D. L. JAQUES.

Harrows.

No. 137,926. Patented April 15, 1873.

Fig. 1.

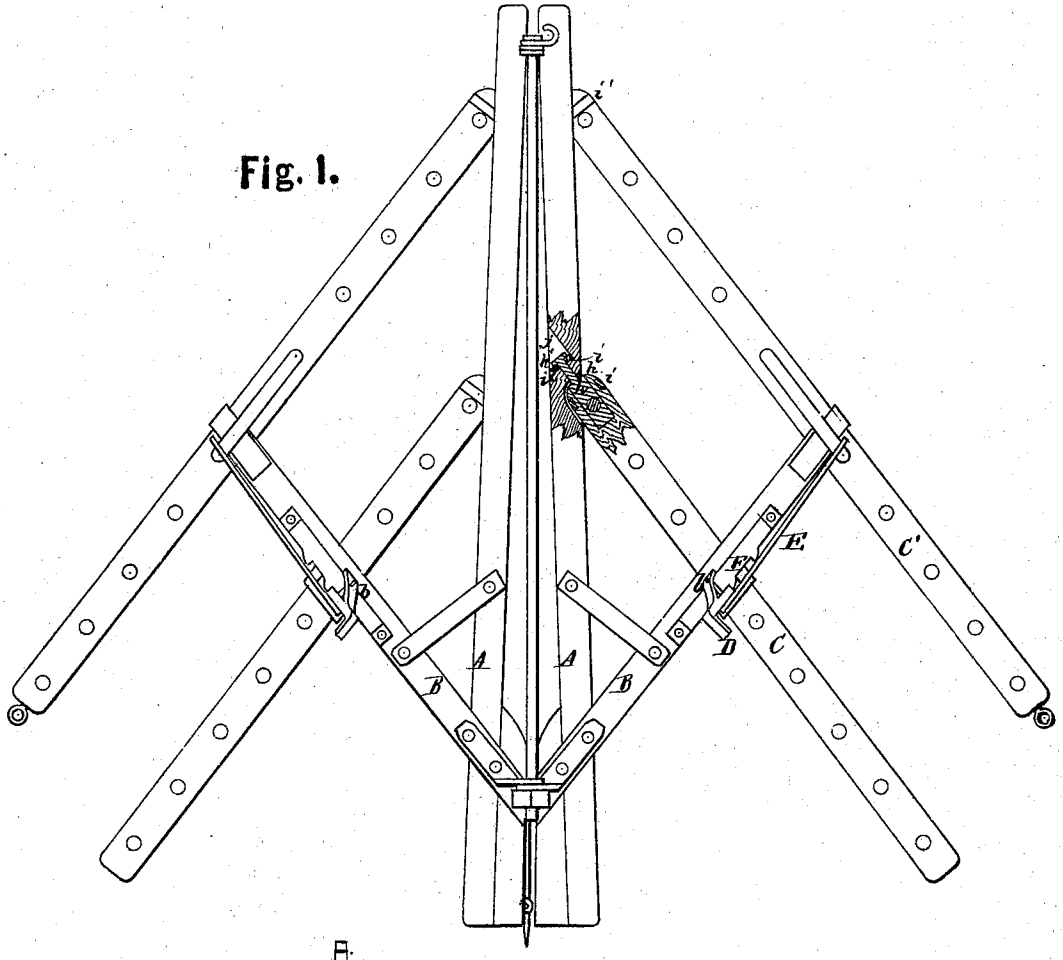
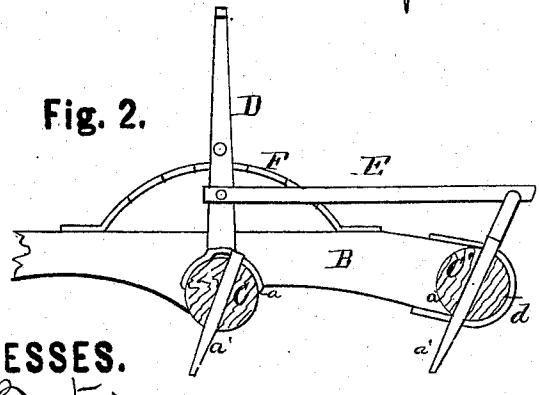


Fig. 2.



WITNESSES.

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DAVID L. JAQUES, OF HUDSON, MICHIGAN.

IMPROVEMENT IN HARROWS.

Specification forming part of Letters Patent No. **137,926**, dated April 15, 1873; application filed June 29, 1872.

To all whom it may concern:

Be it known that I, DAVID L. JAQUES, of Hudson, in the county of Lenawee and State of Michigan, 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 construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a top view of my invention. Fig. 2 is a sectional view in detail.

This invention has relation to harrows; and it consists in the construction and novel arrangement of the pivoted tooth-bars, and of the devices for adjusting the same; and it also consists in the construction and novel arrangement of the main frame of the harrow, all as hereinafter more fully described.

The harrow-frame is built in two triangular sections, with the longitudinal bars A thereof hinged together. To these bars are secured the oblique beams B, having each a semicircular socket, *a*, in its under side and another in its end to receive the round pivoted tooth-bars C C′, which are supported in said sockets by means of metal straps *d*. The pivoted ends of the toothed bars have their bearings in the bars A, from which said toothed bars extend back obliquely, as shown. To the bars C are attached the levers D, which are connected to staples of the bars C′ by means of arms E. By means of these levers the bars C C′ may be turned and the teeth *a′* set to any angle desired. Curved racks F attached to the bars B retain the levers at any point to which they may be adjusted, springs *b* being used to press and hold the levers in their appropriate notches when not under manipulation. The inner ends of the tooth-bars are rounded and enter recesses in the bars A. Pivot-bolts *h* secured to the ends of said tooth-bars and furnished with enlarged heads *h′* hold said ends in place. The heads of these pivots lie within angular recesses *j* formed in the inner surfaces of the bars A and rest against washers *i*. To prevent the end of the tooth-bar from splitting a band of metal, *i′*, may be put around it.

What I claim as new is—

The harrow tooth-bar C provided at its forward end with the swivel-bolt *h*, and furnished with an enlarged head, *h′*, adapted to fit in a recess, *j*, formed in the bar A, substantially in the manner as set forth.

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

DAVID L. JAQUES.

Witnesses:
L. R. PEIRSON,
G. C. WHITE.