(No Model.)

J. G. & H. BODENSTEIN.

ICE PLOW.

No. 332,477. Patented Dec. 15, 1885.

Fig: 1.

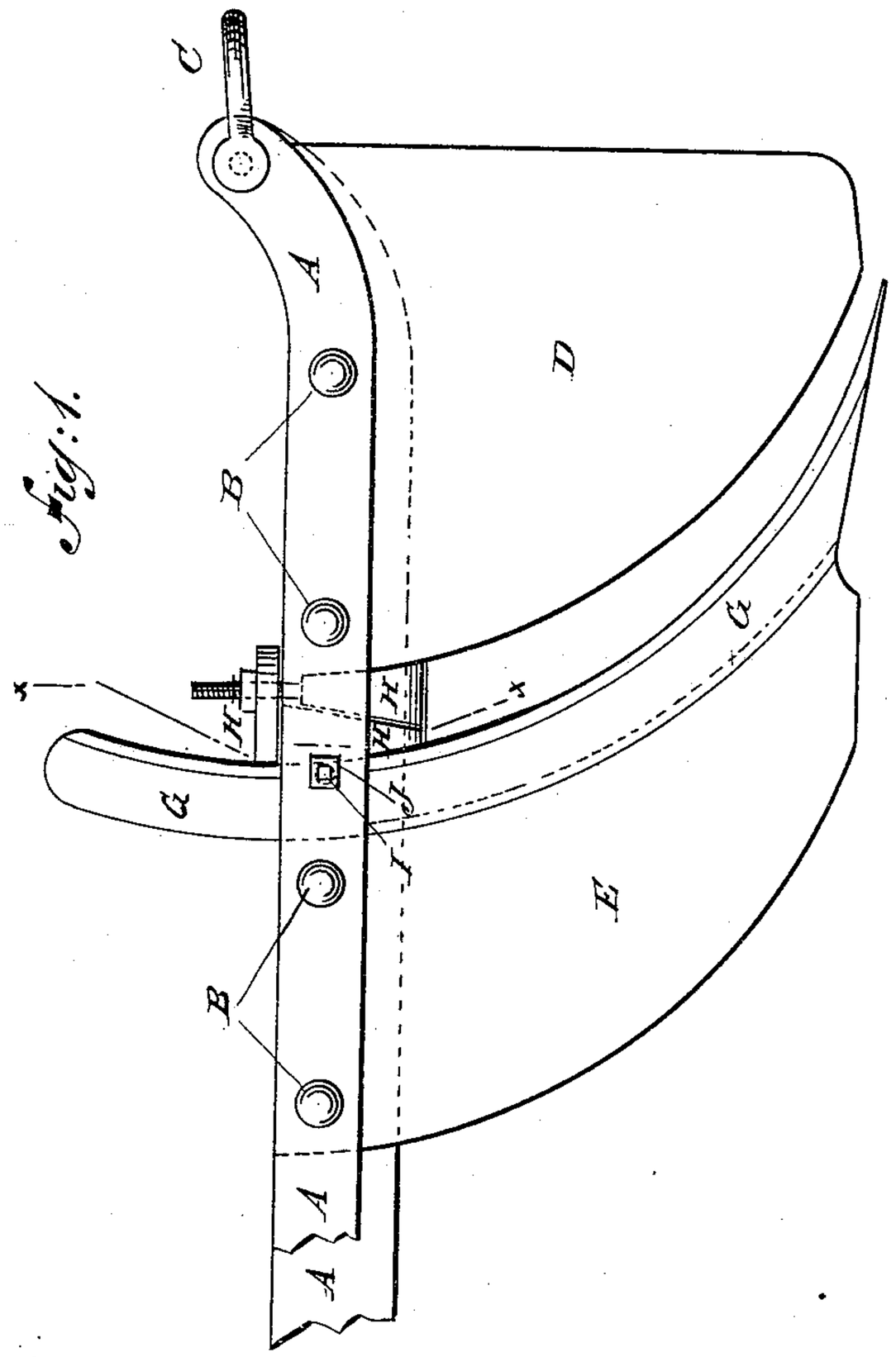


Fig: 3.

