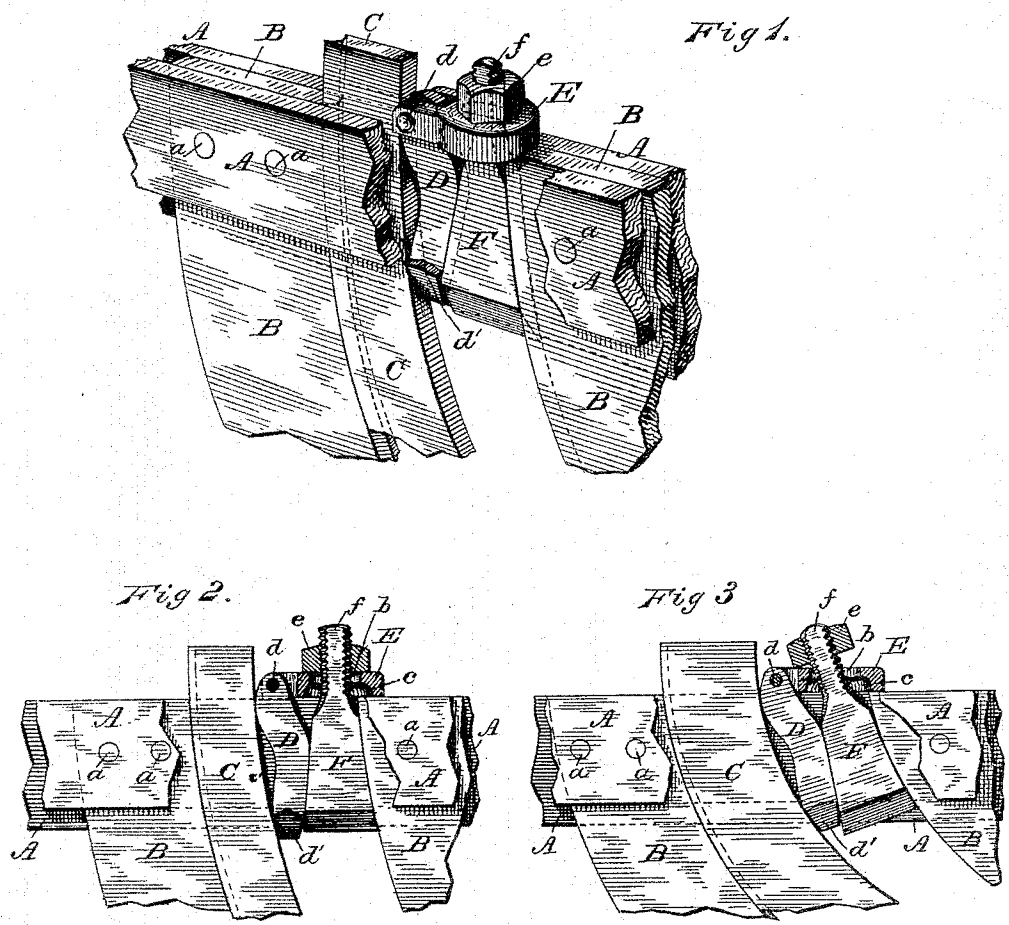
(No Model.)

J. G. BODENSTEIN

TOOTH FASTENING FOR ICE PLOWS.

No. 491,332. Patented Feb. 7, 1893.



WITNESSES

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TOOTH-FASTENING FOR ICE-PLOWS.

SPECIFICATION forming part of Letters Patent No. 491,332, dated February 7, 1893.

Application filed September 13, 1890. Serial No. 364,857. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. BODENSTEIN, a citizen of the United States, residing at Staatsburg, in the county of Dutchess and State of New York, have invented certain new and useful Improvements in Inserted Tooth-Fastenings for Ice-Plows; 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.

My invention relates to inserted tooth fastenings for ice-plows in which a stop-plate and a wedge key are used in conjunction with each other; and the objects of my improvement are first, to provide a convenient method for holding the stop-plate and wedge-key together to better guard against loss of the key during the adjustment of the plow teeth; and second to provide a tooth fastening which readily adapts itself to any space or any angle between the teeth and supporting blades of the plow, by means of a pivoted, adjustable, head upon the stop-plate. I attain these objects by means of the device illustrated in the accompanying drawings, in which

Figure 1, is a perspective view of part of an ice plow, with some portion broken away to better show my improvement; Fig. 2, is a side elevation of the same showing my device applied to a plow having teeth not very large and not very much curved; Fig. 3, is a similar view showing my device applied to a plow having larger teeth, set and shaped with greater curves.

Similar letters refer to similar parts throughout the several views.

A represents a plow-beam, between the two parts of which are bolted at *a*, the supporting plates B. Against, and in front of, these plates B, are placed the adjustable teeth or cutters C, fitting snugly between the parts of the plow-beam A. My fastening is designed to fit between the concave front surface of the teeth C and the rear convex surface of the supporting plates B, and consists in part of a stop-plate D, having at the bottom a shoulder *d'* formed as shown, to engage with the under side of the plow-beam for holding the plate in place, and having at the top an adjustable head E, pivoted to D at *d*. This head E rests upon the plow beam A with a perfectly even bearing, and yet allows the plate D to adapt itself to different angles in different plows, as shown in Figs. 2 and 3. E is perforated at *b*, to permit the passage of the upper end *f*, of the wedge key F. This key constitutes the other portion of my fastening, and is provided on its upper threaded end *f*, with a nut *e*, by which the wedge-key may be drawn up to bear against the rear edge of the supporting plate B, and thus crowd the stop-plate D, against the tooth C, to hold it securely in place. Both stop plate and wedge-key are beveled at the bottom in the usual manner to present the least resistance to ice chips.

The device herein described is an improvement upon the inserted-tooth fastening previously invented by me and shown in Patent No. 295,724, dated March 25, 1884, in which a perforated L-head served to prevent an accidental separation of the two parts of the fastening during the adjustment of the teeth of the plow. But with that device, the L-head being rigid, it is necessary to provide stop-plates of different sizes and shapes, for different ice-plows, in order to have the fastening fit as perfectly as it should. Whereas, with the device herein-described, having a perforated head pivoted to the stop-plate, it is possible to use the same fastening for plows of various sizes and shapes, as is shown in Figs. 2 and 3 of the drawings, thus avoiding much trouble and expense in securing and adjusting ice-plow teeth.

The concavity *c*, underneath the pivoted head, allows the wedge-key rather more freedom of movement for convenient adjustment to plows having teeth with different sizes and angles.

Having thus described my invention what I claim and desire to secure by Letters Patent is:

The combination with a plow beam consisting of the members A, A, and the supporting plates B B interposed between said members and bolted thereto at a distance a part of a tooth C located between said members and abutting against one of the supporting plates,

and having a shoulder to engage the lower edge of one of the members, a stop plate D, a wedge F, having a screw-threaded shank and a perforated head pivoted to the upper end of the stop plate, and a nut to clamp the head in place, on the shank of the wedge, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN G. BODENSTEIN.

Witnesses:
N. T. KIPP,
TIMOTHY HERRICK.