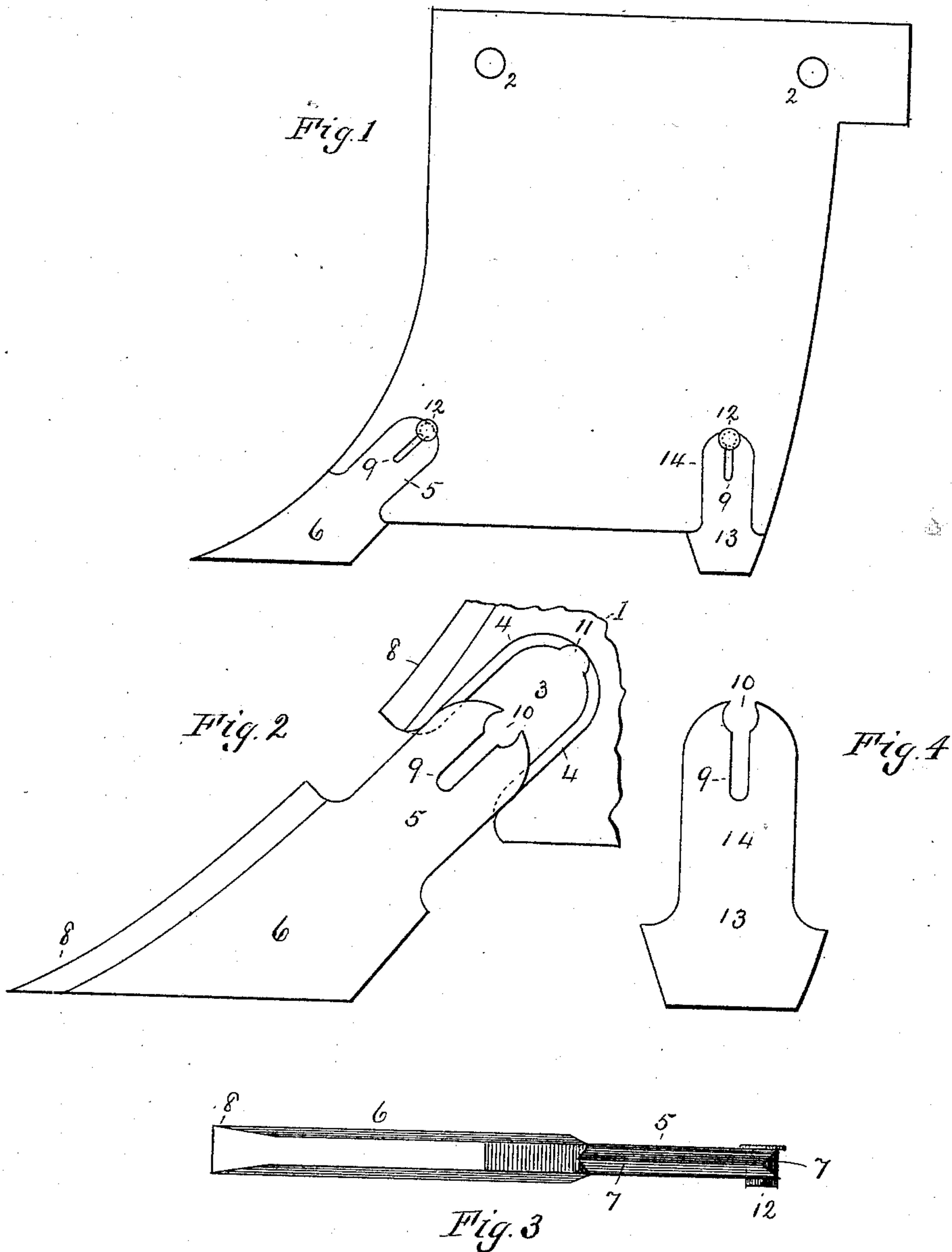


(No Model.)

T. H. REEVES.
ICE PLOW.

No. 473,782.

Patented Apr. 26, 1892.



Witnesses
Karl Toman
A. L. Jones.

Inventor
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By *His Attorney*
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UNITED STATES PATENT OFFICE.

