

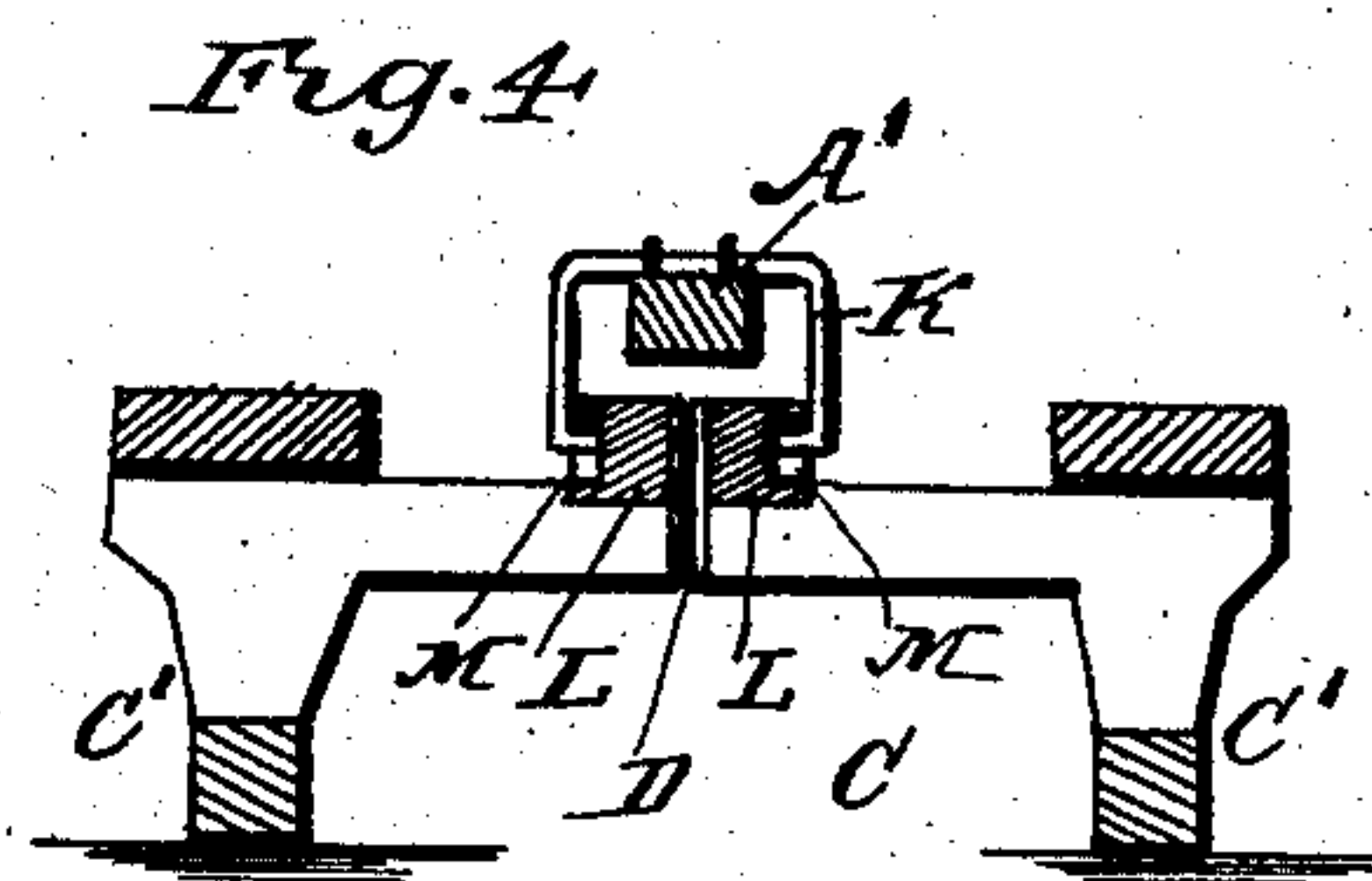
