

ANNUAL REPORT
OF THE
SECRETARY OF WAR

FOR

THE YEAR 1878.



VOLUME II.
PART III.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1878.

SECTION II.—WAGON-ROADS.

Of the Lower San Juan the seat of the largest population is the Animas Park, containing thousands of acres of tillable land susceptible of easy irrigation. Above this, however, and beyond the grand cañon of the river lies the largest populated region of the entire country and the seat of its greatest mineral wealth.

Silverton, upon the Animas, and other towns and contiguous mining camps, may be reached from the railroad and Del Norte directly by following up the valley of the Rio Grande and crossing the mountain-range that forms the divide between the waters of that and the Animas; more indirectly, by reaching the lower country and the Animas, and thence passing up the cañon of the river.

As the lower country is the least favored with respect to enter communication, it may be well to first consider it. Hemmed in upon the north and east, which, with outlying spurs that contain many peaks of great altitude and few practicable or natural passes, the summits of the mountain-chain lie approximately in the arc of a circle with Pagosa Springs nearly at the center. It is, moreover, south of the position of Garland City but 11 miles, being about 100 miles west thereof. From the railroad terminus all roads to the lower country at present have a common point, viz, the crossing of the Chama at the plaza of Los Ojos, one of the villages of the Tierra Amarilla section, whence the main-traveled line, known as the "Upper road," passes to the Animas, via Pagosa Springs. While the distance to the Animas is greater by this than by the route called the "Middle road," which, passing by the Laguna de los Caballos, Piedras de Leguados, and the Cañon Curaçon, to the San Juan below the mouth of the Sarajo, and crossing the Rio Piedra and Rio de los Pinos, unites with the upper road on the Rio Florida; it is preferable to the latter, on account of more frequent water and the fine grazing along the route, timber being everywhere abundant. Hence, from its natural position and the relative points of supply, Pagosa becomes a strategic point, and the line which will easiest and quickest enable travel to reach it will, and in fact must, become the popular and frequented route.

The Rio Grande River, which emerges from the mountains at Del Norte, taking a southeasterly course through the San Luis Valley, is, during most of the year, easily passed, being fordable with but little difficulty at a number of points from Del Norte south. Like all streams, however, that spring from lofty summits in the main range and are fed by banks of eternal snow, it is subject to great increase in its waters during the spring months of the year. The small brooks become roaring rivers, and with difficulty are crossed, where earlier and later the passage may be a matter of no difficulty. At such times the Rio Grande is a formidable barrier, and can be crossed only by bridge or ferry. A few miles below Del Norte a bridge over the river secures travel of all kinds from any interruption at all seasons, while that below, bound southwest, finds passage during high stages of water in one of two ferries that are located on the lines of travel.

The lower country.

GARLAND TO CONEJOS.

From Garland City to Conejos and the southwest two routes are optional. The first, in a general southwesterly course north and not far from the Rio Trinchera, crosses the Rio Grande just above its mouth, at a distance of 19½ miles from Fort Garland and 26 miles from Garland City. Thence it continues some 26½ miles due southwesterly along the north bank of the Rio Conejos, a tributary of the Rio Grande, with its mouth a mile below the Trinchera, reaching the plaza of Conejos at a distance from the railroad of 52½ miles.

Part of the way on this route another road may be taken by crossing the Trinchera a few miles below Fort Garland and continuing south of, and near it, about as far distant as the former above. It reaches the Rio Grande at the mouth of the Conejos, whence, passing due west, it comes into the other road at a distance of 4 miles. While no appreciable distance is saved by this route, its only advantage ordinarily being,

perhaps, a preferable ford to the one at Stewart's, it, like other points, presents no crossing-place over the Rio Grande during high-water seasons and hence will not be considered.

