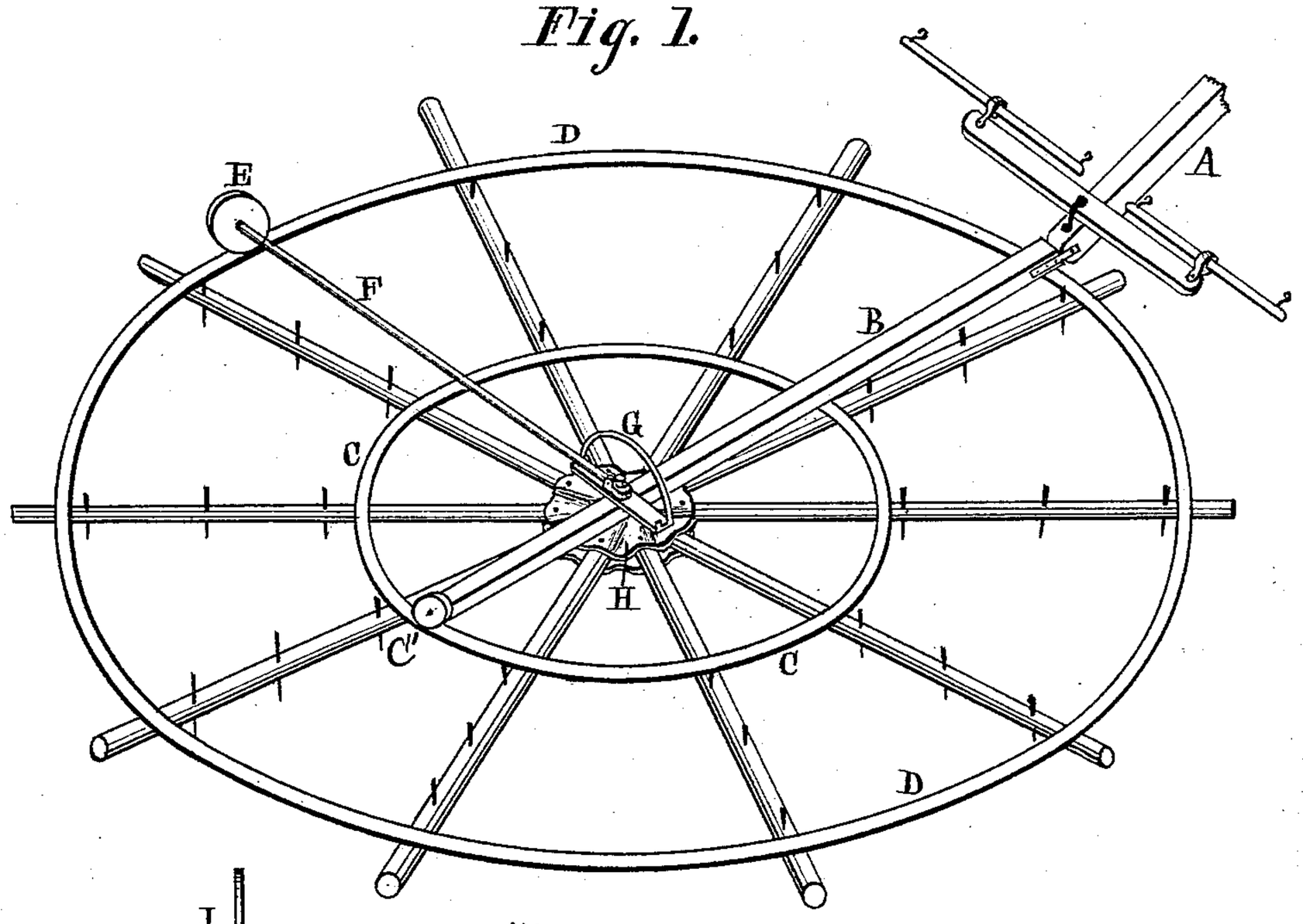
J. F. MORSE.

Rotary-Harrows.

No. 148,619. Patented March 17, 1874.

Fig. 1.



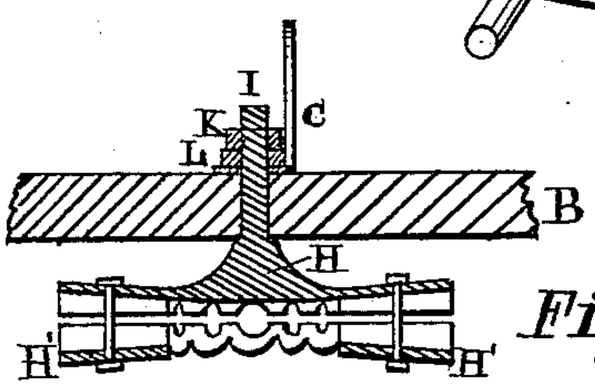


Fig. 2.

