

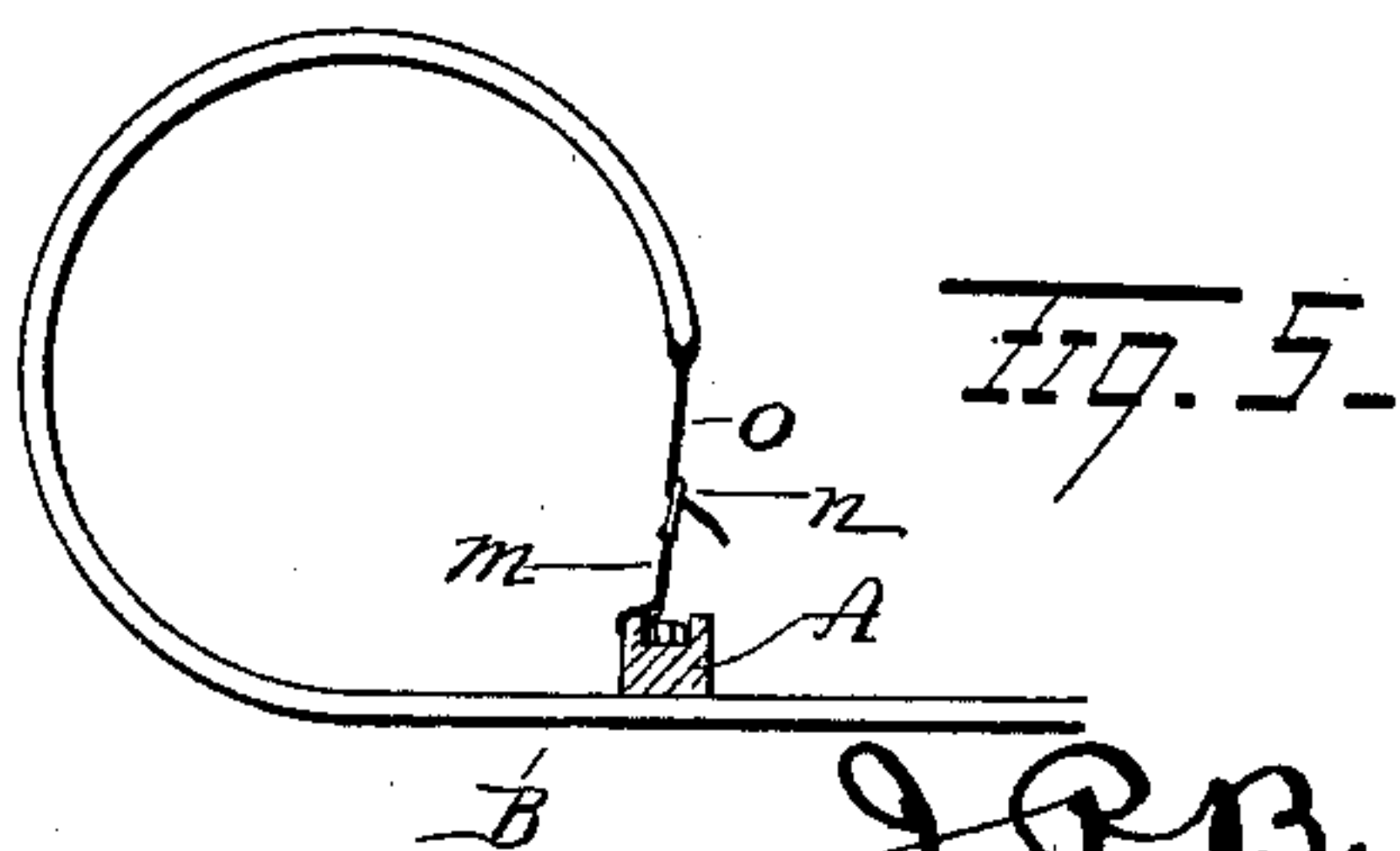
