mariano Făgöägă; but the family being reduced by various misfortunes, and the mines of Veta Negra failing almost entirely at the same time, it was with the utmost difficulty that he obtained the means of carrying his plans into execution; and he only effected it at last, by disregarding the positive and repeated orders which he received to give up the work.

Tarve's favourite scheme was to drive a level from the Veta Negra in such a direction as to strike the vein of the Pavellon (which runs through much higher ground), a little below the spot where the bonanza of the preceding century had ceased, conceiving it probable that, in a vein which had produced such extraordinary riches above, the dete-

rioration that had taken place afterwards, would only be temporary, and that the ores would resume their original quality below.

This work Izmendi executed, by driving the Crucero (cross cut) of San Rafael, which led to the second great bonanza of the Pavellon, and rendered the Marquis of Apartado and his brothers the wealthiest individuals of their day in Mexico, or perhaps in the world. It is a curious fact, and one that serves to illustrate the vicissitudes inseparable from mining adventures, that had this crucero been executed with the same precision as the rest of Izmendi's works; that is, had it preserved its original level, and struck the vein of the Pavellon one single yard lower than it did, it would have cut the vein in "*borrasca*," that is, in a part where it presented no indications of rich ores; in which case, the enterprise would have been instantly abandoned, Izmendi, and his patron Don José Mariano Fagoaga, denounced as rash and imprudent adventurers, and the district itself forsaken, as one from which nothing more was to be hoped. As it happened, the level of San Rafael, by rising one vara higher than it ought to have done, according to the measurements, struck almost the lowest stone of a "*clavo*," or natural deposit of rich ores, which, although it did not extend above sixty varas in depth, or thirty-five in length upon the course of the vein, produced a bonanza of eleven millions and a half of dollars, adding one-eighth as partido to the value of the