were, according to Vanegas, seven stories high; and at Tagique the houses were evidently several stories high. Add to this, that at Quivira there is yet to be seen the remains of aqueducts. Now. I think it can be shown, that the people of Mexico and its immediate vicinity built their houses several stories high, while the other nations that the Spaniards saw did not build to a greater height than one story. Solis says, the city of Iztacpalpa consisted of houses two and three stories high. In the city of Mexico, he mentions that the king's jester lodged in the second story of the house that contained his zoological collections. He also states, that there was a thick wall, reaching from a neighboring mountain, with two open canals of stone and lime, of which one was always in use whenever the other required cleaning. In another place, "there appeared on one side two or three rows of pipes, made of trees hollowed, supported by an aqueduct of lime and stone." On the other hand, it is stated "that the Indians of the coast made their houses of stakes, interwoven with boughs and leaves, having in many places no other houses."

The present ruins of buildings that we find at Abio, Quarra, and Quivira, were erected by Indians under the direction of the Spanish priest; we find such men as father Kino, who settled among the Indians, urged by a zeal for the cause of the holy cross; and they soon obtained so great an influence over the Indians as to be enabled to erect "houses, chapels, to form villages and towns." Vanegas mentions a holy man, named Juan Padellas, who went to Quivira, shortly after the visit of Francisco Coronado. The soldiery never staid long in any of the Indian villages, they were more inclined to search for gold than desirous of instructing the natives in architecture, by erecting houses; or in architecture and religion, by the

erection of chapels in which they worshiped.

In the history of Clavegero, one will find many things which tend to prove the most striking similarity between the ancient races that dwelt in New Mexico, and the tribes which people the region of Anahuac. Clavegero says, they "constructed, in their pilgrimage, many edifices in those places where they stopped for some years. Some remains are still existing, as we have already mentioned, upon the banks of the Rio Gila, in Pimeria, and near the city of Zacatecas." In another place, speaking of the emigration of the Aztecs, he says, "having passed the Red River, (Rio Colorado.) from beyond latitude 35°, they proceeded towards the southeast as far as the Rio Gila, where they stopped for some time; for at present there are still remains to be seen of the great edifices built by them, on the borders of that river. From thence, having resumed their course towards south-southeast, they stopped in about 29° of north latitude, at a place which is more than 200 miles distant from the city of Chihuahua, towards north-northwest. This place is known by the name of Case grandi, on account of an immense edifice still existing; which, agreeably to the universal tradition of these people, was built by the Mexicans in their perigrinations. This edifice is constructed on the plan of those of New Mexico; that is, consisting of three floors, with a terrace above them, and without any entrance to the under floor. The door for entrance to the building is on the second floor, so that a scaling ladder is necessary; and the inhabitants of New Mexico build in this manner, in order to be less exposed to the attack of their enemies; putting out the scaling ladder only for those to whom they give admission into their houses. No doubt the Aztecas had the same motive for raising their edifices on the same plan, as every mark of a fortress is to be observed about it, being defended on one side by a lofty mountain, and the rest of it being surrounded by a wall about seven feet thick, the foundations of which are still existing. In the centre of this vast fabric is a little mound, made on purpose, by what appears, to keep guard over and observe the enemy. There have been some ditches formed in this place, and several kitchens utensils have been found, such as earthen pots, dishes, jars, and little looking glasses of stones itztli."

We are struck with the great similarity between the "casa grande," and the buildings at "Acoma" and the "Pueblo de Taos." Did we need stronger proof of the common origin of the New Mexicans and the Aztecs, we find it also in Clavigero, in the following words: "Besides, from Torquemada and Betancourt we have proof of it," (he means by it merely that the nations of Anahuac came from the north,) "on a journey made by the Spaniards, in 1606, from New Mexico to the river Tijon, 600 miles from that province, towards the northwest; they found there some large edifices, and met with some Indians who spoke the Mexican lan-

guage."

I have made mention several times of the kingdom of "Cibolo."
This kingdom was composed of seven towns; which calls to mind that the nations of Anahuac were composed of Xochimilcas, Tepanecas, Chalchese, Hahincas, Tlascalans, Colhuans, and Mexicans, seven in number; and they are said to have preserved this arrange-

ment of tribes in all their wanderings.

