

SOOKE LAKE PIPE LINE SUCCESSFULLY OPERATES THROUGH A HARD WINTER.

THIS pipe line was built in order to utilize Sooke Lake as a water supply for Victoria, B.C. The contract for the construction of the line was awarded to the Pacific Lock Joint Pipe Company, and the contractors, having the necessary forms on hand for a 42-inch pipe, agreed to put in a 42-inch pipe instead of a 40-inch pipe, as had been suggested by the engineers. The pipe was made of a shell 3 inches in thickness and in 4-foot lengths, except the pipe for syphons, which was more heavily reinforced, the shell being 4 inches thick.

In *The Canadian Engineer* for November 18th, 1915, there was published an illustrated description of the above work as presented before the American Society of Municipal Improvements by Mr. C. H. Rust, the city engineer and water commissioner of Victoria, B.C.

As a piece of municipal engineering work, this job attracted a great amount of attention, and for this reason



Fig. 1.—Circuitous Route followed Owing to the Rough Nature of the Ground.

we feel that it would be desirable to recapitulate some of the details of this plant, and also to give further information which has been supplied to us by Mr. Rust, this information being of particular interest as it has been secured after the work has successfully weathered the winter storms and the particularly cold temperature which prevailed on the Pacific Coast last winter. After nine months of operation the Sooke Lake pipe line emerges victoriously in that no material damage has been done during its first months of actual operation. This is all the more remarkable when it is stated that Vancouver Island has, during the past winter, experienced the coldest weather it has ever known, so far as the recollection of the oldest inhabitant goes. It went as low as 12° below freezing. Luckily, however, the snow was excessive, which probably protected some of the work to a greater or lesser extent.

Owing to the deep snow it was difficult for the patrol men to keep up communication and they suffered a good

deal of hardship in getting in supplies. The only damage done to the pipe was occasioned by a small slide which, however, was not serious. Nearly the whole length of

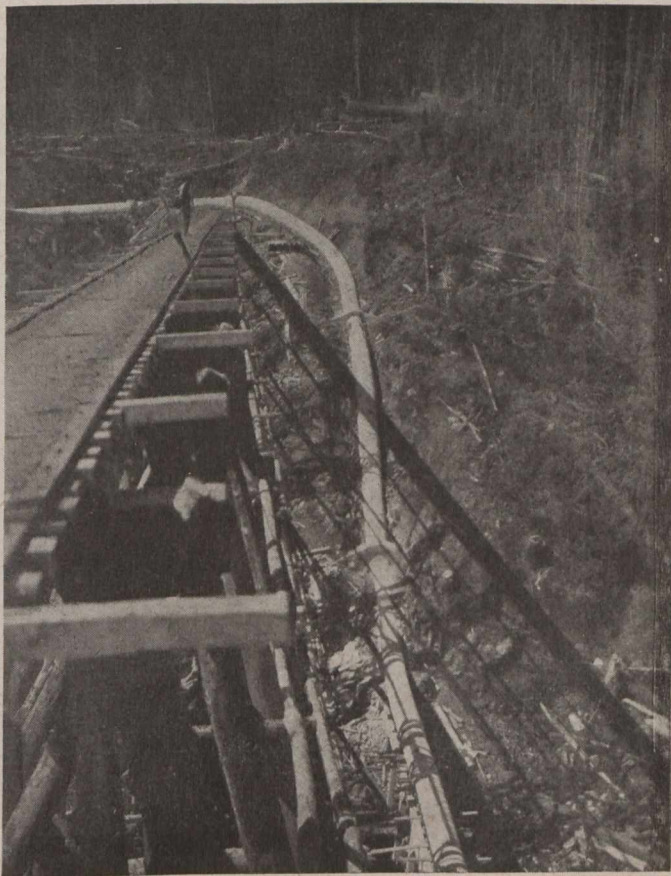


Fig. 2.—Construction Railway Trestle and Syphon Over Ravine.

the pipe, which is $27\frac{1}{2}$ miles long, is laid on the side of a mountain and of the total length of pipe 55 per cent. is in curve; the longest tangent being 600 feet. This will give some idea of the difficulty of the construction work, not only from the point of view of alignment, but from the point of view of the contractor, who had to transport



Fig. 3.—View Showing Rough Nature of Ground Over which Pipe Line was Constructed.