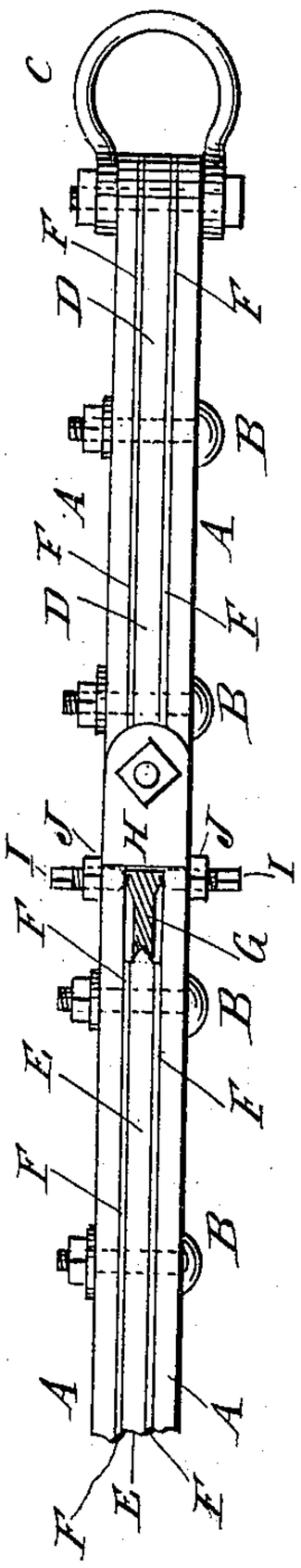
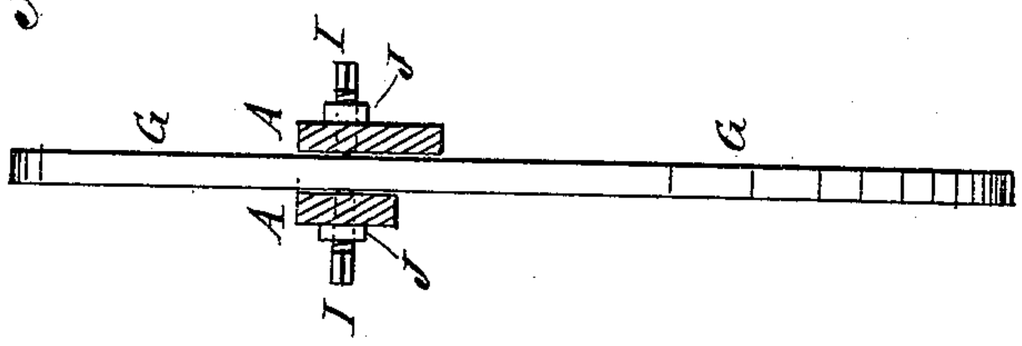


Fig: 2.



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UNITED STATES PATENT OFFICE.

JOHN GEORGE BODENSTEIN AND HENRY BODENSTEIN, OF STAATSBURG, NEW YORK.

ICE-PLOW.

SPECIFICATION forming part of Letters Patent No. 332,477, dated December 15, 1885.

Application filed August 18, 1885. Serial No. 174,743. (No model.)

To all whom it may concern:

Be it known that we, JOHN GEORGE BODENSTEIN and HENRY BODENSTEIN, both of Staatsburg, in the county of Dutchess and State of New York, have invented a new and useful Improvement in Ice-Plows, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a part of an ice-plow to which our improvement has been applied. Fig. 2 is a sectional front elevation of the same, taken through the line *x x*, Fig. 1. Fig. 3 is a plan view of the same, the tooth being shown in section.

The object of this invention is to provide ice-plows constructed in such a manner as to be more readily adjusted, and thus more convenient in use and more effective in operation than ordinary ice-plows.

The invention consists in the construction and combination of various parts of the ice-plow, as will be hereinafter fully described, and then pointed out in the claims.

A represents the frame of the plow, which is made in two parts, secured to each other by bolts B. One of the parts of the frame A is made deeper than the other, as shown in Figs. 1 and 2, so that a space will be left at the lower edge of the shallower part of the frame for the escape of chips when the plow is working at its full depth and the lower edge of the deeper part of the frame slides on the ice. The forward end of the frame A is bent upward, as shown in Fig. 1, and to it is secured the draft-clevis C. The upward curve of the forward end of the frame A makes the frame strong and much less liable to break than when an upwardly-projecting arm is formed upon the forward end of the frame for the attachment of the draft. Another advantage of the upward curve at the forward end of the frame A is that it causes the said frame to readily pass over projections upon the surface of the ice instead of striking against the said projection, as the upright draw-arm does.

D is the dumb-plate, and E is the tooth-supporting plate, the upper edges of which are inserted between the parts of the frame A, where they are secured in place by the bolts B.

F are the re-enforcing-plates which are interposed between the plates D E and the parts of the frame A, to bring the said parts to such a distance apart that the teeth G can be inserted without grooving the inner sides of the parts of the frame A, and thus weakening the said parts. The teeth G are made with a V-shaped groove in their rear edges to receive the V-shaped forward edges of the tooth-supporting plates E, and are secured in place by the fastening H, for which Letters Patent No. 295,724 were issued March 25, 1884.

I are set-screws, which pass in through screw-holes in the parts of the frame A and rest against the opposite sides of the forward edge of the tooth G, so that the points of the teeth can be readily brought into line by adjusting the said set-screws I. The set-screws I are provided with jam-nuts J for securing them in place when adjusted.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. In an ice-plow, the combination, with the frame A and the tooth G, of the set-screws I and the jam-nuts J, substantially as herein shown and described, whereby the points of the teeth can be readily brought into line, as set forth.

2. In an ice-plow, the combination, with the frame A and the plates D E, of the re-enforcing-plates F, substantially as herein shown and described, whereby space for the teeth is obtained without grooving the parts of the said frame, as set forth.

3. In an ice-plow, the frame A, made substantially as herein shown and described, with its forward end curved upward, whereby the said frame can pass over projections, as set forth.

4. In an ice-plow, the frame A, consisting of two bars or plates of unequal width, secured together and having their forward ends curved or bent upward, substantially as described, whereby provision is made for the escape of chips when the plow is working at its full depth and the frame permitted to pass over projections, as set forth.

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Witnesses:
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