And now let us try to locate the "Cibolo," or the kingdom of the buffalo. We find at the present time two places in New Mexico, which bear in their names traces of this "Cibolo." One is called "Cibolleta," and the other "Joya de Cibolleta." The first is situated about 60 miles west of the Rio del Norte; the latter is situated upon that river, opposite the mouth of the Rio Puerco. Vanegas states, that Vasquez Coronado marched from the seven towns of Cibolo to Tigue, on a river where he got intelligence of Quivira; and "that a body of Spaniards were sent thither, being 300 leagues further, along a level country, but thinly peopled." From this we learn that Coronado's party had to march some distance before reaching that river, and then had a long march, in order to reach Quivira; and that the country over which they passed was "a level country."

As has been already stated, Cibolleta is some 50 or 60 miles west of the Rio del Norte, (which is in fact the only river in New Mexico, and must be the one referred to on which Tigue was situated,) and one can march from Cibolleta to Quivira, and keep upon a level country, going through the pass in the mountains near Abo.

Add to this, that Cibolleta is situated in a group with the towns of Moquino, Poguate, Rito, Laguna, Covero and Acoma; in all, seven towns, and only seven; the same number which composed the ancient kingdom of Cibolo.

The level country between Quivira and Cibolleta, would permit

the buffalo to extend their range to the latter place.

Clavigero makes known a curious custom of the Indians of "Cibolo," which was not practised by the nations of Anahuac, but it resembles that of our prairie Indians; it is in using dogs to carry burdens. Clavigero mentions the dog of Cibolo, or dog of burden, "a quadruped of the country of Cibolo similar in form to a mastiff, which the Indians employ to carry burdens; several historians mention this strong animal,"

Although these remarks may be looked upon as an unnecessary digression, yet they may be useful in attracting the attention of some more able investigator to this subject. I have made them as

brief as possible.

November 5 .- This morning, when about starting, we noticed some mule tracks that had evidently been made by animals under human guidance. They had come from the direction of Quarra, and after approaching quite near our camp, had retraced their steps, going back by the same route. We had been too long in the woods not to notice these things, yet we all tried in vain to discover the object of the persons. Towards midnight we had a severe shower; these tracks had been made subsequent to the shower.

We had quite a hearty laugh at our guide, who had never been beyond Chilili and Tagique, but still would not admit it. Yesterday, he had insisted that Abo was much farther off than it had proved to be; and now, to confirm what he said, he declares that there is another Abo. We feigned an intention of going there at once, when he cried out, that it was a dreadful place, "no hay,

agua, pasto, leña, gente; nada, nada, señor."

Leaving the wagon to proceed slowly, I went over to the old church of Abo, is order to make a sketch of the wenerable ruin. It. is impossible to get any account of these hoary monuments from the inhabitants of the neighboring towns. We frequently questioned them with regard to such relics, but their responses were wrapped in the mystifying language of ignorance, or the very unsatisfactory reply of "quien sabe.". They view our inquisitiveness with a jealous eye, for they can only account for it by supposing that we are in search of gold, which tradition has said is buried beneath the altars and floors of these old churches. It is related of an old man who lived in Santa Fé, that after having amassed quite a snug little sum of money, he induced several others to join him in an expedition to Quarra, where he spent all his gains in digging in the aisle of the old church. The hole, now half filled up, still remains a monument of his folly. It is also stated, that while engaged in this search, he exhumed the bones of some one who had been buried beneath the floor of the building. They were supposed to have belonged to some priest; and at night, when the old man thought his comrades were all asleep, he went and knelt down, and invoked the soul that had once animated these bones with most humble entreaty and most powerful arguments and promises. He told the spirit, that as it had always been here, it must know where the treasure was deposited, which if left concealed would do no one any benefit; but if it would inform him, that he vowed by all most holy, to have these bones intered in sacred ground, and would purchase masses without number; but it was all in vain.

We had a fine road, and travelled on at the rate of three miles an hour. For the first five miles, we followed the stream on which Abo is situated; as we proceeded, it became perfectly dry. Its course is nearly due west to the Rio del Norte. As it goes through a narrow canon, we were obliged to follow the toad, which led us through a crooked mountain gorge, whence we emerged into the great valley of the Del Norte.

We saw a plant that bears some resemblance to the yucca, and is called "palmello angosta;" also, a "mahonia," the leaves of which are very much like the holly; this the Mexicans call "palomereo."

