

(No Model.)

2 Sheets—Sheet 1.

G. B. DAVISON:
HARROW SPRING TOOTH FASTENING.

No. 576,362.

Patented Feb. 2, 1897.

Fig. 1.

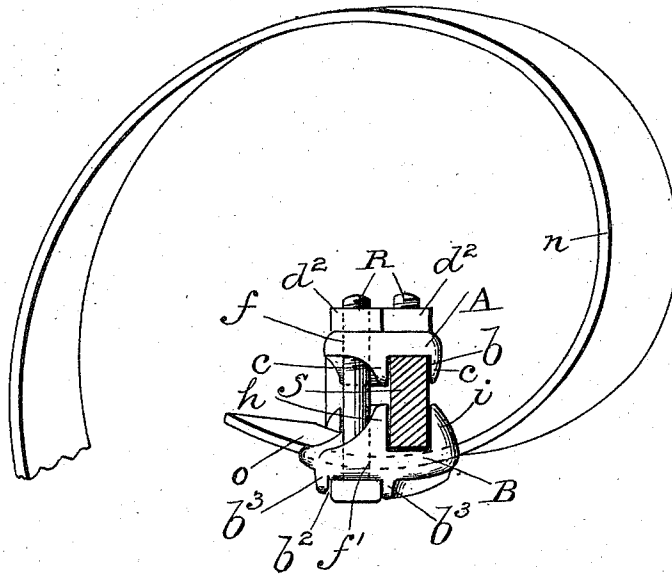


Fig. 2.

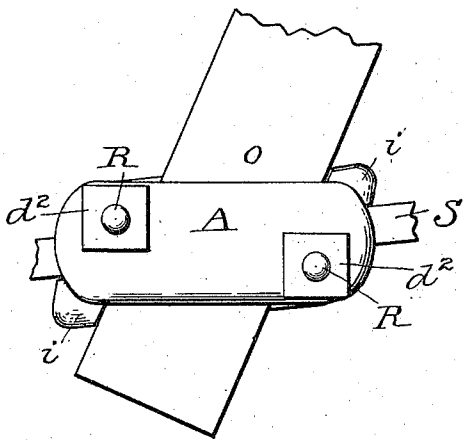
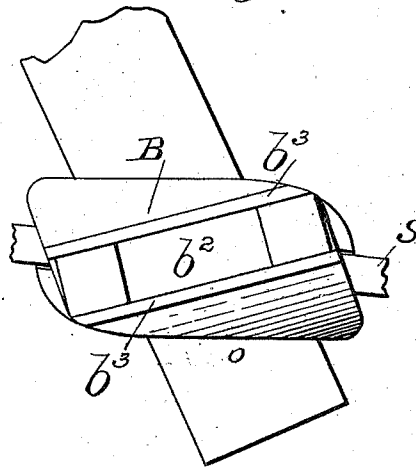


Fig. 3.



Witnesses

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Fig. 4.

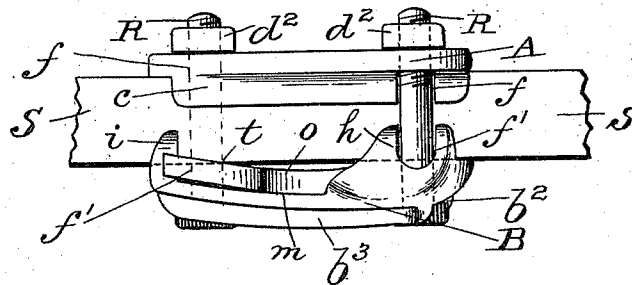


Fig. 5.

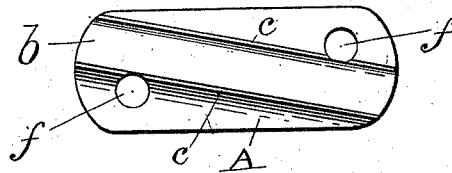


Fig. 6.

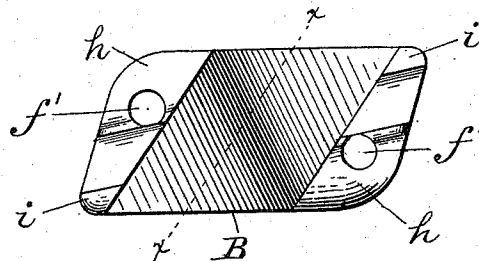
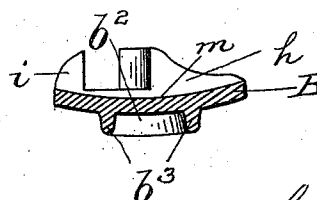


Fig. 7.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE BENNETT DAVISON, OF UTICA, NEW YORK.