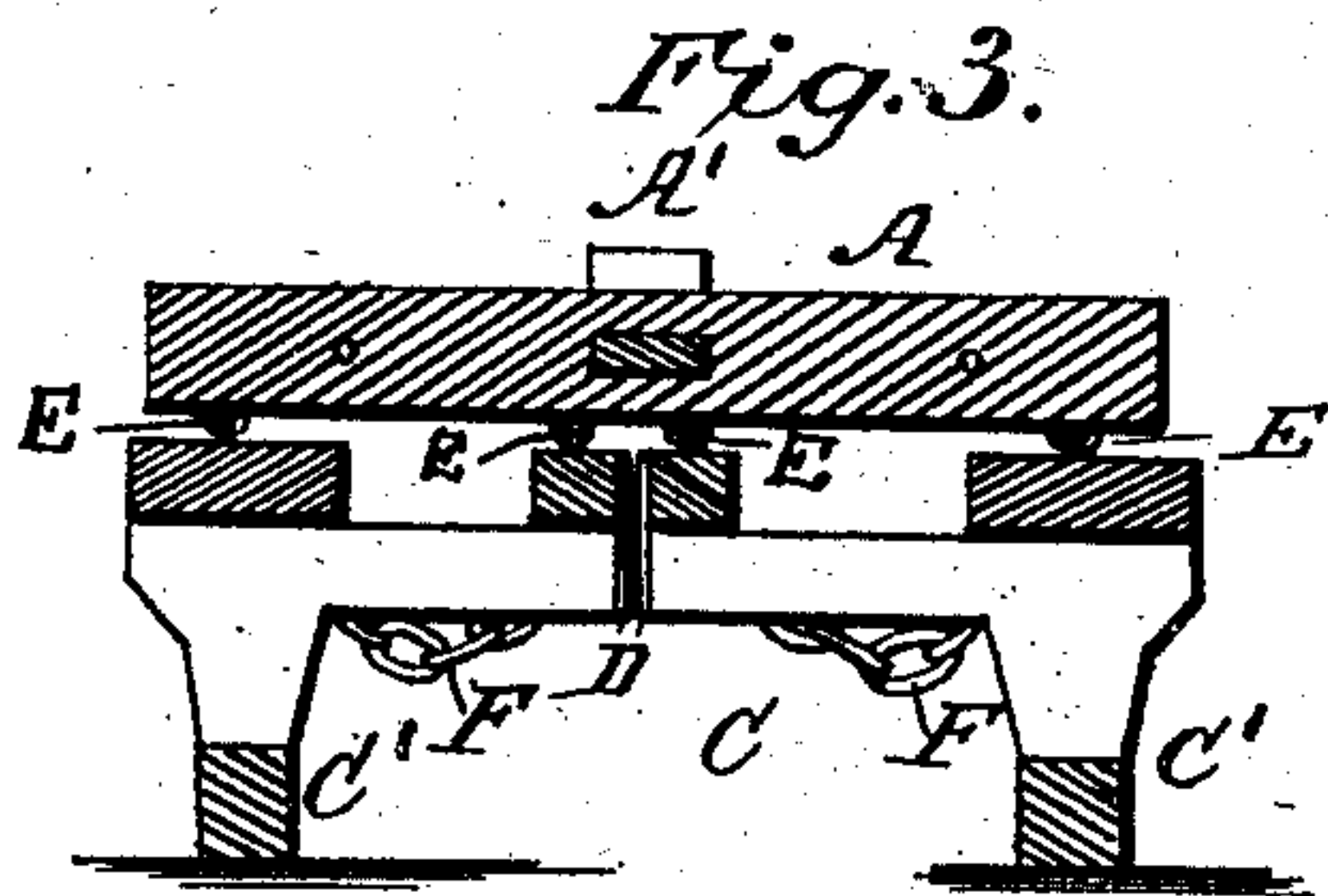
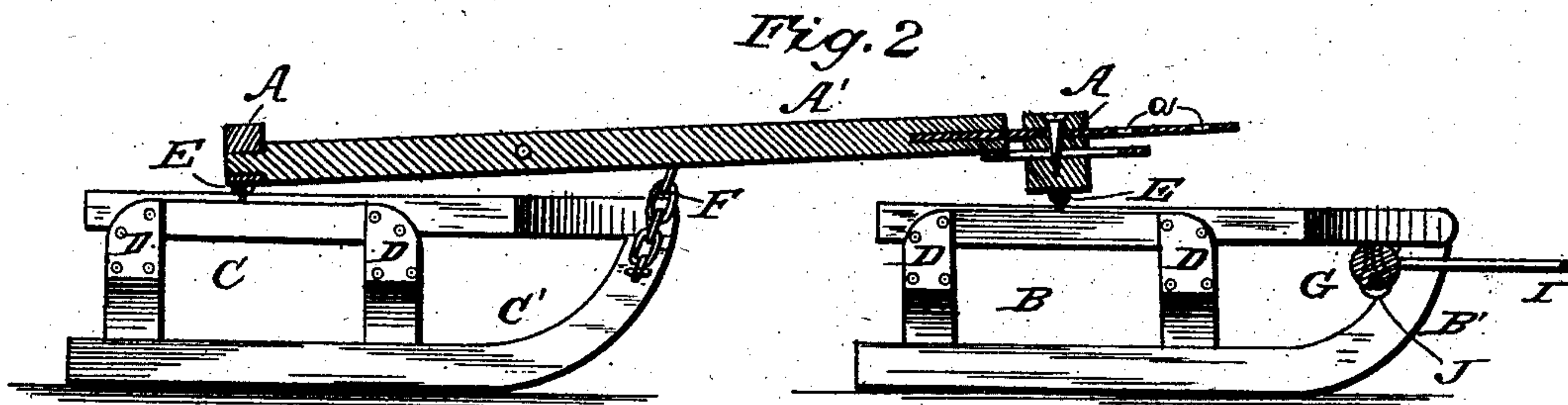