THOMAS H. REEVES, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR OF ONE-FOURTH TO ISAAC F. BISSELL, OF TRENTON, NEW JERSEY.

ICE-PLOW.

SPECIFICATION forming part of Letters Patent No. 473,782, dated April 26, 1892.

Application filed March 24, 1891. Serial No. 386,243. (No model.)

To all whom it may concern:

Be it known that I, THOMAS H. REEVES, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Ice-Plows, of which the following is a specification.

My invention relates to devices for marking and cutting ice; and the improvements relate principally to an insertible tooth and an insertible heel-piece.

The object of the invention is to provide cutting and guiding devices that can be readily detached.

My improvements are illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the plate of an ice-plow to which the devices of my improvement are attached. Fig. 2 shows, in an enlarged view, a side elevation of the forward portion of such plate with the tooth or share inserted. Fig. 3 is a view of the under side of the insertible tooth, and Fig. 4 is a detached view of the insertible heel-piece.

In said drawings, 1 designates the vertical plate of an ice-plow, having perforations 2 near the top for attaching it to a plow-beam. The forward edge of the plate 1 is made of suitable curved form, and at the lower forward corner is an inclined slot 3, the edges of which are beveled, as shown at 4. Into this slot is inserted the shank 5 of a suitable share or tooth 6. The edges of the shank 5 are grooved, as shown at 7, to fit the beveled edges of the slot 3. It will be obvious that the groove might be formed in the plate and the edges of the shank beveled to correspond to the groove, and I desire to cover that construction, as well as the other, by the language used in the claims hereto appended. The shank 5 is of equal thickness with plate 1, so that after it has been inserted in its slot its sides will be flush with the sides of the plate 1, and therefore the two sides of the cutting device will be smooth without those projecting points which are often found in other ice-plow cutters. The forward edge of the plate 1, as well as of the tooth 6, is slightly wider than the body portion, as shown at 8, so as to make the cut slightly wider than the body of the plate 1, and thereby prevent binding. It

is preferable that the inner end of the slot 3 and of the shank 5 be made slightly wider than the outer portion of the slot. A slot 9 is formed in the end of the shank, and at its mouth is an enlargement 10, and in the head of the slot 3 is a corresponding recess 11, and such enlargement and slot are designed to receive a rivet. By this means the shank of the tooth when slight pressure is exerted can be forced into the slot 3, and when in place it will expand sufficiently to hold it temporarily. A rivet 12, a trifle thicker than the opening 10, is then driven through the opening and secured, by which means the edges of the shank are made to bind against the sides of the slot 3 to hold the tooth securely in place. As will be obvious, the rivet can be inserted in a suitable hole formed at any point along the edges of the shank and groove. At the rear corner of the plate is inserted a heel-piece 13, adapted to follow loosely in the kerf cut by the tooth and to guide the plow to prevent lateral movement. The shank 14 of this heel-piece is of exactly the same construction as the shank of the tooth, being of equal thickness with plate 1, so that after said shank 14 has been inserted in the plate its sides will come flush with the sides of the plate, as shown, and the means for securing it in the plate 1 are the same as in the case of the tooth, and hence further description is unnecessary.

Having described my invention, what I claim is—

1. In an ice-plow, the combination, with a slotted plate, of a removable tooth inserted in the forward slot and a removable heel-piece inserted in the rear slot and adapted to follow loosely in the kerf cut by the tooth, so as to prevent lateral movement, substantially as described.

2. In an ice-plow, the combination, with a plate having the slots therein, of a cutting-tooth secured removably in one slot and a heel-piece secured removably in another slot, said tooth and heel-piece being situated so that their sides will be flush with the sides of the plate, substantially as described.

3. In an ice-plow, the combination, with a plate having slots extending inwardly from the lower edge thereof, of a tooth having its

shank inserted in the forward slot flush with the sides of the plate, said shank being split and perforated, so as to be secured by a rivet, and a heel-piece inserted in the rear slot
5 flush with the sides of the plate, said heel-piece being split and perforated and held by a rivet and being adapted to follow loosely in the kerf cut by the tooth, so as to prevent lateral movement, substantially as described.

THOMAS H. REEVES.

Witnesses:

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