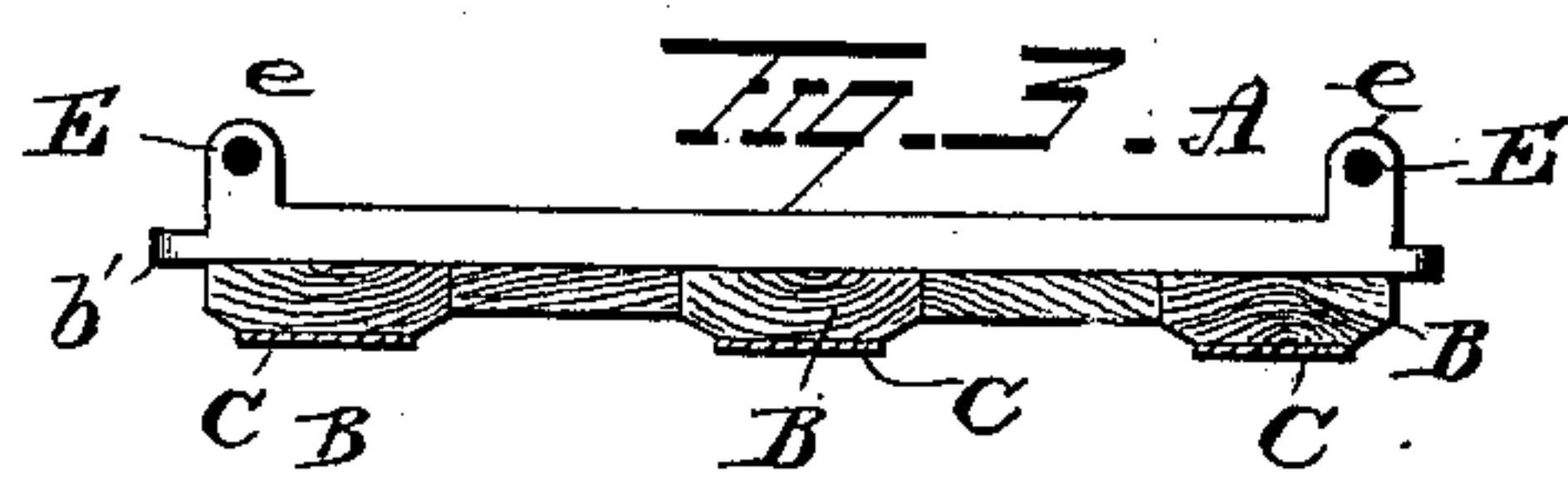
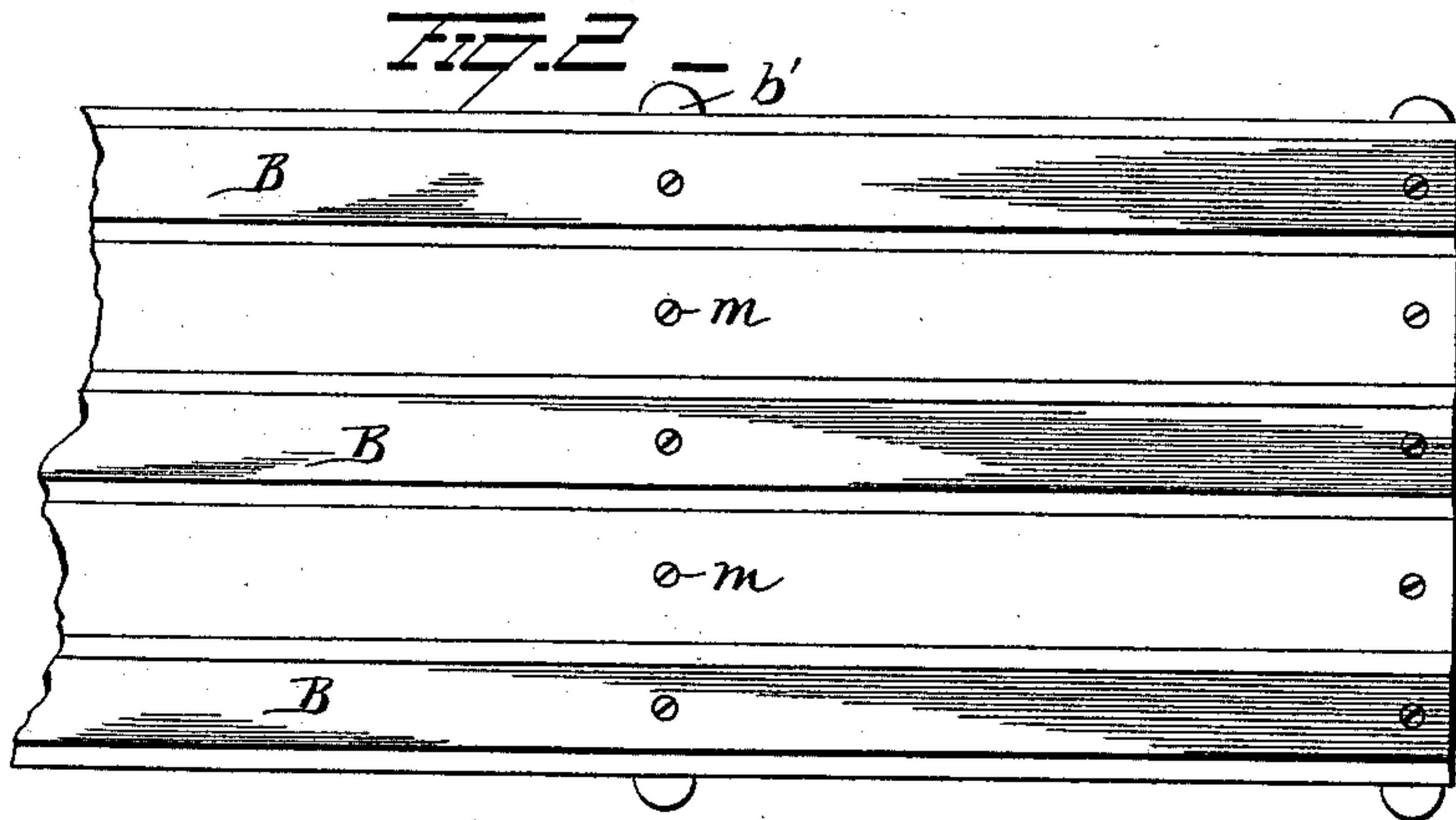