As we descended into the valley, we found a great and very perceptible change of temperature. The sun now seemed as if his influence was gaining the ascendancy over that of the snow-capped mountains; and when we reached the foot of the sierra, we found some beautiful plants still in full bloom. Continuing our journey, we, ere long, saw a large band of antelope dash across the road. This circumstance gave us hope of soon finding water; and, in a few moments more, we perceived a herd of cattle grazing near the road. When we reached them, we found several little ponds of water, and encamped alongside of them; having made a journey of 20 miles. We had scarce completed our arrangements, when a dark cloud came sweeping along the sierra, pouring down rain and hail; but it passed over us rapidly.

November 6 .- Our road now led across a level plain, which consisted of a mixture of small gravel and sand. Although a good road at any time, still the shower of yesterday had rendered it more compact, and we made a rapid march, completing a journey of 18 miles by noon; when we encamped at "Casa Colorado," a little town on the banks of the Rio del Norte, near a large acqueia that passed between the town and the river. We here heard that General Wool had taken Chihuahua without any opposition, but we knew the Mexicans too well to place confidence in this report, and could only hope that it was true, without permitting the rumor to

have any influence on our plan of operations.

In the afternoon, we went to pay our respects to the alcalde, and to ask some questions with regard to the surrounding country; but found our visit very unprofitable. He had some very old pictures, in large, oval frames, that had once been beautifully gilded. We asked him questions with regard to them, but all his answers were prefixed with "quizas," (perhaps.)

North of the town there are several large ponds; their surfaces were covered with ducks and geese, and long-legged cranes were

stalking about their margins; but they will not allow any one, with a gun in hand, to approach.

We noticed several vineyards near us; the vines had been trimmed off very short, and were surrounded by mounds of earth, between 2 and 2½ feet high, to protect them from the frosts of winter.

November 7.—Hearing that some Americans were encamped near us, we sent a messenger to them, in order to inquire if they had heard any news from Chihuahua. We learned from Mr. R. Gentry the rumor that General Wool had entered Chihuahua; but no positive information had as yet been received.

Leaving Casa Colorada, we continued our way down the Rio del Norte. Having proceeded four miles, we crossed the mouth of the stream that rises near Abo. One mile more brought us opposite to the town of "Savinal." We also passed a cluster of "rancherias;" one set seven miles from one point of departure, and in sufficient number to be dignified by the name of "Rancho de Mitra."

After marching 12 miles we encamped on a salt plain, by the side of the river, close by same cotton wood trees. Here we noticed some pools of beautifully clear water, and, on stooping down to taste of the inviting element, we found it perfectly saturated with salt. The plain around us was covered with a white efflorescence that one could scrape off with great ease, and, in a little time, obtain an abundance of sait.

November 8.—Last night the wind blew so strong as to endanger the stability of our tent. Streams of rain were driven against the cloth walls of our frail shelter by the strong northwest blast; for the wind had changed diametrically opposite to its course when we first encamped.

This morning the bad weather yet continued. A cold damp mist is incessantly descending. At length we saw gleams of sunshine now and then illumine the distant hills, and we started. About 12 o'clock the wind changed to the southeast, the mist ceased falling, and cleared away, but the blast blew chill, and we were fain to wrap ourselves closely in our "tilmas." After marching four miles we arrived opposite to the mouth of the Rio Puerco, and three miles more brought us to the town of "La Joya de Cibolleta." I was struck with this name when I first heard it, for it is not Cebolléta; but one finds in the name a trace of the ancient kingdom of Cibola. This place is "the jewel of Cibola."

We were much amused with the laconic replies of some persons that we met upon the road—whence do you come? "De abaxo," (from below.) Where are you going? "Arriba," (above.) What news have you! "Nada," (nothing.) Men who can give such non-committal answers certainly possess considerable finesse. There is much more wit in these replies than in the stereotyped joke of "comprendo pero no quiero," that is every where echoed through New Mexico. Alas the degeneracy of the times. O temporal O mores! It would make Cervantes weep, and, in despair, burn up his works.

At Joya we purchased some corn for cur mules at the rate of \$3

the "fanega." Continuing on to Joyeta, which is six miles further, we encamped under a large grove of cotton wood trees in the vicinity of an acequia.

