

Geo. Fry.

Improved Mode of Fastening Harrow Teeth.

112236

PATENTED FEB 28 1871

Fig. 1.

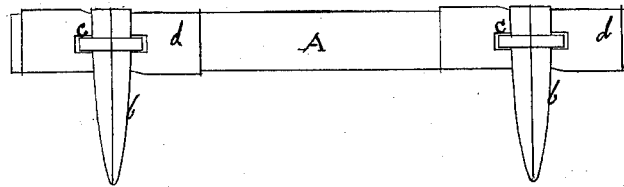


Fig. 2.

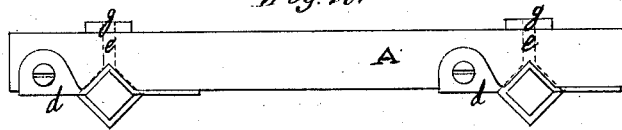


Fig. 3.

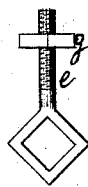
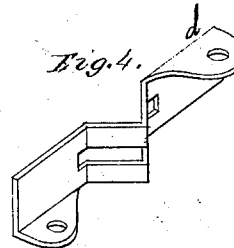


Fig. 4.



Witnesses
John A. Ellis.
J. P. White

Inventor
George Fry
Geo.
J. R. Alexander
Atty.

United States Patent Office.

GEORGE FRY, OF NEWAYGO, MICHIGAN

Letters Patent No. 112,236, dated February 28, 1871.

IMPROVEMENT IN THE MODES OF FASTENING HARROW-TEETH.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, GEORGE FRY, of Newaygo, in the county of Newaygo and State of Michigan, have invented certain new and useful Improvements in the Mode of Fastening Harrow-Teeth; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon which form a part of this specification, in which—

Figure 1 represents one side of a harrow with the teeth secured in position.

Figure 2 is a plan view of the same.

Figure 3 is a plan view of the bolt and nut.

Figure 4 is a perspective view of the metal plate fastened to the harrow.

The nature of my invention consists in the use of certain devices for holding harrow-teeth firmly in position, in the manner set forth.

A in the annexed drawing is one side of a harrow, with the teeth *b b* attached to it. In order to prepare a suitable bed for the upper part of the teeth to rest in, a vertical depression is made in the outer side of the harrow, (see fig. 2,) the said depression being made angular, so as to receive the teeth *b b* cornerwise.

d designates a metal plate, with two flanges at opposite sides, and bent inward at right angles. The said plates will be bent at their middle, so as to rest against the inner surface of the angular depressions above described.

An oblong opening will be made through each of plates *d*, for the purpose of receiving the head of the bolt *e*, as hereafter set forth.

e designates a screw-bolt, furnished at its end with a quadrangular head, the said head having an opening in it of the same shape, to receive the upper end of the harrow-teeth. The plates *d*, it will be remarked, will be secured in their place by bolts passing through their flanges.

In securing the teeth to the harrow, the teeth will be passed through the opening in the head of bolt *e*, until they reach near their upper end, where they will fit tightly in the bolt-head.

The bolt *e* will then be inserted through the metal-plate *d* and through a hole in the harrow, and there held immovably in place by screwing up the nut *g*.

Having thus described my invention,

What I claim, and desire to secure by Letters Patent, is—

The slotted metal-plate *d*, in combination with bolt *e*, tooth *b*, and notched beam *A*, all arranged and constructed substantially in the manner and for the purposes set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

GEORGE FRY.

Witnesses:

SANFORD BROWN,
THEO. S. JENKINS.