

H. N. SWIFT.
Improvement in Harrows.

No. 130,451.

Patented Aug. 13, 1872.

Fig. 1.

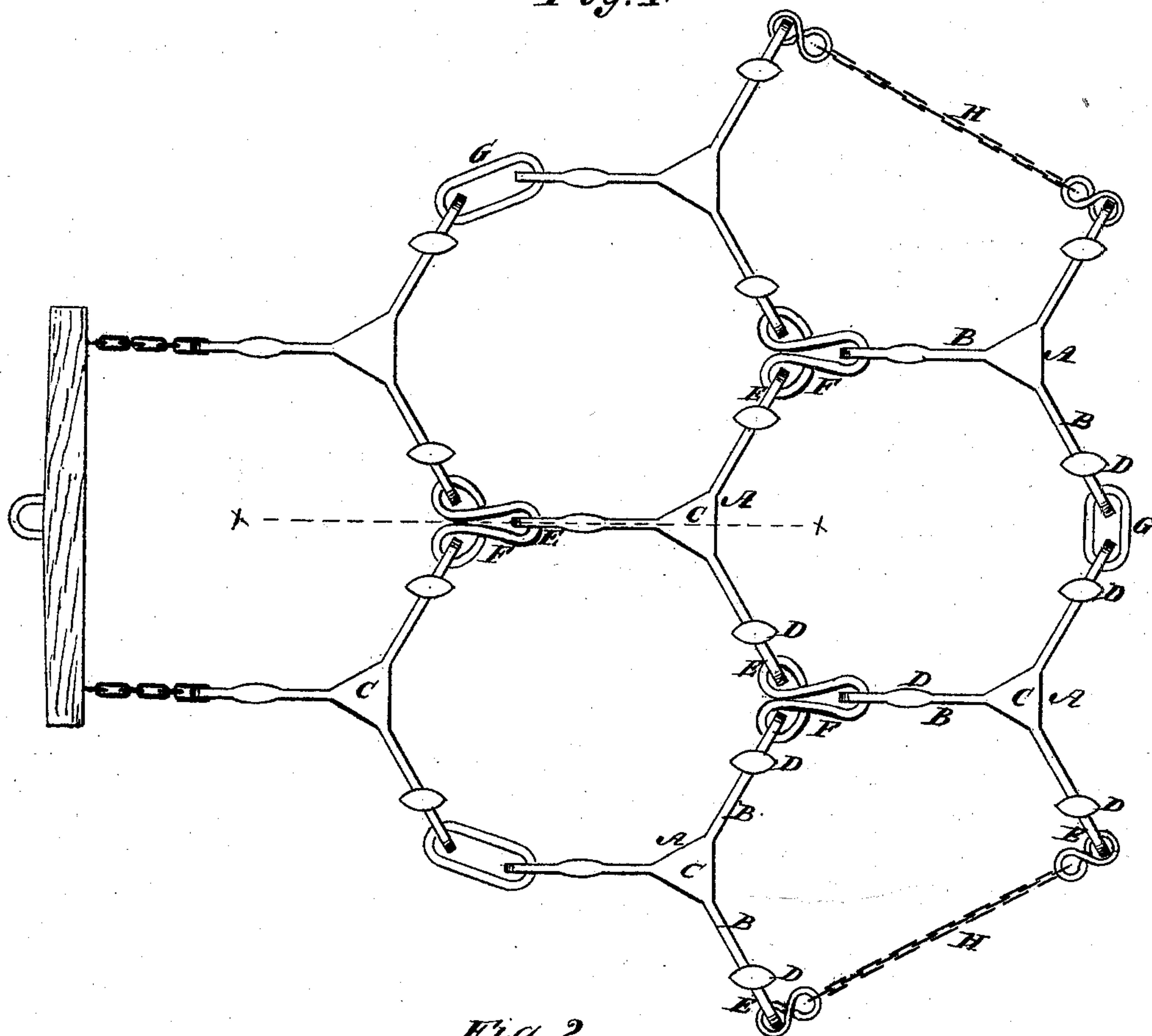


Fig. 2.