The second route from Garland City passes a little west of south to the Rio Culebra, crossing it at Mexican plaza of Lower Culebra; thence southwest to the Rio Grande, where is the ferry formerly kept by Mr. Fred. Meyer, now in the hands of Señor Valdez, 39½ miles from Garland City, 33 from the fort; thence the road passes due west to Conejos, 18 miles distant, and 57½ from the railroad. Both roads lie wholly in San Luis Valley and are natural ones, as easy in traveling and as hard as the ordinary prairie, save in a few places where they are heavy from shifting sands, a belt of which extends over the valley.

In June, while in that section, a whirlwind would here or there keep in sight almost constantly a cloud of sand, and as they occasionally passed, they shut out completely earth and sky, filling eyes and ears, taking along hats and other movables if possible—happily a brief visitor, leaving as a souvenir a fine stratum of sand. The height to which these moving, flying pillars rose, seemingly gathering strength as they whirled along, was very great. The other variation to the usual monotony and far more agreeable were the occurrences of mirages, which were noticed almost daily while traveling over these level surfaces. Trees lining the banks of streams far away would be uplifted from beneath the horizon, and before us lay spread out a lovely sea or huge lake whose distant shores were hemmed in by luxurious vegetation, only to fade away as we approached, a never-resting will-o'-the-wisp, in whose place were found the burning sands of the plain.

Stewart's Ferry.—The approach to the Rio Grande on the upper or Trinchera road is over low ground. During the high-water season the river reaches back for some distance upon either side, and with its diurnal fall and rise the ground, at other seasons hard and dry, is changed to a marsh, and easy access to and from the river-ferry is for heavy teams often quite problematical.

In our crossing the ferry in June last, one of the wagons of the train, in the detour which is selected as the best approach upon the eastern bank, mired twice in the boggy ground, and caused a delay of two hours; upon the opposite shore another long and tedious delay resulted, the road being two feet under water, necessitating unloading by hand in water above the knees. There is a bend in the course of the river just above the ferry, and as the ground here rises but slowly from the stream outward, it is at the best a faulty location for such a purpose.

The river was then about 150 feet in width, with a very rapid current. The ferry-boat, rather a small affair, about 20 feet in length, barely held an army wagon and the wheel span of the team; a flimsy rail was along each side, protection chiefly in appearance, each mule requiring holding during the passage. In taking over the cavalry escort, the horses were led on the boat, heads alternating up and down stream, to equalize the load, which was limited to eight. A crossing with horses only was made in eight minutes, and four six-mule wagons, including the teams, were ferried over safely in one and a quarter hours. A small pier or planking of some kind was lacking, nothing of service in the nature of gangway being provided. The rates charged were, for single horsemen, 50 cents; light wagons, \$1.25; two-horse wagons, \$1.50; and four-horse wagons, \$1.75. The ferrage was, however, reduced in consequence of the size of the party to 25 cents per animal, riding and team, with no charge for wagons. The more direct and better road, as before stated, is up the course of the Conejos River, above and skirting the edge of the plain, always high and dry; it is, however, nearly barren of grazing, in need of which the command took a left-hand road at a distance of about 12 miles from the ferry; this passes over what is known as the Island, a long point of land included between the San Antonio and Conejos Rivers, across which, during high water, flows a net-work of small streams, rendering it the best watered and most fertile land in this section; it is, without doubt, the garden-spot of the entire valleys of the two rivers, and would be literally "flowing with milk and honey," were it in the hand of eastern farmers instead of those of Mexico, whose ambition is generally satisfied with cigarettes and a "haile."

The Conejos was crossed at the plaza of Los Cerritos, "the Hilla," taking the name from some high hills that are grouped near by, whence the road soon passed into that from Chavez's Ferry to Conejos.

The passage of the Conejos was made without loss, though not without difficulty; the stream high and rapid, with about a six-mile current, was in the beds of the rivers, and one of the team-mules falling in the river and becoming entangled in the harness, was with difficulty saved from drowning. From the appearance of the banks at 1 o'clock p. m., it was evident that the water had very lately fallen fully a foot.