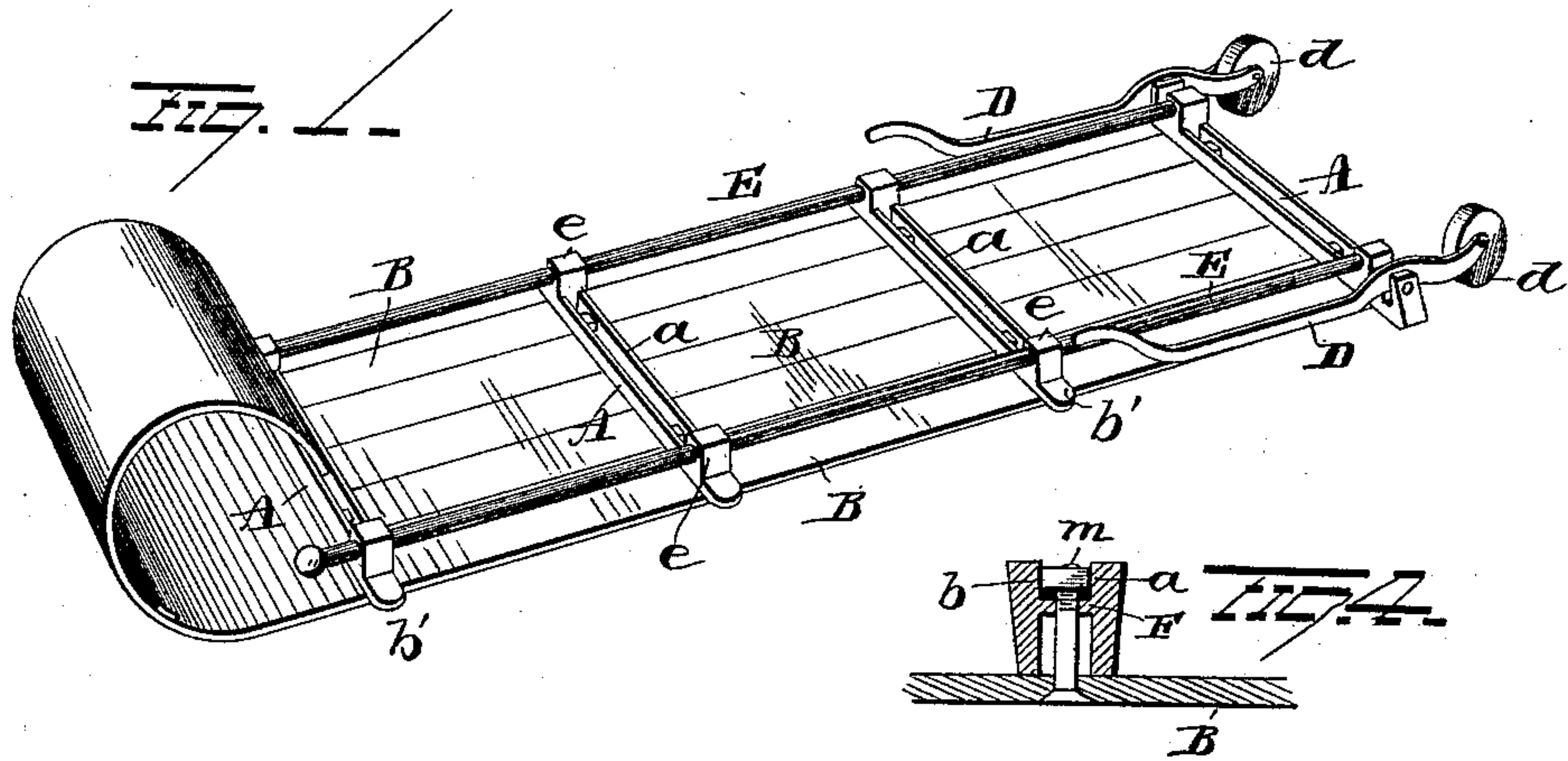
(No Model.)

