F. DYER.

HARROWS.

No. 193,756. Patented July 31, 1877.

Fig. 1.

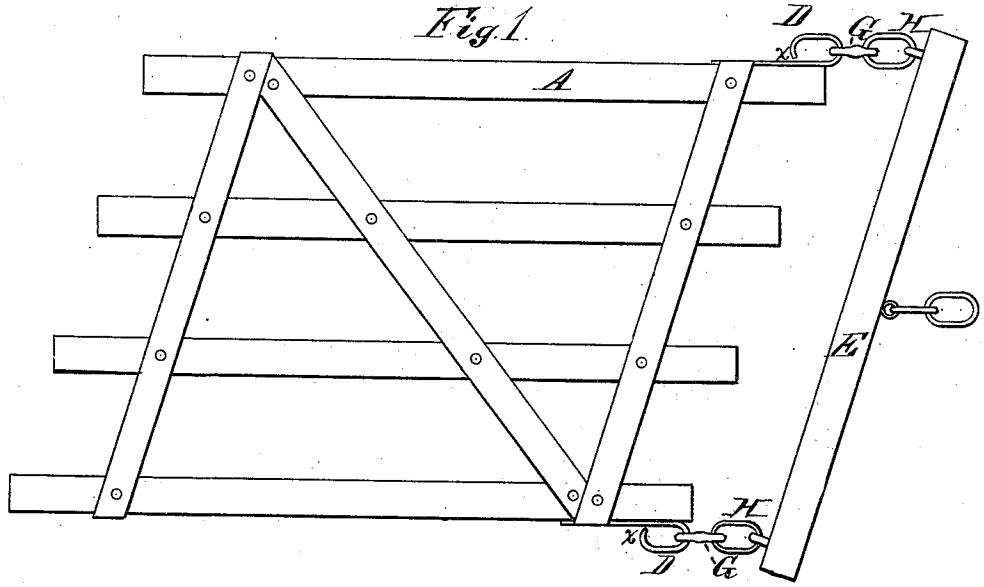


Fig. 2.

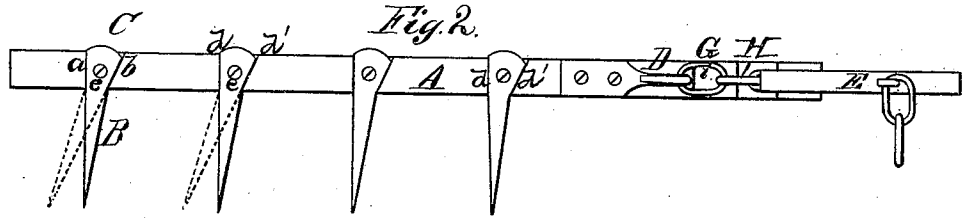


Fig. 3.

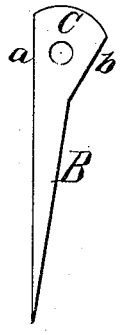
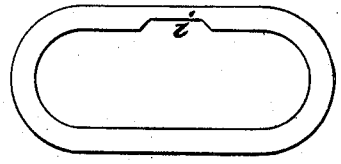


Fig. 4.



WITNESSES

Mary J. Utley.

Robert Everett.

INVENTOR.

Fayette Dyer.

Chipman, Goepel & Co.,

by Gilmore, Smith & Co.

ATTORNEYS

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FAYETTE DYER, OF ROCK FALLS, ILLINOIS.

IMPROVEMENT IN HARROWS.

Specification forming part of Letters Patent No. **193,756**, dated July 31, 1877; application filed March 25, 1876.

To all whom it may concern:

Be it known that I, FAYETTE DYER, of Rock Falls, in the county of Whitesides and State of Illinois, have invented a new and valuable Improvement in Harrows; and I do hereby declare that the following is a full, clear, and exact description of the contruction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a plan view of my harrow; and Fig. 2 is a side elevation of the same. Figs. 3 and 4 are detail views, showing a tooth of my harrow, also a link of the chain.

My invention relates to harrows; and it consists in the construction of the parts constituting a coupling for harrows, as will be hereinafter more fully set forth.

In the annexed drawings, A represents the frame of the harrow constructed in any of the known and usual ways. B represents a harrow-tooth, formed at its upper end with an enlargement or flat projection, C, which has one side *a* on a line, or nearly on a line, with that side of the tooth, while the other side *b* of said enlargement stands at an incline, as shown.

In the frame A is made a recess to receive the part C of the harrow-tooth, one side, *d*, of said recess being perpendicular, and the other side, *d'*, inclined. The projection C of the tooth fits in this recess, and is fastened by a single bolt, *e*. When the side *a* of the projection C and the side *d* of the recess coincide, the tooth will stand perpendicularly, but when the tooth is turned over so as to change sides, it will stand in a slanting position. Thus the harrow can easily and quickly be changed from a straight tooth to a slanting-tooth harrow, and vice versa.

On each side of the harrow-frame A, at the front end, is secured a hook, D, which has a narrow opening, *x*, at the rear, and to which hooks the draft-bar E, having a link, H, at each end, is coupled by links G O. The link G, which takes into the hook D, has a portion *i*, flattened, or otherwise reduced in thickness sufficiently to pass through the opening *x* of the hook, while the remaining portion of the link is too thick to pass through said opening. The reduced part *i* of the link may be formed by flattening the link at that point, or by rolling the iron smaller at a certain point, or in any other manner that will accomplish the desired object. By this means, while the harrow is easily and quickly coupled and uncoupled when desired, it cannot come uncoupled accidentally.

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

In a harrow, the combination, substantially as herein described, of the harrow-frame A, having at its front ends hooks D, with narrow openings *x* at their rear ends, the links G having reduced portions *i*, and the draft-bar E having links H, as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

FAYETTE DYER.

Witnesses:

E. BROOKFIELD,

HENRY P. PRICE.