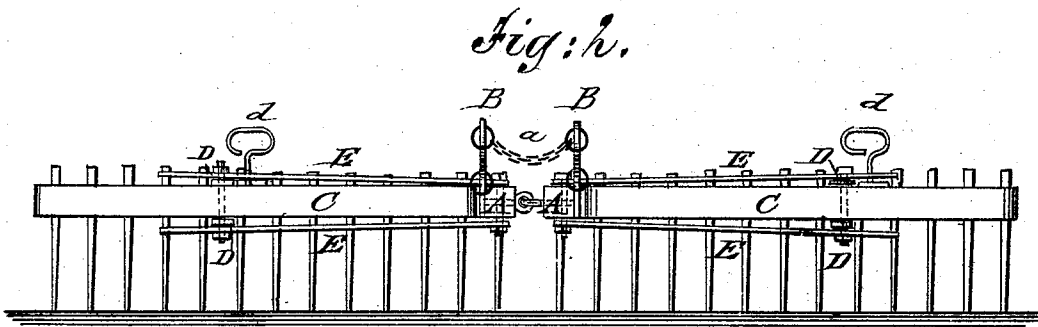
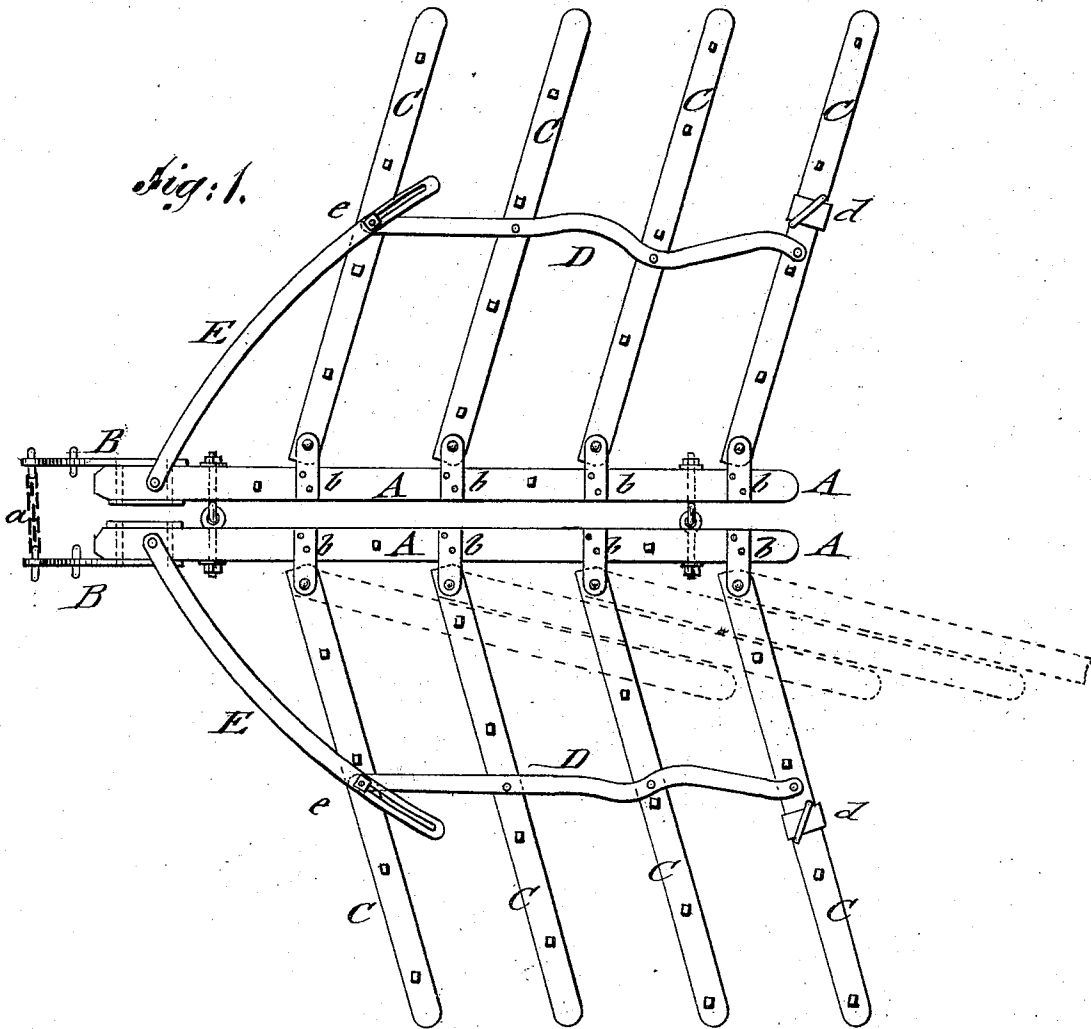


