No Rocker Bearings nor Steel Castings This Year

Between the Lower Lifting Girders and the Suspended Span—Lower Shoe of Roller Bearing Riveted to Girder While Upper Shoe is Riveted to Span and Key Carries the Load During Lifting

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AS soon as it was definitely established that the collapse of the first suspended span of the Quebec Bridge was due to the failure of the shoe casting at the south-west corner of the span, which transmitted the dead load of the span to the lower supporting girders attached to the lifting chains, the problem of designing a type of bearing which would present all the advantages of the first design and eliminate the objectionable features was taken up by the engineers of the contractor for the superstructure, and also by the engineers on the staff of the Board of Engineers for the Dominion Government.

The functions which a satisfactory design of shoe would have to perform were several and distinct. During the process of erection of the span on falsework at Sillery provision had to be made in these end bearings, not

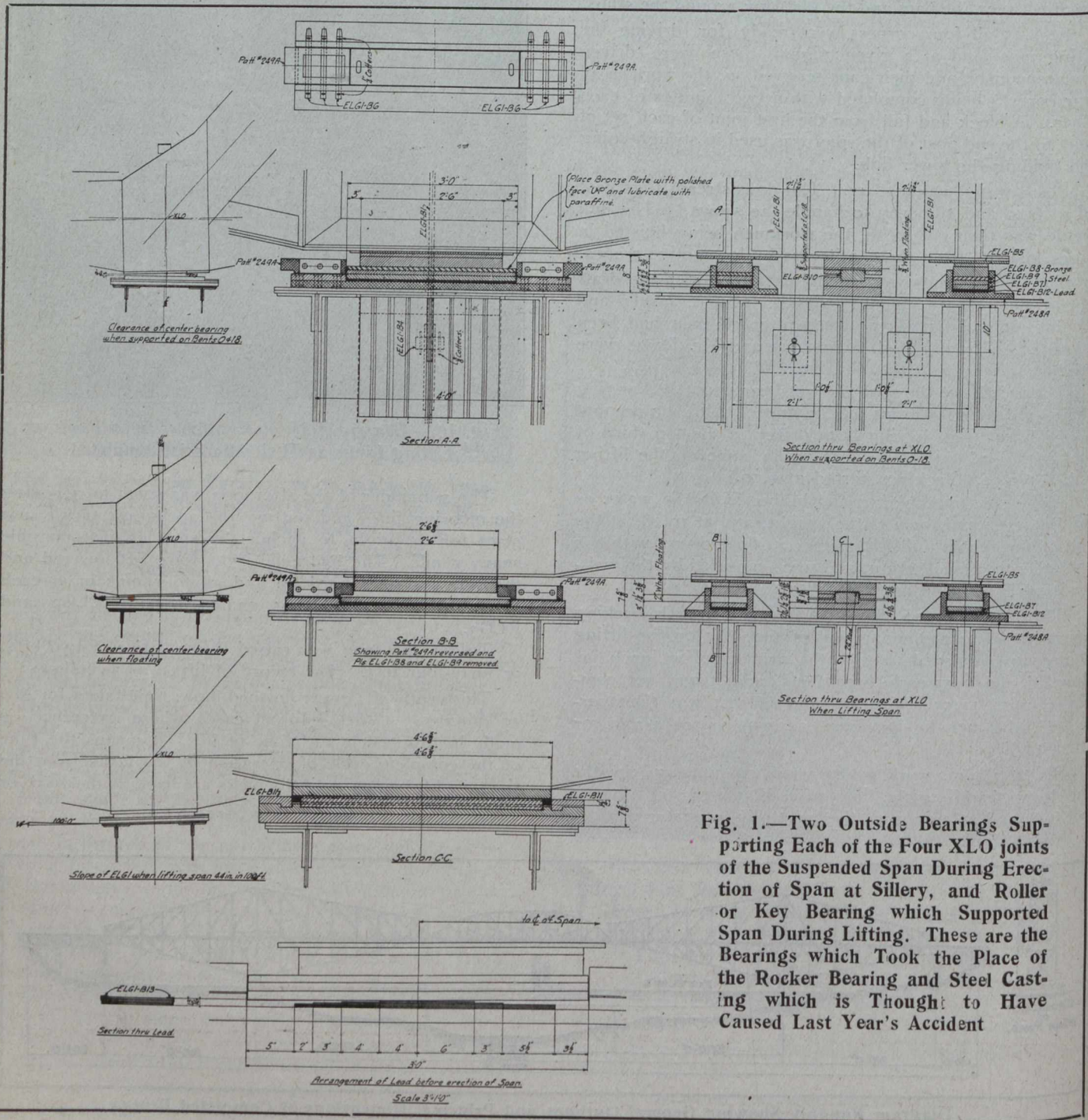

Fig. 1.—Two Outside Bearings Supporting Each of the Four XLO joints of the Suspended Span During Erection of Span at Sillery, and Roller or Key Bearing which Supported Span During Lifting. These are the Bearings which Took the Place of the Rocker Bearing and Steel Casting which is Thought to Have Caused Last Year's Accident