The course of the river to-day was tortuous; high sand banks closed in on each side, almost obliterating the valley, except at Joya and Joyeta, where there are fields sufficiently broad for raising corn enough to supply the wants of the people, and to afford grazing grounds for their cattle. To-day we saw great quantities of the mezquit "prosopis glandulosa," and a curious evergreen plant, belonging to the zygopyllaceae, that gives out a very pungent odor, resembling kreosote. It occurs in dense spherical masses, similar to the common box, which, at a little distance, it resembles. Its height is not more than two to three feet. The leaves are entire, as large as those of the box, and shaped like the tail of the letter Q. It loves a sandy soil, and prefers the hill sides to the plains.

November 9.—From Joya we observed quite a change in the appearance of the country. The river banks are now heavily timbered with cotton wood; the high sand bluffs close in to the river, and the climate has become much milder, while the plants around show a great change of latitude. Of casti four varieties have suddenly burst upon us, and there we found the broad palmated variety growing in magnificent luxuriance. The leaves, if I may so call them, measure 14 inches in length and 11 inches in breadth. We also saw a variety with a stem resembling that of a young shoot of the orange tree, one-third of an inch in diameter, with spines two and three inches long, and these covered with thin semi-transparent sheaths. The "C. undulata" covered the hill sides, mingled with the mezquit "P. glandulosa."

As we pursued our way along the river side, we saw many flocks of sheep that the "pastores" had driven in from the mountains, for fear of the "Navajoes." The whole country was in a state of alarm, and the road was lined with "voluntarios" hurrying to the rendezvous. At Sabino we found that many had already assembled, armed with muskets and escopettes, with cartridge boxes that were buckled round the waist, full of death-dealing lead and powder.

After passing through the town, we still found the people gathering together in little groups, the valley still full of sheep and goats, so that the hills resounded with their bleating. After marching 11 miles we reached Parida, and passing two miles beyond the town, we encamped at the foot of a high sandy bluff, which we will have to cross to-morrow. Our mules will then be ready for climbing the steep and sandy acclivity. "Socorro" is on the opposite side of the river, and one mile below us. From the hill near which we have encamped there is a fine view of Socorro and the ruins of "Las Huertas," four miles below, as well as of Limitar, which is seven miles above. Between us and the above named places rolled the waters of the Rio del Norte, which are here bordered by groves of large cotton wood trees. In the back ground, about 10 miles to the westward, rises a range of lofty peaks, some 1,000 feet in

height, and still farther west, some 20 or 25 miles distant, rise still loftier peaks, to the height of 3 or 4,000 feet, their tops covered with snow. The midday sun is quite bot, notwithstanding our vicinity to snow capped mountains, and notwithstanding the severe frosts which nightly cover the ground, making the mornings bitter cold.

The rocks that strew our road are volcanic, a vesicular stone of dark purple color and hard as adamant.

We had a very long, steep, and sandy hill to climb this morning just as we left "Joyita," and we were stopped by another. It would be advisable for any one travelling with wagons to cross at Albuquerque, and keep down the river on the west side until reaching Valverde, where, I have been informed, the crossing is very good.

We noticed to day numbers of the red-winged flickers, "Picus Mexicanus," and the meadow lark, "sturnella neglecta;" the latter bird was whistling as cheerfully as if it had no idea of the approach of cold winter.

November 10.—The severe frost of last night made a good fire very desirable, and the abundance of cotton wood all around our camp made the attainment of this desirable object very easy; the sound of our axes resounded through the groves, the men gaining, by their labor, warmth and wood, and soon a mountain heap of dry logs was crackling in the flames. We now despatch our breakfast, strike tents, and clamber over the hill that overlooks Socorro; descending this hill, we encamped on the west side of a little "bayou," having gone only 1½ mile. On the road we flushed several large flocks of quails. They happened to be at the foot of a high, perpendicular bank, when they rose up on wing until they reached the top, and then, alighting, scampered off with great rapidity. They had crests on their heads, and differed in color from the quail of the United States.

We encamped within sight of the train belonging to Mr. Mc-Goffin; there were forty large Conestoga wagons in this train and a due proportion of men.

To-day we saw some Mexicans hoeing in wheat. It required 15 men a whole day to accomplish what could have been done by a burro" attached to a harrow, in a few hours.