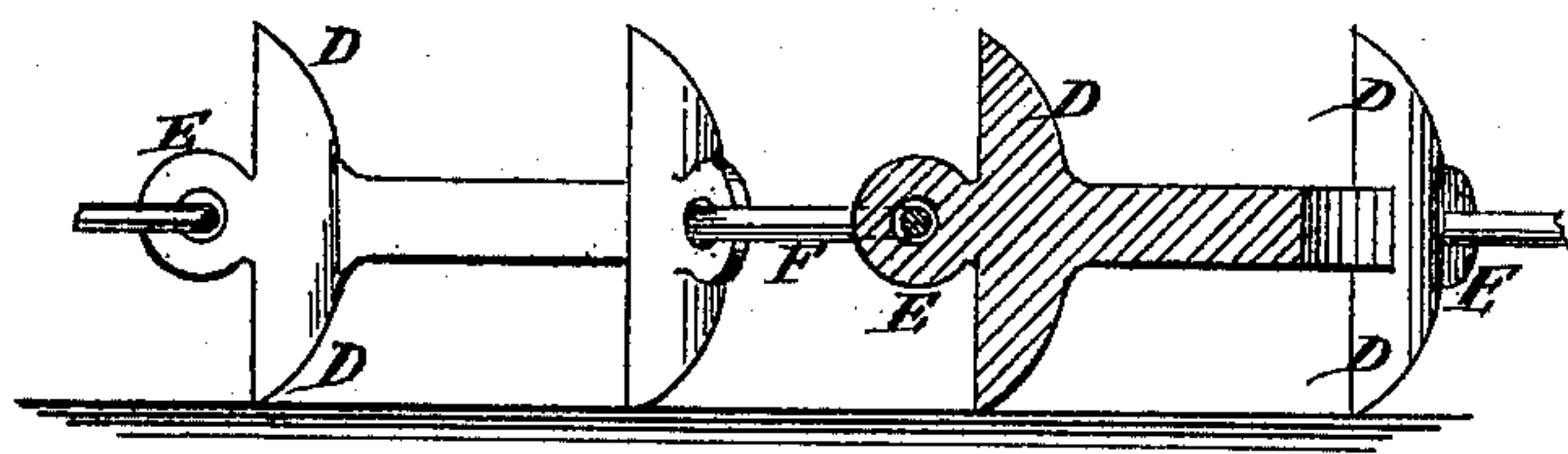
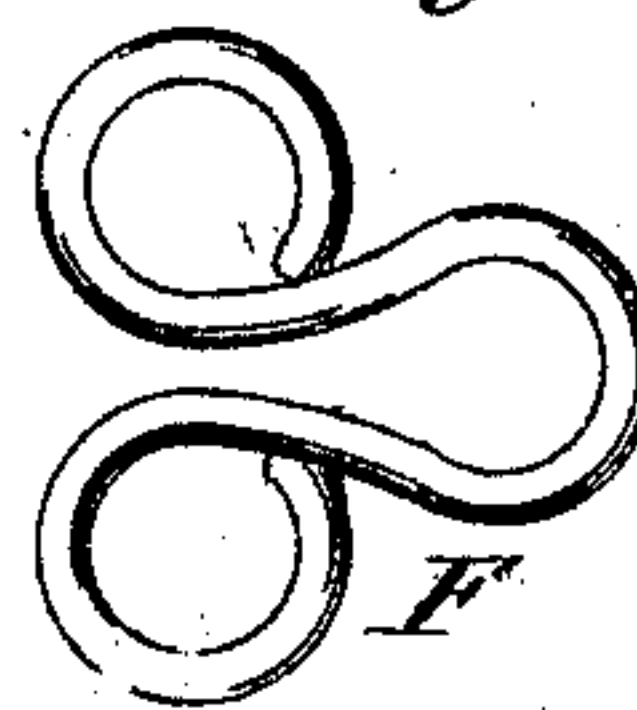


Fig. 3.



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HORATIO N. SWIFT, OF MATTEAWAN, NEW YORK.

IMPROVEMENT IN HARROWS.

Specification forming part of Letters Patent No. 130,451, dated August 13, 1872.

Specification describing a new and useful Improvement in Flexible Harrows, invented by HORATIO N. SWIFT, of Matteawan, in the county of Dutchess and State of New York.

This invention consists in the manner of attaching together the sections of the well-known flexible harrow, as hereinafter described.

Figure 1 represents a top view of the harrow. Fig. 2 is a vertical section taken on the line *x x*. Fig. 3 is a view of my improved link or connection detached.

Similar letters of reference indicate corresponding parts.

A represents the section of which the harrow is composed, being a series of triangular-shaped castings connected together. B are the arms, which radiate from the center C of each section. D represents the teeth, which are vertical bars of suitable length at the ends of the arms, and projecting above and below, as seen in the drawing, so that the harrow may be used either side up. Outside of each tooth is an eye, E, by means of which the sections are connected together to form a harrow.

Heretofore this connection has been made by means of round rings through the three eyes, which approach each other, as seen, but

it has been found that the sections, when connected by a ring in this manner, were liable to catch and cramp in turning the harrow, and cause much trouble in releasing and straightening out the harrow. To remedy this difficulty, I employ, instead of the round ring, the triangular connecting-link F, composed of a single piece of metal, but with a separate ring for each eye, as seen in the drawing. By this means the eyes of the sections are separated, so that in turning or twisting the harrow will not cramp, but assume its natural position without aid from the driver. These triangular links F are used only for the interior connections, the outer angles of the sections being connected by the common links G and chains H, as seen in the drawing.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination, of the link or connection F with the sections of a flexible harrow, as and for the purpose specified.

HORATIO N. SWIFT.

Witnesses:

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