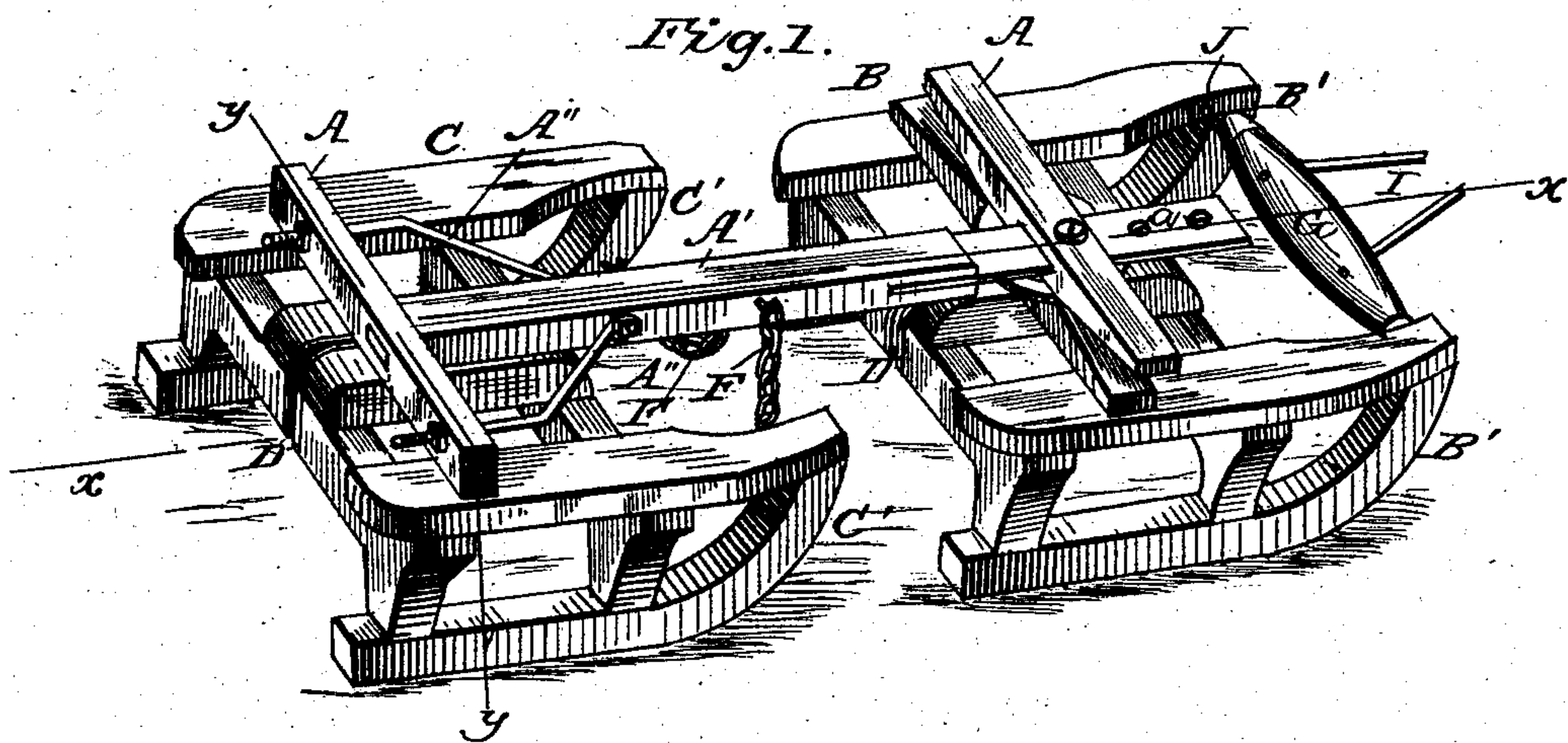
(No Model.)