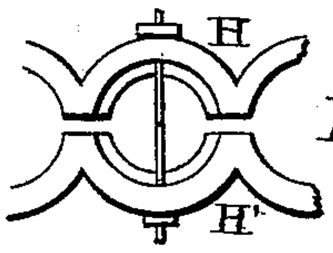


Fig. 3.

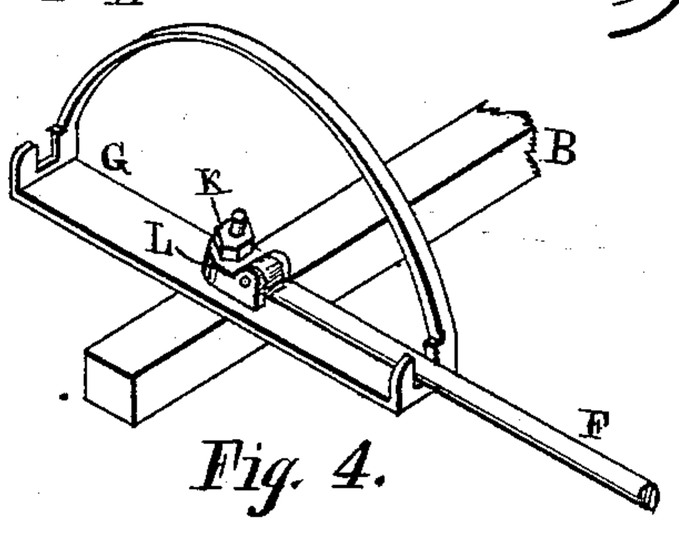


Fig. 4.

Witnesses,

C. Palmer

H. W. Palmer

Inventer,

John F. Morse

UNITED STATES PATENT OFFICE.

JOHN F. MORSE, OF OSHKOSH, WISCONSIN.

IMPROVEMENT IN ROTARY HARROWS.

Specification forming part of Letters Patent No. **148,619**, dated March 17, 1874; application filed October 16, 1873.

To all whom it may concern:

Be it known that I, JOHN F. MORSE, of Oshkosh, in the county of Winnebago and State of Wisconsin, have invented certain Improvements in Rotary Harrows, of which the following is a specification:

My improvements consist in the horizontal transfer of the weight, in combination with a notched catch-plate, for holding it in place. The weight is attached to a double hinged arm, and it to the central spindle, and is held in place on either side of the harrow by notches on each end of a central catch-plate.

Figure 1 is a perspective view of a rotary harrow with my improvements attached. Fig. 2 is a vertical cross-section of the hub and its attachments. Fig. 3 is an elevation of one of the sockets in the hub. Fig. 4 is a perspective view of the catch-plate.

C is the inner circle, which serves as a bearing for the roller C′ on the rear extension of the draft-beam, to prevent the harrow from rising. The outer circle is traversed by the weight-wheel E revolving on the arm F, which is held in place on either side by the catch-plate G, attached to the draft-beam B. This weight-wheel may be reversed by seizing the outer end of the arm F, lifting it out of the catch, and moving it horizontally around the outer circle D to the opposite side, where it is received automatically by the catch at that end of the plate, and held in place as before. The arm F is hinged to its journal-box L, which is slipped onto the spindle I, and, with the draft-beam B, is held in place by a nut, K. The hub is composed of an upper and a lower plate. H is the upper plate, the spindle I being cast solid with it. H′ is the lower plate, which is fastened to the upper plate by bolts passing through the sockets and the end of the spokes. The sockets thus formed are in the form of truncated cones.

In constructing the harrow, the spokes are to be driven into the sockets, so that the plates H and H′ shall be one-quarter of an inch (more or less) apart, so that if the timber shrinks, or the spokes become loosened by use, they can be tightened both vertically and laterally by drawing up the nuts on the bolts that connect the plates.

I do not claim a reversible weight, as such, but the means or mechanism of its reversion.

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

In a rotary harrow, the weight-wheel E and double hinged arm F, in combination with central catch-plate G, substantially as and for the purposes set forth.

JOHN F. MORSE.

Witnesses:
C. PALMER,
W. W. POLMAN.