J. P. BURKHARD.

TOBOGGAN.

No. 349,269.

Patented Sept. 14, 1886.



WITNESSES

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TOBOGGAN.

SPECIFICATION forming part of Letters Patent No. 349,269, dated September 14, 1886.

Application filed March 22, 1886. Serial No. 196,070. (No model.)

To all whom it may concern:

Be it known that I, JOHN PAUL BURKHARD, of St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Toboggans; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

10 My invention relates to an improvement in toboggans.

Heretofore in toboggans the entire running-surface has been made wholly of wood, and as a consequence of this the friction generated in coasting has rapidly worn out the bottom and rendered the toboggan useless or repairs necessary. The roughing up of the wood, which occurs in a little while, also tends to impede its speed.

20 The object of my present invention is to provide a coasting vehicle adapted to be impelled by gravity down an incline, having a running-surface which will last a great length of time without any considerable wear, and which will enhance its speed.

A further object is to provide improved hand-rails, steering-gear, and fenders.

30 A further object is to provide cross-bars adapted to form nut-locks, and which will serve to prevent the nut and bolt from catching in and tearing the apparel of the rider.

A still further object is to provide means whereby the curvature of the front end may be regulated.

35 With these ends in view my invention consists in certain features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

40 In the accompanying drawings, Figure 1 is a view in perspective. Fig. 2 is a bottom plan view of my improved toboggan. Fig. 3 is a cross-section of the same. Fig. 4 is a sectional view of one of the cross-bars; and Fig. 5 is a view in side elevation showing the manner of adjusting the front end of the toboggan.

45 The bottom of the toboggan is composed of thin strips or a single strip of wood or other suitable material (not metal) running longitudinally, and fastened together or strengthened by means of cross-bars A, located on its upper side.