Valdez' Ferry.—The ferry on the lower road differs in location, &c., materially from that above. It is in a direct line 18 miles south of it; by the windings of the river about twice as much; a trail leading down from the upper ferry, which is called by the Mexicans but 12 miles. This ferry, formerly known as Myer's Ferry, and described in 1874 as a "dilapidated affair," was purchased from Mr. Myer in the spring of 1875,

by Señor Caledonia Valdez, the present owner, for \$450. The boat sunk in the following fall, and last spring it was replaced by the present one, very serviceable and greatly superior to Stewart's. It is about 45 feet long and 12 in width, and strongly constructed of stout timbers. A strong side-railing is provided, and a small row-boat is in tow, for a possible necessity, certainly a wise precaution; for the river in June was here 10 feet in depth and about 250 feet in width. The cable is firmly held upon strong piles about a foot in diameter, with heavy triangular braces, thence passing over a windlass to the rear. The crossing with a load was made in four minutes. The charges are about the same as at Stewart's; its capacity greater. The owner reported that at a single crossing they had carried 400 sheep, the charge for the trip being \$2. In its location this ferry has, furthermore, an advantage over its rival. The river is here about 25 feet below the general surface of the plain, and as the road descends gradually and easily, no possible miring of teams can occur. A short distance below this point the Rio Grande enters its long cañon, which increases in depth southward, the lava sides vertical or piled with sharp-edged rock, perfectly impassable, and a veritable scene of desolation in nature.

To the San Antonio River, *en route* to Conejos from the ferry, the road is a magnificent natural one, fine, hard, and level; on the way, upon either side, some two or three miles off, rise rounded hills with sandstone strata, on which lay the cold, volcanic rocks, blessed with but little timber, and that but a poor piñon, with an occasional cedar, the only kind that will befriend so dismal, inhospitable a surface. Lava rocks lie strewn along the bases of the hills and out over the plain everywhere, its hot and parched surface relieved only by an occasional breeze from the mountains to the west. Its vegetation is exceedingly sparse, almost nothing save sage-brush and a few cacti breaking the monotony. No grazing can be found at or near the ferry, nor on the lower road to any extent beyond the crossing of the Trinchera, until the San Antonio is reached. The latter was found very high and the ordinary ford impracticable, necessitating our crossing a mile lower down.

Of the two routes from Garland to Conejos, the upper or Trinchera is preferable. Its chief disadvantage is the inferior condition, in addition to low approaches of Stewart's ferry as compared with that of Chavez, the latter as a crossing being greatly preferable. The upper route has, however, several advantages over the lower not to be lost sight of, which are mainly—

- 1st. It is considerably shorter.
- 2d. Its hard surface or natural road, save a small sandy portion, less than half of that on the other.
- 3d. Wood, water, and sufficient grazing for convenient camping places at no long intervals, the Conejos being timbered with cottonwood.
- 4th. Except the Rio Grande, but a single stream of any importance to be crossed, the Rio Conejos at the plaza of Conejos (or Guadalupe), while on the lower road are the Trinchera and Culebra east of the Rio Grande, and the San Antonio on the west. By one route a bridge is essential for the Conejos, by the other for the passage of the San Antonio. At the plaza of Conejos the river was formerly passed by a bridge which was, they there informed me, washed away in 1874. After numerous resolutions to replace it, the citizens have let the matter drop, and teams now find their way over as best they may. At the town, fortunately, there is a spot where the river broadens to over three times its usual width, so that generally a passage may be found. The river here is about 200 yards and the approaches low, so that a slight rise in the water materially increases the difficulties of passage. A superior location may be found not far distant and the river bridged at a cost not exceeding \$1,300.

ERRATA.

[Appendix S S. Annual Report of the Chief of Engineers, 1878.]

- Page 1787, line 5, for "at Mexican" read "at the Mexican."
 Page 1787, line 11 from bottom, for "Chavez's" read "Valdez."
 Page 1787, line 9 from bottom, for "rivers" read "wagons."
 Page 1788, line 1, for "Caledonia" read "Celedonia."
 Page 1788, line 31, for "Chavez" read "Valdez."

