

F. M. DAVISON.

HARROWS.

No. 190,833.

Patented May 15, 1877.

Fig. 1.

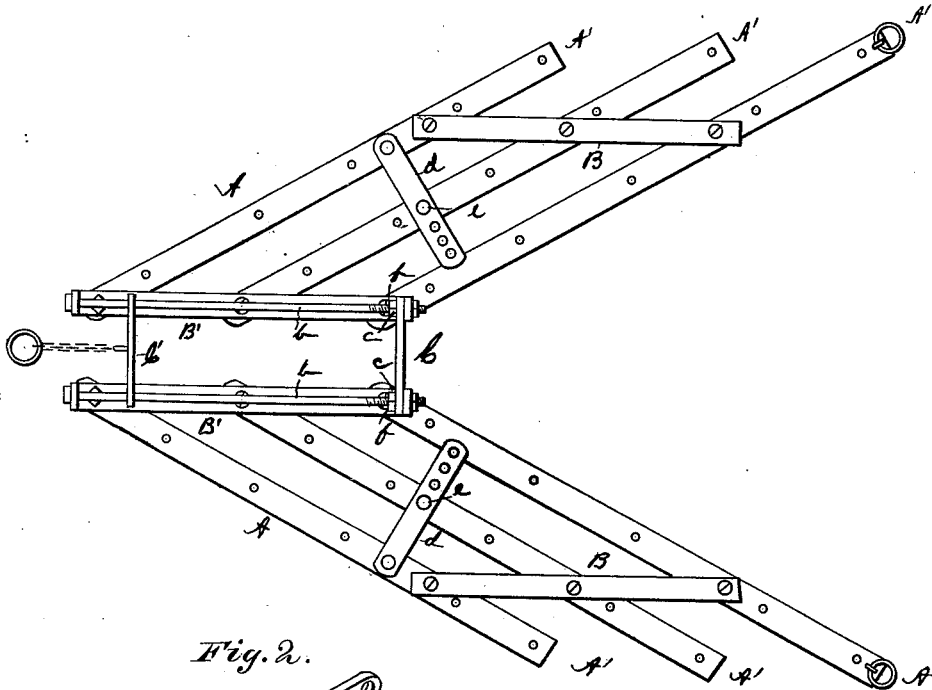
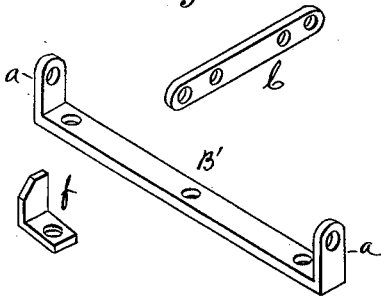


Fig. 2.



Witnesses.
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UNITED STATES PATENT OFFICE.

FRANCIS M. DAVISON, OF ROSE HILL, IOWA.

IMPROVEMENT IN HARROWS.

Specification forming part of Letters Patent No. **190,833**, dated May 15, 1877; application filed May 5, 1877.

To all whom it may concern:

Be it known that I, FRANCIS M. DAVISON, of Rose Hill, in the county of Mahaska and State of Iowa, have invented certain new and useful Improvements in Harrows; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain improvements in harrows; and consists in the special construction and arrangement of parts hereinafter set forth.

In order to enable others skilled in the art to which my invention relates to make and use the same, I will now proceed to describe its construction and operation, reference being had to the accompanying drawing, in which—

Figure 1 is a top or plan view of my improvement, and Fig. 2 shows detached parts thereof.

In the drawing, A A represent two wings of a harrow, which are constructed of any suitable material, and composed of three or more arms, A', which are held together by means of cross-bars B, attached to their outer ends, and B', attached to their inner ends, in any suitable manner, provided that the arms shall have a free horizontal movement.

The cross-bars B' have each end turned up, forming shoulders a, through which are inserted bolts b.

The wings A are held together by coupling-bars C and C', which are provided with two

or more holes for adjustment of the wings. The coupling C is held by nuts or shoulders e, while the coupling C' is allowed free movement upon the bolts b. The coupling C' has centrally attached thereto a draft-chain.

To the outer arm of each wing A are pivoted perforated stays d, in order that the wings may be horizontally adjusted and securely held by bolts e, which are passed through one of the holes in the stay and the middle arm of the wings, as shown.

In order to prevent the wings from coming together when harrowing irregular or hilly ground, I place stops f (shown in Fig. 2) under the coupling-bar C, which limits the upward and downward movement of the wings. The draft on the bar C' accomplishes the same result upon the forward part of the wings.

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

The couplings C and C', bolts b, and stops f, in combination with the wings A, having cross-bars B and B', the latter constructed with shoulders a, substantially in the manner and for the purpose set forth.

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

F. M. DAVISON.

Witnesses:

H. B. BROWN,
A. M. LONG.