The Use of the Bleichert Aerial Tramway in Utah

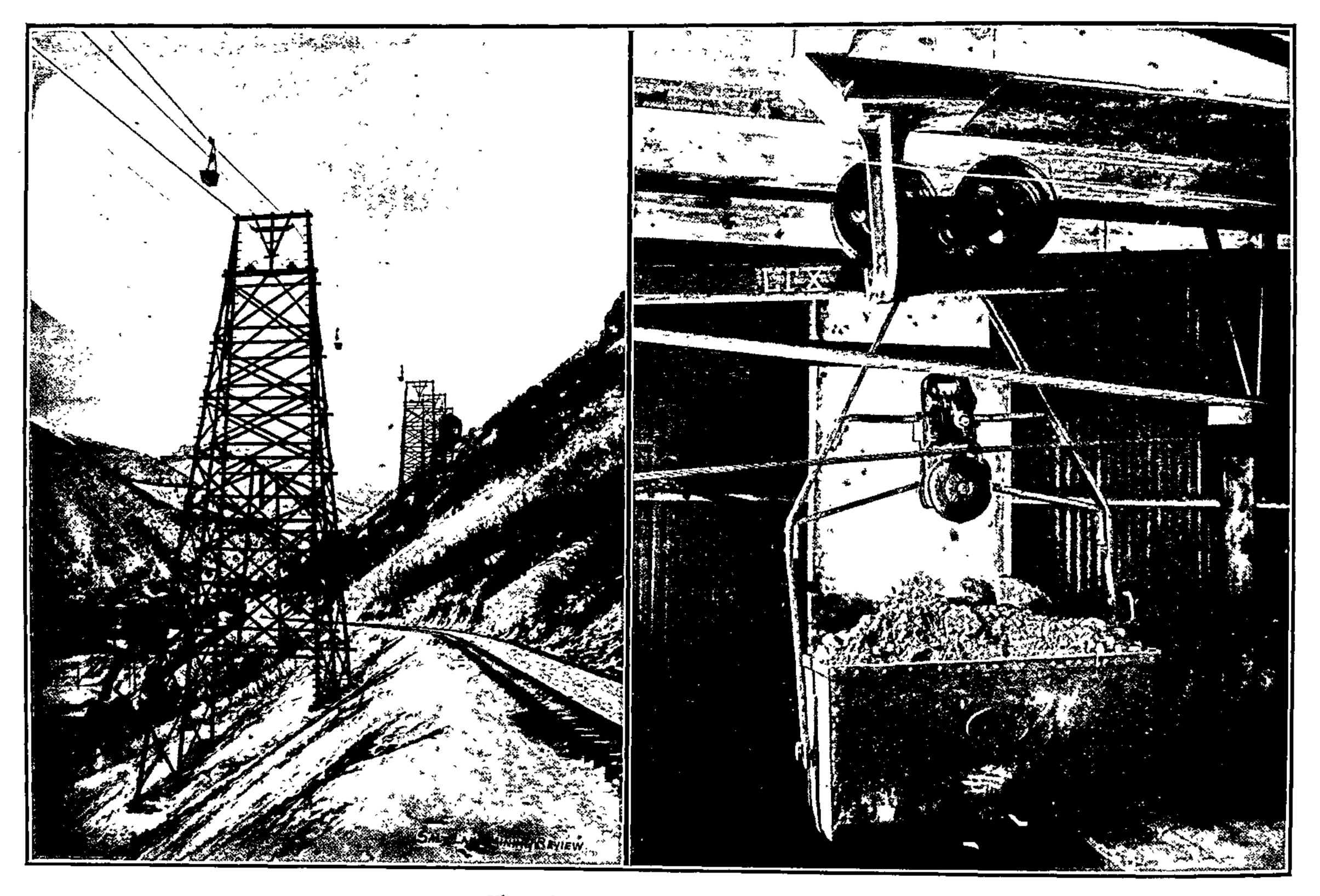
The use of the aerial tramway has long been recognized as a most ideal way of transporting materials, and especially in mining communities has its utility become general. For the economical carrying of ores from mine to mill, or railroad centers, the tram is almost indispensable and this method has many advantages over the wagon haul and other means of transportation.

