

THE MOUNTAIN TRAIN.

TOILING slowly up steep and tortuous mountain grades, and as slowly winding down again, with brakes set and wheels locked together, the mountain train may be seen by any one who visits the mining regions of the West. Time was when the stage and the freighter's wagons were the only means of conveyance of passengers and goods throughout the entire Pacific coast, save where the Columbia, Snake, Willamette and Sacramento rivers offered routes for steamboats, or where, no roads having been made into mountain fastnesses or thinly settled districts, the patient pack mule formed the connecting commercial link with some base of supplies along the more traveled routes. Although, like the once ubiquitous stage, the freight wagon has been pushed further and further into the interior, and superseded completely in many places, by the steady encroachments of the railway, there are yet many localities where it holds undisputed sway, the stay and dependence of hundreds of mining camps and remote settlements. Grant, Lake and Klamath counties in Oregon, are entirely dependent upon them, also Northern California and that portion of the state lying in the Sierra Nevada mountains. Idaho yet finds them her main reliance, and in Montana they are the only means of transportation for goods to the mining camps and towns lying at a distance from the two lines of railway which traverse the territory. In the same way Nevada, Utah, Colorado, New Mexico and Arizona find commercial life closely linked with the crack of the stage driver's whip and the jingle of the freighter's bells.

The mountain train generally consists of from two to five wagons secured together in succession from the largest to the smallest, and drawn by from four to ten spans of horses or mules, or both. The driver sometimes walks and sometimes rides one of the wheel animals, where he can guide the leaders with a long rein, and at the same time set the brakes on all the wagons by an attachment to the forward one within reach of his hand. Generally the driver has one or more assistants, or several train teams travel together, so they may lend mutual aid in many of the difficulties that arise, while at night, when, as is often the case, they are compelled to go into camp, they can find pleasant companionship while they drink their coffee and smoke their evening pipes. A glance at the construction of the wagons, especially the large one in front, will show what an enormous capacity for freight they possess, and if one could peep under the canvas cover so closely strapped down to protect the load from dust, which at times hangs in a dense cloud about the train, he would discover every article of merchandise not too bulky for transportation. Pianos, safes, milling machinery of the heaviest kind, in fact everything of sufficient value to bear the expense, is carried in this way often a distance of two hundred miles, and in the early days, a trip of five hundred miles by "prairie schooner," as the large white-topped wagons

are often called, was not uncommon. Such trips were made from Chico to the Idaho mines, from Walla Walla to Blackfoot and Deer Lodge, and of late years from Boise and Wood river mines to Kelton and Winnemucca, on the Central Pacific. The expense of thus transporting goods often reaches five, and even ten, cents per pound, which is promptly doubled by the merchant and added to the price of the goods.

Often the leaders of a mule train are decorated with a set of bells, whose constant jingling give notice of their approach, so that parties traveling the grade in an opposite direction may take warning and stop at one of the numerous "turn-outs," or "wait-a-bits," as they used to be called in Yankeeland, in order to allow them room to pass. If this is not done it may result in an awkward meeting at some point where the road is too narrow to admit of passage, with a face of solid rock on one hand and a steep precipice on the other. Such a meeting is devoid of charm, even for the best of friends. It is well for one who has reached the summit of a mountain grade to inspect the road ahead before beginning the descent; otherwise he may find himself in a predicament, in juxtaposition with the long-eared leaders of a mule train. Even if the grade be so tortuous that he can see but little of it at a time, a glance at the foot may reveal a wagon or two standing without mules, indicating that the team is somewhere on the grade with the other wagons. This is often the case, since on steep and winding grades the driver is unable to handle the whole train at once, and is compelled to make two or three trips with a portion of his train, both in ascending and descending. Though climbing the mountains is laborious and tedious, the engineer of the mule train no doubt prefers it to that portion of his route which lies across the sage brush and alkali plains, where eyes, nose, mouth and ears become filled with irritating dust, and man, animals and wagons bear one unvaried hue of powdered earth.

 LEAD PENCILS.

There was a time when a spiracle of lead, cut from the bar or sheet, sufficed to make marks on white paper or some rougher material. The name of lead pencil came from the old notion that the products of the Cumberland mines were lead instead of plumbago, or graphite, a carbonite of iron capable of leaving a lead-colored mark. With the original lead pencil the wetting was a necessary preliminary of writing. The lead pencil is now adapted, by numbers or letters, to each particular design. There are grades of hardness from the pencil that may be sharpened to a needle-like point to one that makes a broad mark. These gradations are made by taking the original carbonate and grinding it and mixing it with a fine quality of clay, in differing proportions, regard being had to the use to be made of the pencil. The thoroughly mixed mass is squeezed through dies to form and size it, is dried, and encased in its wooden envelope.