H. MEILI.
HARROW.

No. 170,637.

Patented Nov. 30, 1875.



WITNESSES:

Chas. N. Dag.
A. J. Perry

INVENTOR:

H. Meili
BY *mm*
ATTORNEYS.

UNITED STATES PATENT OFFICE

HENRY MEILL, OF YELLOW STONE, WISCONSIN.

IMPROVEMENT IN HARROWS.

Specification forming part of Letters Patent No. **170,637**, dated November 30, 1875; application filed September 11, 1875.

To all whom it may concern:

Be it known that I, HENRY MEILL, of Yellow Stone, in the county of La Fayette and State of Wisconsin, have invented a new and Improved Harrow, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a top view, and Fig. 2 a front elevation, of my improved harrow.

Similar letters of reference indicate corresponding parts.

The present invention relates to certain improvements in folding harrows; and it consists in the combination of front guard and lock-bars with the central bars and pivoted toothed bars, as will be hereinafter more fully described.

In the drawing, A represents the central parallel main pieces or bars, which are suitably hinged together to connect the symmetrically-constructed harrow-sections. The central bars A are provided at their front ends with upwardly-curved metallic draft-pieces B, of suitable height, that are connected at their ends by a lateral chain, *a*. The draft-pieces B serve for the purpose of transmitting the draft equally to each bar, so that when either harrow-section is raised, for avoiding obstructions or other causes, the other section works with the same facility without being lifted off the ground, and endangers thereby the animals or the driver. The draft, being applied to the draft-pieces B, tends to keep the teeth in the ground without lifting the central bars, and produces the uneven and unreliable working of the harrow. The toothed bars C are pivoted to plates *b* of the central bars, and swing in parallel direction to each other symmetrically at both sides of the central axis of the harrow, the teeth being so applied that each runs separately and equidistantly from the other, so as to rake the ground thoroughly at whatever angle bars C may be set toward the

center. The parallel position of the toothed bars C is secured by longitudinal pieces D, which are pivoted to the upper and lower side of bars C, and curved in such a manner that the bars may be closely folded up without being hindered by the teeth coming in contact with connecting-pieces D. The rear bars C have handles *d*, by which either harrow-section may be readily lifted from the ground, as required, to avoid stumps or other obstructions. The central bars are also provided with teeth that fill up the intermediate distance between the teeth of the swinging bars C. The front ends of the central bars A are connected to the swinging front bars C by pivoted double lock-bars E, which are slotted at the ends applied to the toothed bars, to be adjusted to the open or more or less folded position of the bars by clamping-screws *e*. The lock-bars E, being arranged at the front of the harrow, serve also as guard-pieces to carry the harrow-sections over obstructions, exposing thereby the teeth in a less degree to violent shocks and injury.

The toothed bars may be swung out to considerable width, and after use be folded toward the central bars, taking up a small space for being readily placed on a wagon for transportation to and from the fields.

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

The combination of the lock and guard bars E E with the central beams A A, toothed pivoted bars C, and connecting-bars D D, said bars E E being pivoted to the beams A A near their front or draft ends, and connected with the bars C, as and for the purpose set forth.

HENRY MEILL.

Witnesses:

JACOB SCHNEBERGER,
WILLIAM T. HENRY.