E. MARTIN.

CORN-HARROW.

No. 187,398. Patented Feb. 13, 1877.

Fig. 1.

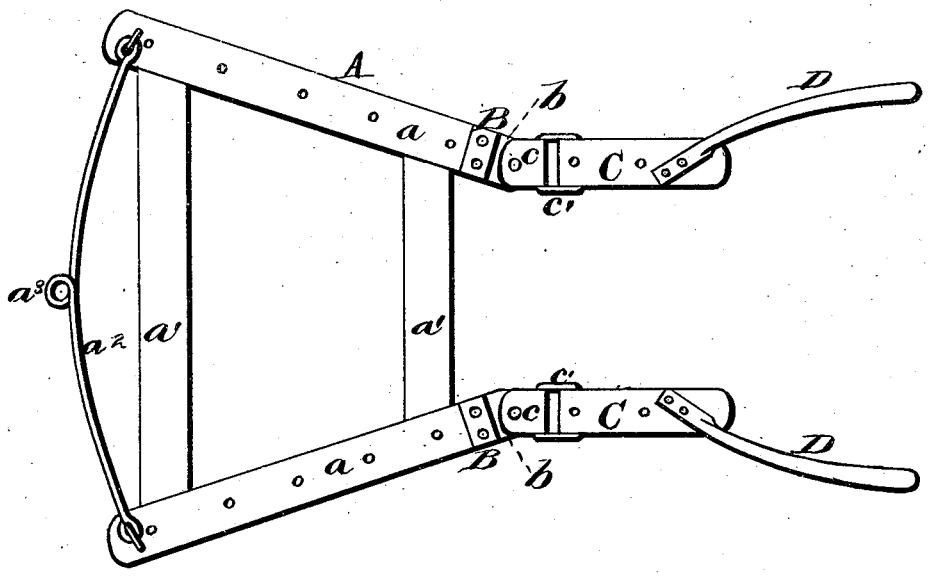
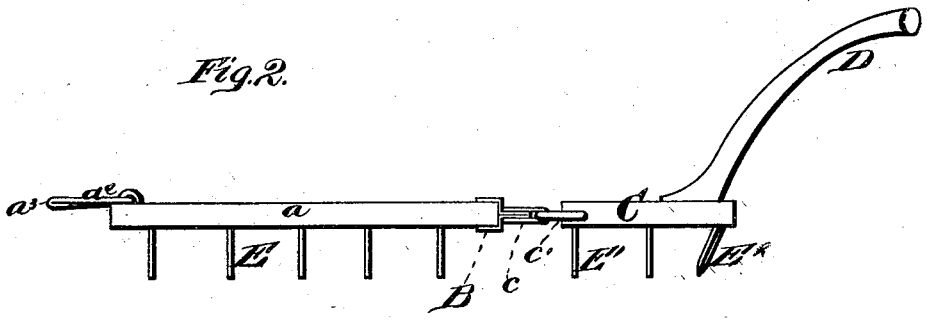


Fig. 2.



WITNESSES

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EZEKIEL MARTIN, OF MEMPHIS, MISSOURI.

IMPROVEMENT IN CORN-HARROWS.

Specification forming part of Letters Patent No. **187,398**, dated February 13, 1877; application filed January 6, 1877.

To all whom it may concern:

Be it known that I, EZEKIEL MARTIN, of Memphis, in the county of Scotland and State of Missouri, have invented a new and valuable Improvement in Corn-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 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 corn-harrow, and Fig. 2 is a side elevation of the same.

This invention relates to harrows used for the cultivation of Indian corn; and it consists in the construction and arrangement of the parts, substantially as and for the purpose hereinafter set forth.

In the annexed drawings, A designates the frame of a harrow, consisting of two rearwardly-converging side beams, *a a*, and two cross-bars, a^1 a^1. To the broad front of said frame is secured a draft-iron, a^2, provided at its middle with a loop or hook, a^3. Said side beams *a a* are not extended at the rear so as to complete a triangle, but are there provided with metal caps or plates B B, which have rearwardly-extending tongues or flanges *b b*. To each of said tongues *b* is pivoted a metal clip, *c*, so that said clip is capable of lateral motion; and to each of said clips *c* is pivotally attached an extension-piece or extension-beam, C, by means of a bent rod or stirrup, *c'*. Each of these two extension-beams C C is thus capable of being vibrated either laterally or vertically, on the double joint formed by the parts B *b c c'*; and to facilitate such movement each of said extension-pieces C is provided with an outwardly-curving handle, D, the shape of which is shown conjointly by Figs. 1 and 2. The under side of beams *a a* is provided with harrow-teeth E, (shown in Fig. 2,) and extension-beams C are provided with similar teeth E^1. Instead of the rear tooth in each one of said extension-pieces, a knife or shovel, E^2, may be substituted.

The loose attachment of extension-pieces C makes it possible to swing them sidewise across the rows of corn, for the purpose of hilling them or stirring the ground between the hills without disturbing the frame A, which straddles the row, and cultivates the spaces between said row, and the nearest row on each side. The vertical pivotal movability of said pieces or extension-beams C allows either or both of them to be raised for the purpose of cleansing, or whenever such motion may be desired.

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

A harrow-frame consisting of two rearwardly-converging side beams, *a a*, and cross-bars a^1 a^1, in combination with vertically and laterally vibrating extension-pieces C C, which are provided at their rear ends with diverging handles D D, substantially as described, 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.

his
EZEKIEL × MARTIN.
mark.

Attest:
T. W. MESSNER,
E. SCOFIELD,
W. F. SEAVER.