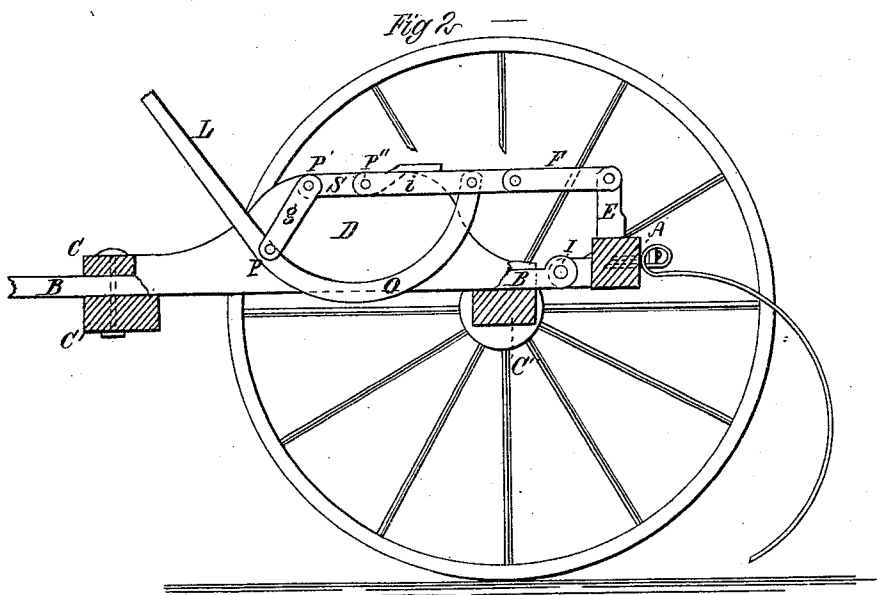
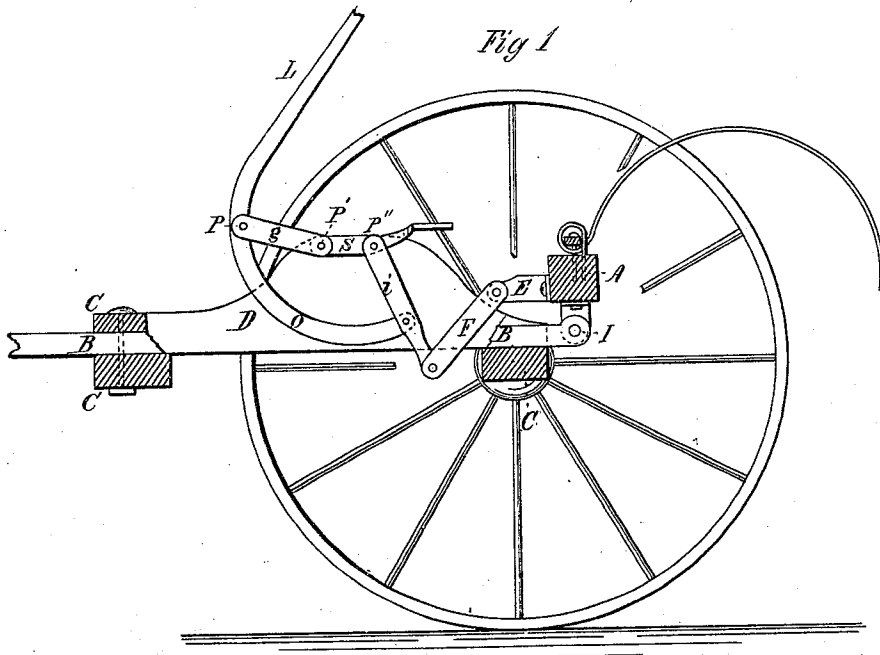


J. H. WALKER.
Horse Hay-Rakes.

No. 141,684.

Patented August 12, 1873.



Witnesses.

Inventor.

Cyrus B. Stevens
Edward Jaggard

Joseph H. Walker.

UNITED STATES PATENT OFFICE.

JOSEPH H. WALKER, OF GRAND RAPIDS, MICHIGAN.

IMPROVEMENT IN HORSE HAY-RAKES.

Specification forming part of Letters Patent No. **141,684**, dated August 12, 1873; application filed January 13, 1873.

To all whom it may concern:

Be it known that I, JOSEPH H. WALKER, of Grand Rapids, Kent county, Michigan, have invented certain new and useful Improvements in Horse Hay-Rakes, of which the following is a full and sufficient specification, reference being had to the accompanying drawing and letters of reference marked thereon, in which—

Figure 1 is a side elevation of rake when dumped. Fig. 2 is also a side elevation of same while raking.

My invention consists in partially rotating the rake-head by means of a double lock-lever with movable fulcrum, operating in such a manner that the teeth are secured down or up by means of self-acting locks, as hereinafter more fully described.

To enable those who are skilled in the mechanical branch to which it belongs fully to understand and construct my invention, I will now proceed to describe it.

My invention applies to that class of horse-rakes which discharges its accumulated load by the driver unlocking and partially rotating the rake-head, thereby tilting upward the rake-teeth and dumping the hay in windrows.

A represents central portion of rake-head. B shows the shaft-bar in section. C C' C'' are three wooden cross-bars, which connect the shafts and support the driver's seat. D is farther side of lever guide and support, the

other side being omitted to better show the lever and attachments. I is a cast-metal journal bolted to the axle, for attaching thereto the thill. E is an arm of the rake-head A, which arm is connected with the lever L by means of the links F and i. P P' P'' are fulcrum-pins, P' being stationary and principal. S is a stationary link and stop between movable fulcrum g and link i.

A backward movement of hand-lever L on movable fulcrum P over stationary fulcrum P' draws downward and forward rear end of link i and front end of link F, thereby partially rotating and securely locking rake-head A, as shown in Fig. 1. A forward movement of hand-lever L readjusts and firmly locks the rake-head A, as shown in Fig. 2.

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

1. The hand-lever L, with flexure O, movable fulcrum g, link i, stationary link and stop S, guide D, and link F, in combination with head A and arm E, all constructed and operating substantially as set forth.

2. The hand-lever L, with its flexure O and movable fulcrum g, link i, and stationary link and stop S.

JOSEPH H. WALKER.

Witnesses:

CYRUS B. STEVENS,
EDWARD TAGGART.