J. B. GLASCOCK.

Revolving Harrow.

No. 17,831. Patented July 21, 1857.

Fig. 1.

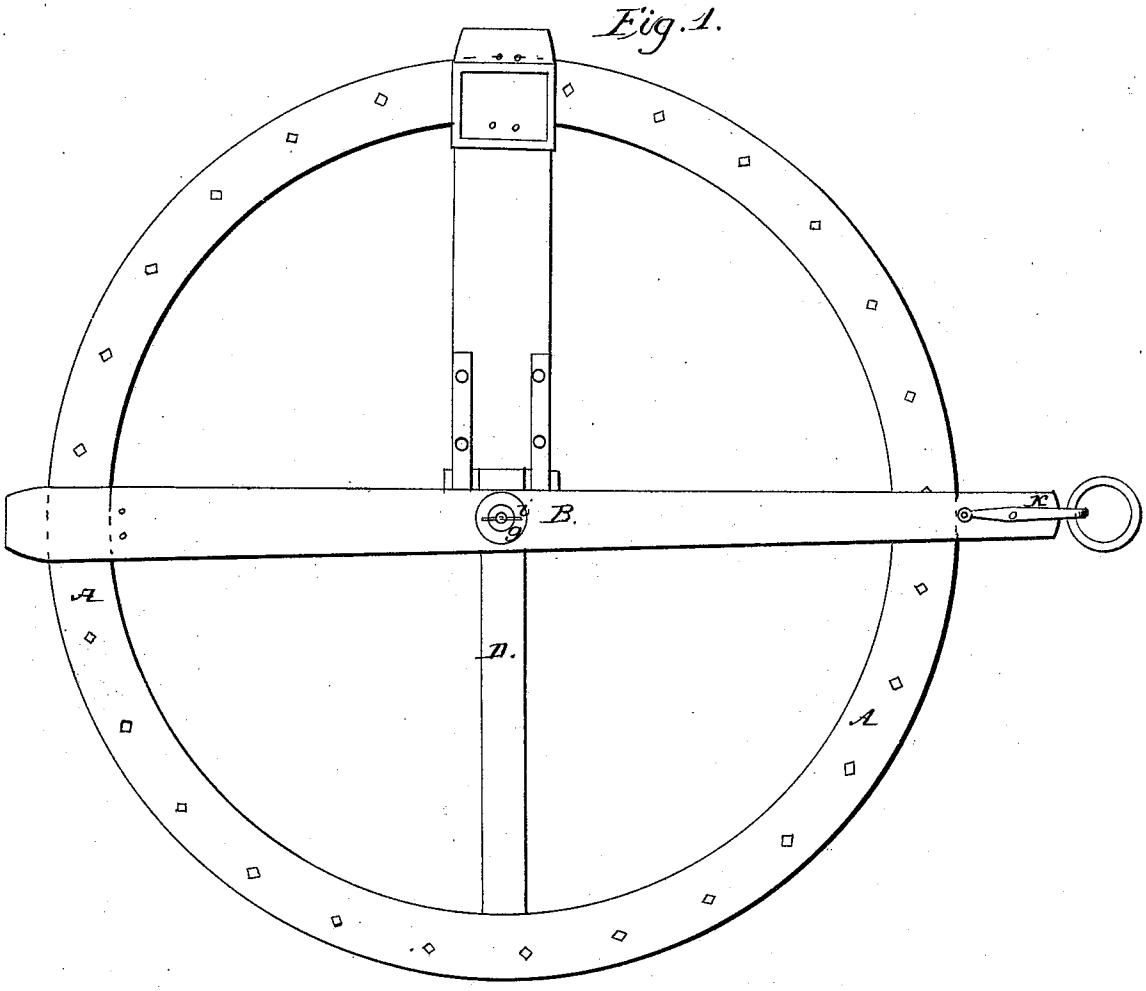
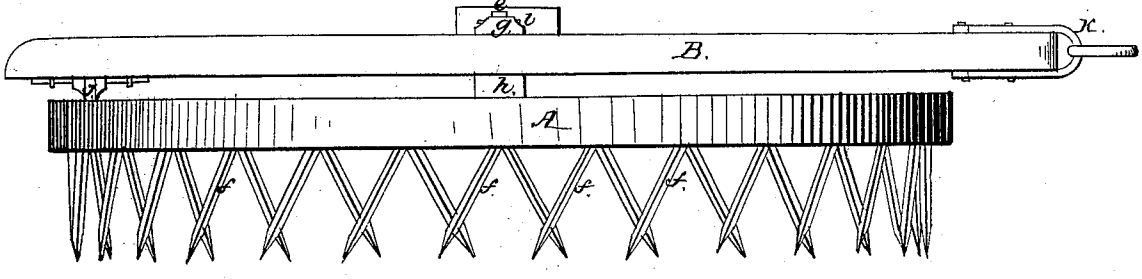


