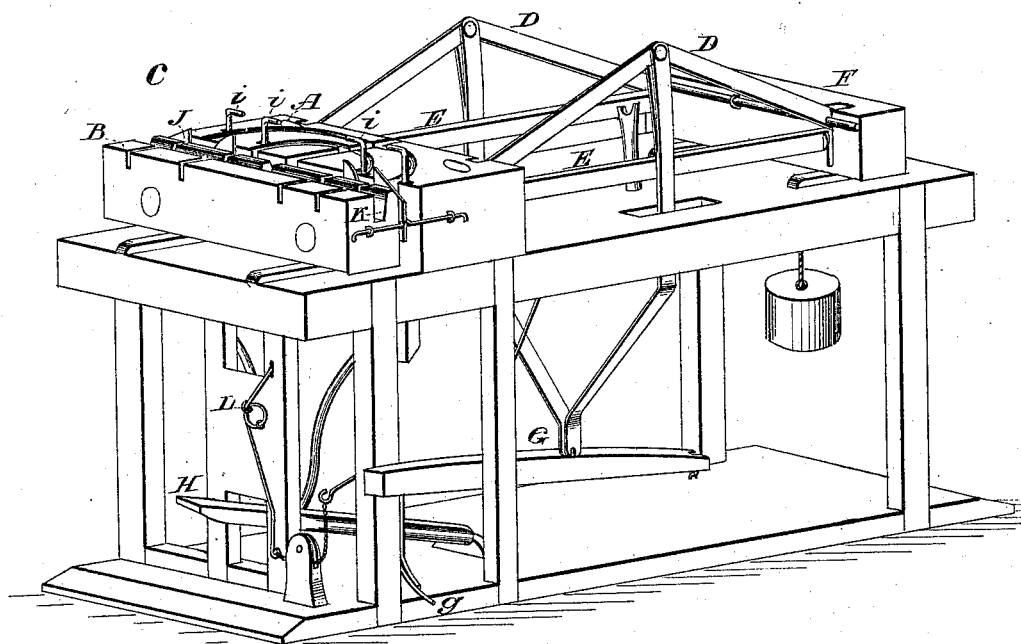


N. B. HOLCOMB.  
Machine for Constructing Hand-Rakes.  
No. 203,732.      Patented May 14, 1878.



*Attest:*

*J. Warden*  
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# UNITED STATES PATENT OFFICE.

NORTON B. HOLCOMB, OF GENEVA, OHIO.

## IMPROVEMENT IN MACHINES FOR CONSTRUCTING HAND-RAKES.

Specification forming part of Letters Patent No. **203,732**, dated May 14, 1878; application filed March 18, 1878.

*To all whom it may concern:*

Be it known that I, NORTON B. HOLCOMB, of the village of Geneva, county of Ashtabula, and State of Ohio, have invented a new and useful Improvement in Machines for Constructing Hand-Rakes, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing.

The object of my invention is to rapidly put together the head, bows, and handle of hand-rakes.

The machine is illustrated in detail in the perspective view in the drawing.

A is the form for receiving bows and handle of the rake. B is the head-block for receiving the head of the rake. C is a face-plate, of iron, with funnel-shaped openings on the side next the form A, to receive the bows and guide them into the holes in the head of the rake. K is a groove between head-block B and face-plate C to receive the rake-head. D D are elbows, by which the head is drawn on. E E are iron rods, with nuts outside the tail-block F, for adjusting the position of the head-block B as variations in the form of the head are required.

G is the lever by which the elbows D D are operated in drawing on the rake-head. H is a lever for operating the bow-hooks *i i*.

The rake-handle, with the bows, is placed in the form A and lever H forced downward, and the bows drawn into their places by hooks *i i* operated thereby, and held firmly by spring-latch L until lever G is pressed down, moving

along the face of a cam-lever, *g*, connected with latch L, and thereby moving the latch and liberating lever H. Hooks *i i* are thereupon thrown upward by springs acting under the bar connecting the hooks at their lower ends, leaving the rake free to be taken out of the form.

The elbows D D may be fastened at either end by a hinge or staple.

By taking out the two screws and hooks *i i* the top half of the form A may be removed and replaced by another form of different size and proportions for the purpose of making a variety of forms of rakes. Plate C may be taken off and another plate substituted to correspond with the form used.

Lever G may be raised by a weight suspended by a cord attached to the lever, passing over pulleys on the under side of the table of the machine.

A movable plate, J, is used between form A and plate C to assist in guiding the bows into the funnel-openings in plate C.

I claim as my invention—

The combination of the form A, head-block B, face-plate C, elbows D D, rods E E, levers G and H, hooks *i i*, movable plate J, latch L, and cam-lever *g*, constructed, combined, arranged, and operated substantially as described in the foregoing specification.

NORTON B. HOLCOMB.

Witnesses:

DENNIS THORP,  
WM. M. EATON.