In the afternoon I went out to procure some of the quails we noticed this morning, but could not find any of them. I, however, got some of the spiral pericarps of the "prosopis odorata," or, as it is named by the Mexicans, the "tornilla;" also the mistletoe that grows so abundantly upon the cotton wood, and is called, "bayote del alamo." The cockle burr and sand burr are very abundant, so much so, as to annoy us by sticking fast to our clothing and blankets; and our mules got their manes and tails so clogged as to be but masses of cockle burrs.

November 11.—This morning we started off in hopes of being able to cross the river and go down on the opposite side. At two of the fords we could not have crossed without getting our provisions and bedding wet. At last we found a good crossing a short

distance above the town, but as the prospect of obtaining wood and grass on the other side was not very favorable, we concluded to camp directly in front of Socorro. I paid the alcalde a visit. He showed me his vineyard; each vine was heaped around with a pile of earth between two and three feet high, and the vines trimmed nearly off even with the top of the hills. The alcalde gave me some specimens of the lead and silver ores of the mines of that sierra which is nearest to Socorro, and said that in the same vicinity there are found gold, silver, copper, and lead. He also told me that Don Pedro Baca, of Manzano, once worked these mines, but that the quicksilver necessary for the amalgam costs \$3 by the ounce, while at Manzano they obtain it from the mine with other metals.\*

Socorro contains about 2,000 inhabitants, and is one of the largest towns we have yet seen, except Santa Fé. While walking through the streets I saw a party of Apache Indians quietly trading with the people, and was told that since General Kearny's coming here, and making a treaty with the Apaches, these Indians had behaved very well.

In the evening I got a fine specimen of the red-winged flicker, "Picus Mexicanus," also a creeper, "Picus querulus," which is called by the Mexicans the carpentéro, from its habit of chipping away at old trees.

November 12 .- We are still without any information from below, but determined to move on slowly. We therefore packed up all our property and were very early on the road. After passing through the little town of "Las Cañas," we encountered another hill of sand, very difficult of ascent, and after we reached the top we commenced the descent through a crooked ravine that was strewed with fragments of rock. On the way we saw several flocks of crested quails; they were running along with great rapidity among the clumps of the "kreosote plant." We procured one of them; at the report of the gun only three or four rose up; they seem to depend more on their fleetness of foot than swiftness of wing. This bird proved to be the "Ortix squamosa," and has been figured and described in "Gould's Monograph of the partridges of America." The plumage is of a soft silvery grey, the iris hazle, and the crest fringed with white. The size, contour, and general character greatly resemble the common quail, "O. Virginianus." On opening the stomach, I found it filled with grass seeds and green insects of the genus "hemiptera."

We encamped about half a mile south of "Bosquecito," close by some large cotton-wood trees, overgrown with bunches of misletoe, still looking green and fresh, while the foliage of the tree was withered with the winters' frost.

In the evening we saw, on the opposite side of the river, the companies of Captains Burgwin and Grier, on their return to Albuquerque. Lieutenant McIlvane came over the river, and from him I learned that Captain Grier, with Lieutenant Wilson and two

<sup>\*</sup> None of the ores that I obtained at Manzano contained quicksilver; still the people of Manzano agree with this alcalde in their statements.

men, had had a fight with a party of Navajoe Indians. It appears that while the companies were on their march down the river, some Mexicans rushed hurriedly up to them, crying out that the Navajoes had just been into the village, murdering the people, and carrying off their flocks and herds. Captain Grier immediately set off in pursuit, and soon came in sight of the bold marauders. In a little while the Indians began to abandon the cattle they were driving off, until at last 400 head had been left along the route. So warm and exciting was the chase, that the officers, who were well mounted, heeded not the want of their men who were unable to keep pace with them, but they pressed on, anxious to recover the immense "cavalgada" of sheep that the Indians were yet driving. Suddenly they saw they had rushed into an ambuscade, for the Indians, rising up from their concealment, surrounded Captain Grier and his three brave companions. With horrid cries and shouts of "Navahoe, Navahoe," the Indians sprang forward to the combat; they were dressed for war, being ornamented with paints and plumes, and mounted on good horses, and armed with bows and arrows, and lances; but, fortunately, they were so crowded that they feared lest they should shoot each other. At length one of the chiefs came along side of Lieutenant Wilson; their horses were on the gallop, each one waiting until the horses should jump together, when, at the same moment, Lieutenant Wilson and the Indian fired; the officer's pistol did not go off, and the arrow of the chief only cut off a coat button, and lodged in the saddle blanket of Captain Grier. As the Indian turned his horse, a Mexican, who had started at full speed, came in contact with him, and rolled horse and rider in the dust; the Indian was immediately upon his feet, and rushed up to a dragoon soldier, who had a patent carbine, such as loaded at the breach, and had, unseen by the Indian, reloaded it, and the Indian coming up within two or three feet, the soldier shot him dead. One other Indian was killed, when Captain Grier ordered a retreat, and the four, drawing their sabres, cut their way out and rejoined their company, while the Navajoes succeeded in carrying off 3,000 head of sheep.