Fig. 2.



N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES B. GLASCOCK, OF FANCY CREEK, ILLINOIS.

IMPROVEMENT IN ROTATING HARROWS.

Specification forming part of Letters Patent No. **17,831**, dated July 21, 1857.

To all whom it may concern:

Be it known that I, JAMES B. GLASCOCK, of Fancy Creek, in the county of Sangamon and State of Illinois, have invented a new and useful Improvement in Rotating Harrows; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification—

Figure 1 being a top view of my improved harrow, and Fig. 2 a side elevation of the same.

Similar letters indicate the same parts in each drawing.

The annular tooth-frame A may be made of any suitable material and in any proper manner. The teeth *f* may be so secured in said frame as to descend vertically, or they may incline to any desired degree. Transverse spoke-bars D, which are halved together at their centers, are framed into the inner periphery of the tooth-frame, or are otherwise securely combined with said tooth-frame. A strong fulcrum-journal, *e*, passes through the connecting-joint of the transverse bars D, precisely in the center of the tooth-frame, and is firmly secured in said position. The thick washer *h*, which embraces the fulcrum-journal *e* and rests upon the connecting-joint of the spoke-bars D, supports the weight of the draft-bar B. An upper washer, *g*, on the said fulcrum-journal, and the pin *i*, passing through the same, prevent the draft-bar from being drawn from its position during the forward movement of the harrow; or the same effect may be produced by any other suitable device. The after end of the draft-bar B extends rearward to or a little beyond the outer periphery of the tooth-frame A, and the spindle of an anti-friction roller, *j*, is secured in proper bearings to the rear portion of said draft-bar in such a position that the periphery of said roller will bear upon the upper surface of said tooth-frame.

My invention consists in causing the after end of the draft-bar B to bear upon the upper surface of the rotating tooth-frame A, and this invention has been the result of a practical necessity which has been revealed to me by experiments with a full-sized harrow. With this description of harrow the power must be applied to the fulcrum-journal *e*, and this point being so far back of the front operating-teeth of the harrow, it will readily be perceived that there must be a constant tendency to throw upward the rear side of the rotating tooth-frame, and to correspondingly depress the front side of said frame, thereby causing an unsteady halting movement of the harrow, which produces a very severe strain upon the fulcrum-journal and the harrow-teeth, as well as upon every other portion of the harrow.

With a full-sized harrow I have found it impossible to make the fulcrum-journal stiff enough to withstand this severe strain upon it; but by extending the draft-bar to the rear and causing its after end to bear upon the upper surface of the rear side of the rotating tooth-frame the fulcrum-journal is relieved from its excessive strain, and the harrow rotates steadily and evenly and with much less strain upon every part of the harrow, while at the same time the efficiency of its harrowing action is greatly increased.

I am aware that a patent has been granted for combining a weighted lateral arm with the draft-bar of a rotating harrow for the purpose of causing the harrow to have a positive rotary movement when it is drawn forward, and therefore I wish to be understood that—

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

Causing the after end of the pivoted draft-bar to bear upon the upper surface of the rotating tooth-frame in such a manner as to properly distribute the propelling-power exerted upon said draft-bar, by which I relieve the fulcrum-journal from injurious warping strains, and at the same time impart a steady and uniform movement to said tooth-frame as it is drawn forward, substantially as herein set forth.

The above specification of my new and useful improvement in rotating harrows signed and witnessed this 15th day of June, 1857.

JAMES B. GLASCOCK.

Witnesses:

GEORGE W. ADAMS,
Z. C. ROBBINS.