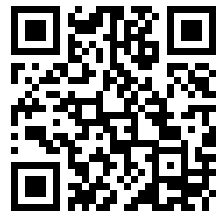

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THE BRIDGEMEN'S MAGAZINE



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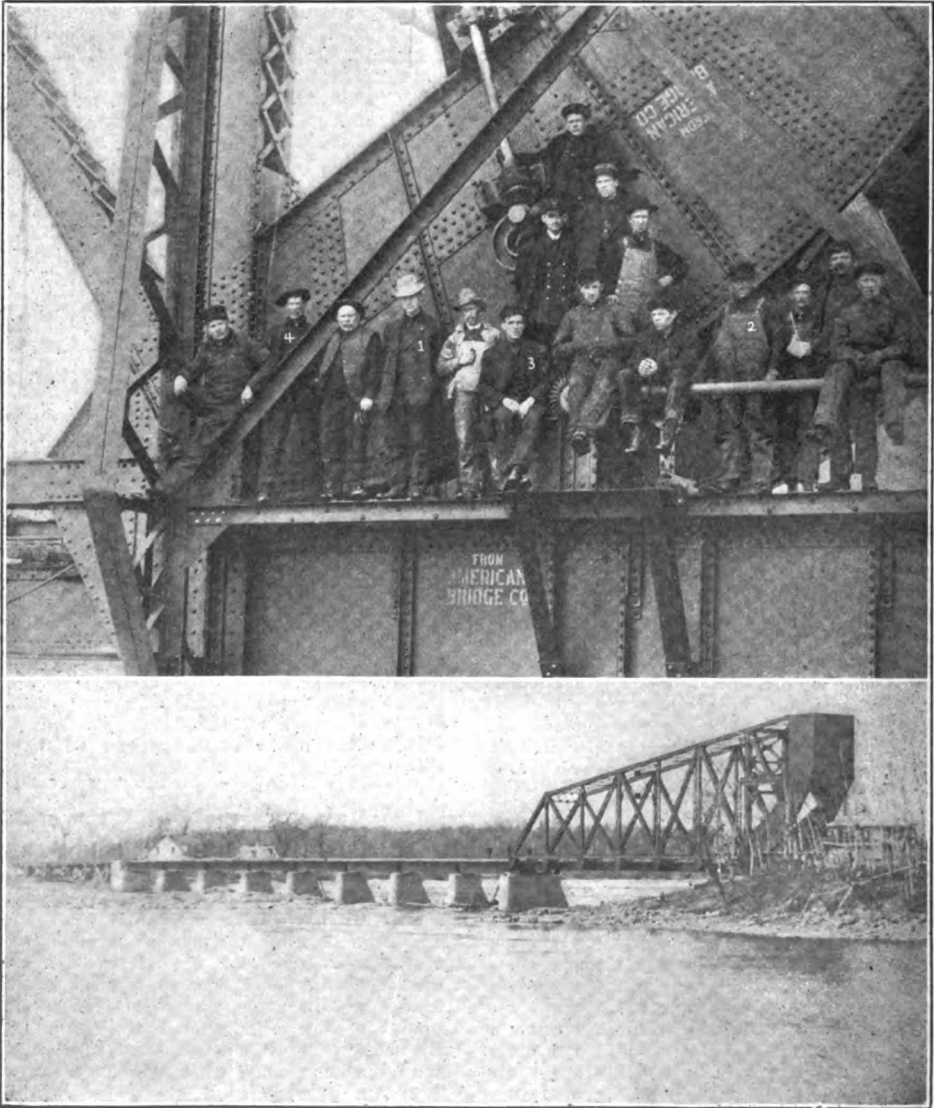
Virginia City, Minn.

Editor Bridgemen's Magazine:

At Pithers Point, Ranier, another steel link is being forged on the international boundary lines of Minnesota and Ontario, Canada. Late last fall saw the road in operation to the border and the work of erecting the piers commencing. Today is to be seen a splendid modern steel bridge that has just been completed across the Rainey River at its very source. It is another connecting link of the two countries of North America and by means of it one more great International trunk railway line system is opened up.

The completion of the bridge is of particular interest to this part of the country, as it opens up a highway over which many cargoes of human souls, millions of bushels of wheat, the product of our great forests, and the wealth of our mines in the form of both raw material and the output of mills.

The bridge is not of extraordinary length, being but 541 feet over all and 18 feet in width, but its novel feature makes its construction and method of erection an interesting study for engineers and bridgemen. It is what is known as a Scherzer Rolling Lift Bridge, rolling and lifting



Scherzer Rolling Lift Bridge and Viaduct being erected at Virginia City, Minn., by members of the International Association. (1) Mr. Brack. (2) Bro. Charles Endley. (3) Mr. Jones, Inspector. (4) Bro. Geo. Fitzpatrick. Ketter-Elliott Erection Company, Contractors.



Members of Local No. 3, Pittsburg, Pa., working at Shipperville, Pa., on cantilever bridge for the Lake Shore Railroad. American Contracting Company, contractors.

up for the passage of boats; this span is 132 feet in length and in opening rolls back on the American shore, it being the first span of that side.

The bridge consists of nine spans, one lift span and eight deck spans resting on solid concrete. The lift span weighs approximately 362 tons and its operation is made easy with an overhead counter weight steel box of 150 cubic yards capacity filled with 300 tons of concrete. The span is operated by a 32 horse-power Fairbanks-Morse gasoline engine on the shore, and so nicely is it balanced that three men can operate it with hand power if anything goes wrong. The lift span has many advantageous features, saves considerable room and for this reason it is rapidly superseding all other kinds. It is designed and made by the Scherzer Rolling Lift Bridge Company of Chicago, and erected by the Kettler-Elliott Erection Company of Chicago, with A. C. Kettler superintending, ably assisted by Brother Chas. Endley of Local No. 1 of Chicago and 15 men, mostly of Locals Nos. 1, 19 and 32. They commenced work on the 5th of March and by the 28th of March had all the steel in place ready for traffic. They had to lay a temporary decking as none of the oak decking had arrived from Arkansas.

The principal feature was its method of erection, as this is the first time that this type of bridge has been erected in a closed position. They first placed the track girders, then the rockers, and then the overhead counter-weight box; they then put false work under box and filled box with concrete, after which they erected the rest of the span on cantilever principle, with a 55-foot derrick car.

The boys had a cold snap or two but, considering the country, they had a very good time. They only lost one day through a heavy fall of snow. They took a delight in defying the elements, turning out to work in their shirt sleeves.

We had about 15,000 field rivets to drive. We were furnished with a 28-horsepower Otto gasoline engine and air compressor to do that work. George Fitzpatrick looked after the riveting, and he is as good as ever at his rivet driving stories and others.

We had a Mr. W. Jones, late of Local No. 4 of Toronto, Canada, looking after the work in the interests of the Canadian Northern Railway. He made us toe the mark, too. He had a very narrow escape here, the only accident in sight of bridge. He and a Mr. Brack, U. S. Custom officer here, while trying to shoot the rapids under the bridge, the canoe overturned and both were thrown into the water. Mr. Brack was overcome with the cold and sunk into a whirlpool and was drowned, Mr. Jones got hold of the canoe again and was picked up by two boys in a row boat. The accident caused quite a gloom among the boys as he was very popular among them.

The rest of the work is going along slowly for want of material. Brother Fred Leader is looking after the decking crew and putting a nice finishing touch with his white oak ties and guard rail. It is expected that service over the bridge will be started about April 28, as it is the desire of both roads to inaugurate through service over their lines at the earliest possible date.

Fraternally yours,

BOUNDARY LINE.