In constructing a toboggan, I preferably use five strips of wood or other suitable material. When this number is employed the two outer and center strips, B, are made thicker and beveled on their edges, which project below the faces of the adjacent strips. On these strips are placed the metallic strips or shoes C, which are made preferably of thin steel, so that they may readily conform with the irregularities of the slide, and communicate to the rider no unpleasantness on account of the unevenness of the slide. These strips are also fastened to the cross-bars by means of bolts *m*. It will readily be seen that by the employment of the metallic strips or shoes, less friction is generated in coasting and the speed very much enhanced. The cross-bars A, which are situated on the upper side of the toboggan, are preferably made with a channel or groove, *a*, running their entire length on the top, to serve as a lock for the nuts *b* when adjusted on the bolts, and also as a guard to prevent the clothing of the rider from being caught and torn by the nut and bolt. The cross-bars are preferably H-shaped in cross-section, since that is the form best suited for combining utility, strength, and lightness. The ends of the cross-bars are provided with rounded projections B', which serve as buffers to protect the sides of the toboggan from wear and tear by contact with the sides of the path down which it slides. The ends of the cross-section terminate in eyes *e*, for the reception of the hand-rail E, which are secured therein in convenient positions to be grasped by the hands of the riders. The rear cross-bar is provided outside of the eyes *e* at each end with a pair of upwardly-extending ears or their equivalent, between which is pivotally secured a lever, D, carrying in its rear end a wheel or roller, *d*. The latter is preferably rubber or some tough elastic material, and when the handle of the lever is elevated the roller is pressed in contact with the face of the slide, and, by rolling friction assisted by the depression of the face of the roller, affords a friction-brake, one on each side, which serve to guide the toboggan.

Interposed between the heads and nuts of the bolts *m* are elastic cushions F, which serve by their tension and frictional action to prevent the bolts from turning by the jar of the

toboggan, and also afford a yielding contact between the nut or head of bolt and cross-bar or bottom, or both, thus preventing strain. The curvature of the front end of the toboggan

5 is regulated by two or more straps, *m*, preferably secured to the front cross-bar, *A*, and each provided at its upper end with a buckle, *n*, adapted to engage a strap, *o*, secured to the free end of the curved front of the toboggan.

10 By thus connecting the curved front end to the front cross-bar, the free edge of said curved front can be drawn nearer to or permitted to move away from the front cross-bar, as necessity demands.

15 Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a toboggan, the combination, with a bottom, substantially as described, of two or

20 more flat metal strips secured directly to the lower face of said bottom, substantially as set forth.

2. In a toboggan, the combination, with a bottom composed of a series of strips of wood

25 secured together, of two or more flat metal strips secured directly to the lower faces of two or more of said wooden strips, substantially as set forth.

3. In a toboggan, the combination, with the

30 bottom formed of strips of wood, each alternate strip being beveled and projecting below its adjacent strip, of metallic strips secured to the bearing-faces of the said projecting strips, substantially as set forth.

35 4. In a toboggan, the combination, with the bottom and cross-bars extending across the upper side of same, the said cross-bars having grooved upper surfaces, of nuts located within the grooves, and bolts passing through the

40 bottom and engaging the nuts, substantially as set forth.

5. In a toboggan, the combination, with the bottom composed of strips of wood, of H-shaped cross-bars adapted to serve as a lock for the nut when adjusted to the bolt, and also to

45 serve as guards, substantially as set forth.

6. A toboggan having an adjustable curved front end, substantially as set forth.

7. In a toboggan, the combination, with a bottom, of the cross-bars having grooved upper

50 surfaces, and eyes at their opposite ends, nuts located within said grooves, bolts passing through the bottom and engaging the nuts and side rails passing through the eyes, substantially as set forth.

55

8. In a toboggan, the combination, with the bolt and its nut for securing the bottom to the cross-bar, of an elastic cushion located between the nut and the head of the bolt, for the purpose

60 substantially as set forth.

9. The combination, with a toboggan, of a steering-lever pivoted to the toboggan and projecting behind the same, and an elastic cushion secured to the rear end of said lever.

10. In a toboggan, a steering-lever provided

65 with an elastic roller journaled in its end, substantially as set forth.

11. In a toboggan, a pair of steering-levers pivotally secured to the ends of the rear cross-bar and provided with rollers journaled in their

70 ground ends, substantially as set forth.

12. In a toboggan, the combination, with the cross-bars and bottom, of buffers located on the ends of the cross-bars, for the purpose substan-

75 tially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHN PAUL BURKHARD.

Witnesses:

H. L. CARVER.

FREDERICK SCOTTEN.