Lieutenant Wilson was again fortunate; being out on a patrole he captured a courier with letters to Chihuahua, which had been written by some of the principal men in New Mexico, and manifested a spirit of readiness for any insurrectionary movement.

November 13.—This morning I crossed the river at "Bosquecito," and went to the encampment of the dragoons. Captain Burgwin informed me that the traders were well prepared to defend themselves in case of an attack; that they had constructed quite a formidable fort of wagons at Valverde, and that the country in the vicinity of their camp afforded plenty of wood and grass, and, I therefore, determined to move down the river on the next morning.

November 14.—The day proving very favorable, we made a much longer march than we had at first intended, as we proceeded at least 10 miles below San Pedro, which place is 4½ miles south of Bosquecito. The road for many miles, in the latter part of our march, was covered with a deposite of saline substances, which lay like



new fallen snow, and made an unpleasant glare, such as completely dazzled our eyes. We got some golden-winged woodpeckers and butcher birds, "lanins borealis," besides killing two large swans, "eygnus Americanus," that proved to be very fat. We encamped at "Bosque del Apache," far to the south of the last inhabited town that we shall see north of the Jornada del Muerto.

November 15.—Before the sun had risen, we were travelling on our journey, and soon reached the celebrated valley of Valverde. We now came in sight of the camp of traders. We found assembled here many gentlemen whom we had formerly met, and our happy feelings at greeting them in this wild country were heartily reciprocated. We camped close along side of them.

During the day a man entered camp, purporting to be a messenger from Captain Cook, and stating that Captain Cook, finding his men and animals failing, and his provisions giving out, had changed his destination, and would now make a descent upon "El Paso." We were glad to hear this, as it was the people at that place who had made several demonstrations of attacking us here. But there was something about the man that excited suspicion, and the traders refused to furnish him with the mules which he said were necessary to enable him to carry on Captain Cook's letters asking for reinforcements. This man showed sealed letters from Captain C. directed to Captain Burgwin, but, notwithstanding, his whole story was an unprincipled fabrication, as we afterwards learned.

The traders will suffer great losses on account of our difficulties. Every pound of freight brought to Chihuahua costs 18 cents; if stopped at Santa Fé, 9 cents; and all here say that if the duties of \$1,000 a wagon load have to be paid they will lose everything.

November 16.—We were all scant of provisions. The traders have been at this place for the last forty days, and in that time have consumed their provisions, for they made no arrangements for such a prolonged stay. Common sugar and coffee cannot be had for less than 50 cents the pound, and beeves sell for \$20 the head. To employ our time, we went out gunning and killed a loon, "colymbus glacialis;" several ducks, 'anas merganser." On our return, we saw a fine bald-headed eagle that was sitting on a bar in the middle of the Rio del Norte. We hailed it as an emblem of our victorious banner, which bears this bold bird on its folds.

November 17.—This morning I started for Socorro to procure corn for our mules. The "grama" is not sufficiently nourishing for animals that have been laboring hard. We had rumors to-day that the American traders in Chihuahua were allowed perfect liberty, except Mr. McGoffin and Señor Gonzales; that goods are bringing 37½ cents per vara, which is one-third more than many persons here are ready to sell for.

November 18.—During the morning, we walked over the ruins of Valverde. They were inhabited in 1820 and 1825, but constant depredations of the Apaches and Navajoes forced the people to desert their village. Nothing now remains but the ruins of some adobe walls, over which stillness reigns. I took a sketch of the