W. F. RICHMOND.

BOB SLED.

No. 290,112.

Patented Dec. 11, 1883.



WITNESSES:

*Ad. G. Dutertch.*  
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INVENTOR.

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# UNITED STATES PATENT OFFICE.

WILBUR F. RICHMOND, OF STRAWBERRY POINT, IOWA.

## BOB-SLED.

SPECIFICATION forming part of Letters Patent No. 290,112, dated December 11, 1883.

Application filed October 2, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, WILBUR F. RICHMOND, a citizen of the United States, and a resident of Strawberry Point, in the county of Clayton and State of Iowa, have invented certain new and useful Improvements in Bob-Sleds; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved bob-sled. Fig. 2 is a longitudinal vertical sectional view of the same on line *x x*, Fig. 1. Fig. 3 is a cross-sectional view on line *y y*, Fig. 1; and Fig. 4 is a similar view of a modification of my invention.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to sleighs, but is more particularly adapted to be used on that class of sleighs or sleds which are commonly known as "bob-sleds," and has for its object the construction of a sled in such a manner that each runner will be independent in its movements of all the others; and it consists in the improved construction and combination of parts of the same, as will be hereinafter more fully described and claimed.

In the accompanying drawings, A represents the bolsters; A', the tongue connecting the rear to the front section of the bob-sled, and A'' the brace-rods extending from the ends of the bolster to the sides of the tongue. The tongue A' is provided in its forward end with a series of apertures, *a*, in order to enable the distance between the two sections of the sled to be increased or lessened.

B' B' represent the runners of the forward section, B, and C' C' the runners of the rear section, C, each runner being supported upon one or more separate and distinct axles, the inner ends of the axles being provided with chafing-plates D, which serve to prevent wear. Each section or runner is hinged to its respective bolster by staples E, the front ends of the

rear runners, C' C', being connected to the sides of the tongue A' by means of chains F, which serve to prevent the front ends of the runners from dropping too low down, while the front ends of the forward runners, B' B', are connected by the axle G, to which the draft-tongue I is affixed, the extended ends of the axle G sliding in loops or staples J, in order to allow free movement to the forward runners.

If desired, instead of the chains F, the rear section of the sled may have a bail, K, extending over the tongue A', the inwardly-projecting ends of the bail K sliding within grooves or recesses M on the outer sides of the pieces L, which arrangement will readily be understood by reference to Fig. 4 of the drawings.

From the foregoing description, taken in connection with the accompanying drawings, the construction of my improved bob-sled will readily be understood without requiring further explanation.

It will be seen that my improved sled is simple in construction, and by constructing it in the manner described each runner will move independent of the others, so that in passing over rough ground all shocks and jars will be prevented.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

In a bob-sled of substantially the described construction; the combination of the sections B and C, consisting of the runners B' B' and C' C', having chafing-plates D D, and hinged independently to the bolsters A, adjustable tongue A', connecting the two sections together, chains F F, and movable axle G, to which the draft-tongue I is secured, all constructed and arranged to operate substantially in the manner and for the purpose shown and described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

WILBUR F. RICHMOND.

Witnesses:

B. W. NEWBERRY,  
C. W. NEWBERRY.