There are several important tramways

tion which the manufacturers claim easily make it the best on the market. The first difference pointed out is the patent lockedcoil track cable. The cable is so constructed that each strand is firmly locked to its fellow, allowing no play and adding greatly to the strength and rigidity of the rope. The outer strands are flat, giving a smooth surface and the appearance of a solid steel bar. The second typical feature of the about 20 per cent higher than most other makes, but it is claimed that operating expenses are fully 25 per cent lower and repairs and maintenance at least 50 per cent less. It has been found that this tram will carry more, by from 25 to 50 per cent, than their rated capacity.

Bleichert Tramways in Utah.

There are four Bleichert trams at Bingham, Utah, the oldest being that at the



Views of Yampa Tramway, Bingham, Utah.

Ninety-Foot Tower, Showing Buckets in Transit Along Line.

Showing Loaded Bucket With Patent Friction Grip and Running Gear.

in Utah, but we shall mention only those of the Bleichert type, constructed by the Trenton Iron company, of Trenton, N. J., for whom Jones & Jacobs, the well-known Salt Lake engineers and contractors, are the local representatives.

The Bleichert system of wire rope tramways is the production of a German inventor of that name, who is now building them in Europe and where they find more general use than any other make of tram. The fundamental idea, that of carrying loaded buckets on wire cables, is essentially the same in all makes. The Bleichert, however, has minor details in construction and operaBleichert is the patent friction grip. This device is attached to every bucket and so firmly grips the cable that there is no possibility of slipping. It also distributes the wear on the traction cable, an advtange over several other makes using other devices.

The third detail contributing toward the efficiency of the Bleichert tramway is the automatic fastener for the buckets. This is constructed so that the bucket is absolutely immovable when the clamp is down. A very simple: operation releases the bucket from the grip, allowing a much higher speed and less wear on the rope.

The Bleichert in initial cost averages

Highland Boy mine, which has been in operation for over ten years and which has established the best record of any tramway in the United States. Over 1,000,000 tons of ore has been carried over this line on a single running rope, a record unequalled in the country. The line is over two miles long and was built for a capacity of 200 tons daily, or twenty tons an hour, but it is regularly carrying forty-five tons hourly. The Yampa tram is the latest of this type

to be built in Bingham. It extends from the mine, in Carr Fork, to the Yampa smelter below the railroad station, a distance of two and a quarter miles. The tram is run by

gravity and was built for a capacity of sixty tons an hour but easily handles seventy-five. There are twenty-three towers and four tension stations along the line, ranging from twelve to ninety feet in heighth. The rope runs at the rate of 380 feet per minute, carrying buckets stationed 290 feet apart, each one capable of transporting 1,200 pounds. The longest span is about 1,050 feet.

The United States tram is two and a quarter miles long, with a capacity of fifty tons hourly. It has a single span of 1,700 feet and is connected with a shorter tram above, the buckets being transferred without reloading. The Utah Apex has the shortest tram in the camp, this being about one mile long and having a capacity of ten tons hourly. This is now being increased to fifteen tons.

In the Tintic district of Utah are two Bleichert trams, one being at the Grand Central mine and the other at the Centennial-Eureka. Both are short distance trams, the former being only seven-eighths of a mile in length and the latter only 1,700 feet. The capacity of the Grand Central line is twenty tons hourly. The Centennial-Eureka line was originally built for twelve and one-half tons, but was later increased to twenty and is regularly handling from thirty to thirtyfive. The use of the tram is not restricted to carrying ore. Other materials, such as supplies, coal, etc., can be transported to the mine at no expense at all. At the Tintic properties mentioned, coal elevators have been installed at the lower terminals of the trams and the fuel carried to the mine and dumped at the boilers without rehandling. The latest Bleichert tram to be erected in Utah is that for the Parleys' Canyon Lime and Stone company, operating quarries near the head of Parleys' canyon. This line is the heaviest in the state, having an hourly capacity of sixty-two and one-half tons. It is one mile long, with a drop of 1,200 feet. The longest span is 900 feet and the buckets each carry 1,500 pounds. In the San Juan triangle, Colorado, the Trenton people have thirty-six trams in operation, with a daily capacity of 5,500 tons, as compared to one of other make, with a capacity of 150 tons daily.

Longest Tram in World.

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The longest tram in the world is a Bleichert and was built for the Argentine government. It is twenty-two and one-half miles long and makes a drop of 11,000 feet. There are single spans up to one-half mile in length, and it takes four hours for a bucket to make the trip over the line.