HARROW-SPRING-TOOTH FASTENING.

SPECIFICATION forming part of Letters Patent No. 576,362, dated February 2, 1897.

Application filed April 13, 1896. Serial No. 587,303. (No model.)

To all whom it may concern:

Be it known that I, GEORGE BENNETT DAVISON, a citizen of the United States, residing at Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Harrow-Spring-Tooth Fastenings; 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 fastenings for harrow spring-teeth.

As is well known, it has been found very difficult to so fasten such teeth with a clip as to prevent endwise movement of the teeth upon their seats, caused by the constant jar and vibration while in contact with the ground.

The principal object of my invention is to remove this difficulty.

Another object is to avoid the necessity of double-nutting or adopting a lock and nut, which has been done so often, and, further, to accomplish the maximum amount of efficiency with the fewest number of parts.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side view, partly in perspective, with the tooth in place on a section of the frame; Fig. 2, a top view of the fastening with only shank of tooth seen; Fig. 3, a bottom view; Fig. 4, a front view in elevation; Figs. 5 and 6, detail plan views of the upper and lower plates of the clip; and Fig. 7 a section on line *xx* of Fig. 6.

Referring to the drawings, the fastening consists of a clip composed of two plates and two bolts.

A is the upper plate, provided on its under side with a diagonal slot *b*, inclosed by flanges *c*. On each of its opposite ends and on opposite sides of the slot the plate A is provided with a bolt-hole *f*.

B is the lower plate, which at the opposite ends of its upper face is provided with large lugs *h h* and smaller lugs *i i*, set to form diagonal slots between them to correspond with the diagonal slot *b* in the upper plate. The space *m* between the lugs *h h* and *i i* is smooth and curved to form a seat for the shank *o* of a spring-tooth *n*. The lower plate has also bolt-holes *f'*, passing through the larger lugs

h h. On its bottom face the lower plate B is provided with a slot *b'*, inclosed by flanges *b''*.

The two plates are united by bolts R, passing through the holes above described, the heads of said bolts held in the slot *b'* of the lower plate between the flanges *b''* and the threaded ends of the bolts passing through the upper plate and there provided with nuts *d'*.

S is a portion of a harrow-frame to which the clip and the tooth are secured.

The tooth-shank *o* is placed on the lower plate and under the frame-section S, so as to cross the frame at an angle of forty-five degrees, so as to make a biting-corner at *t* at each opposite end of the clip adjacent to the lugs *i i* on the lower clip-plate. The bolts R, passing through the clip at the opposite corners from these biting-corners, hold the tooth very rigid, for the reason that the spring action of the tooth is against the drawing action of the bolts and nuts, and the tendency of this action of the bolts is to flatten the tooth, the result being to render the tooth a spring-lock on the nuts and to hold the tooth-shank absolutely against end motion or slipping or vibration of any sort.

Having thus described my invention, what I claim is—

1. In combination with a harrow spring-tooth, a fastening for said tooth consisting of a clip having a lower plate with end lugs, and a curved and diagonal crossed space between said lugs, to form a seat for the shank of the tooth, an upper plate having a diagonal slot on its under surface, a bar resting on said shank and held in said slot and between the said lugs on the lower plate, and bolts to unite said plates, said bolts passed through said lugs and plates at opposite ends, and opposite sides of said bar, substantially as described.

2. In combination with a harrow-frame section and a harrow-tooth, a fastening for said tooth composed of two parallel plates longitudinally placed on said frame-section, means on said plates to receive and hold said frame-section, bolts to unite said plates on opposite sides of said frame-section and inclosing said tooth crossing one of the plates diagonally and held between said plate and the frame-section, substantially as described.

3. In combination with a harrow-frame and
a spring-tooth, a fastening for said tooth com-
posed of two plates and two bolts for uniting
said plates, the upper plate having a diago-
5 nal seat for the frame-section, the lower plate
having its upper surface channeled diago-
nally and curved to conform to the shape of
the tooth and to form a seat therefor, said
tooth placed on said seat under said section

and biting said section at diagonally oppo- 10
site corners of said seat, substantially as de-
scribed.

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

GEORGE BENNETT DAVISON.

Witnesses:

W. J. SCOTT,

FRED GIBSON.