

E. W. TUCKER.  
Revolving Horse Hay-Rakes.

No. 147,199.

Patented Feb. 3, 1874.

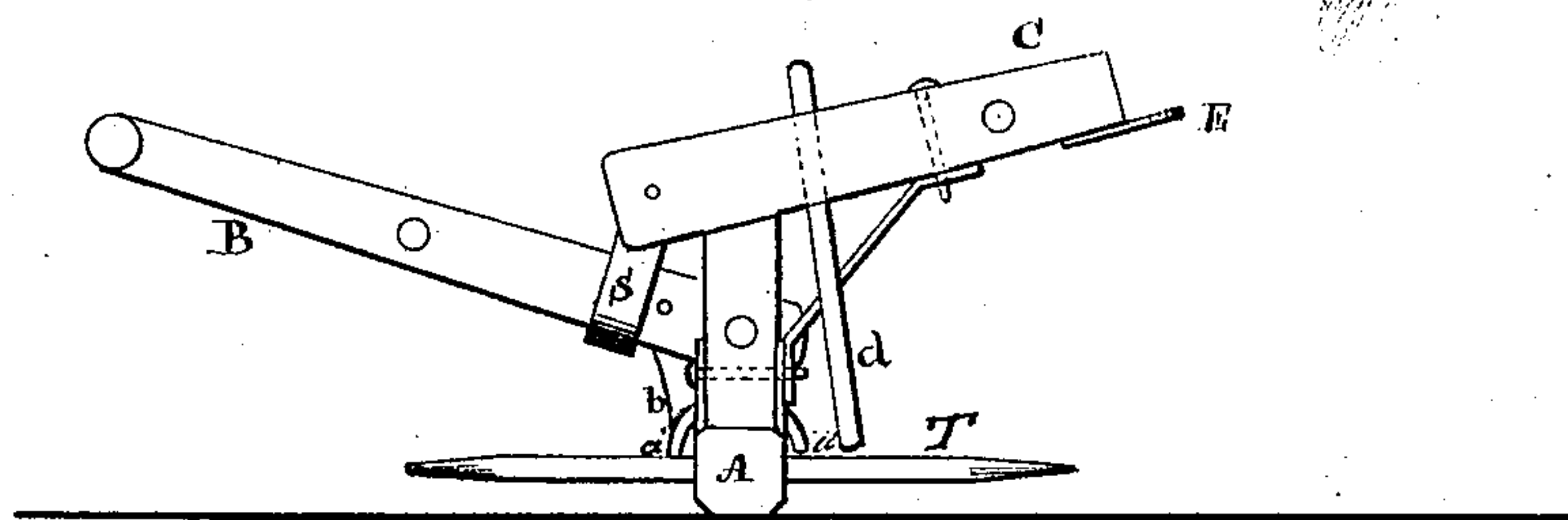


Fig. 1.

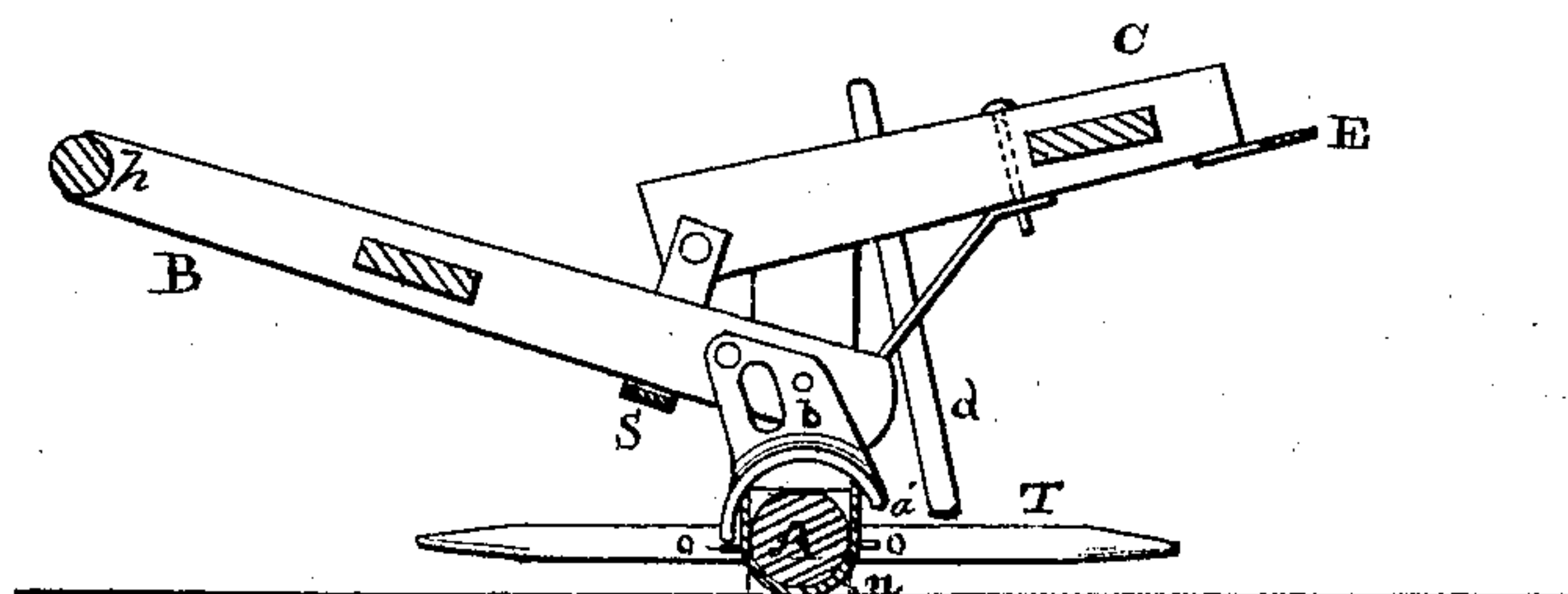


Fig. 2.

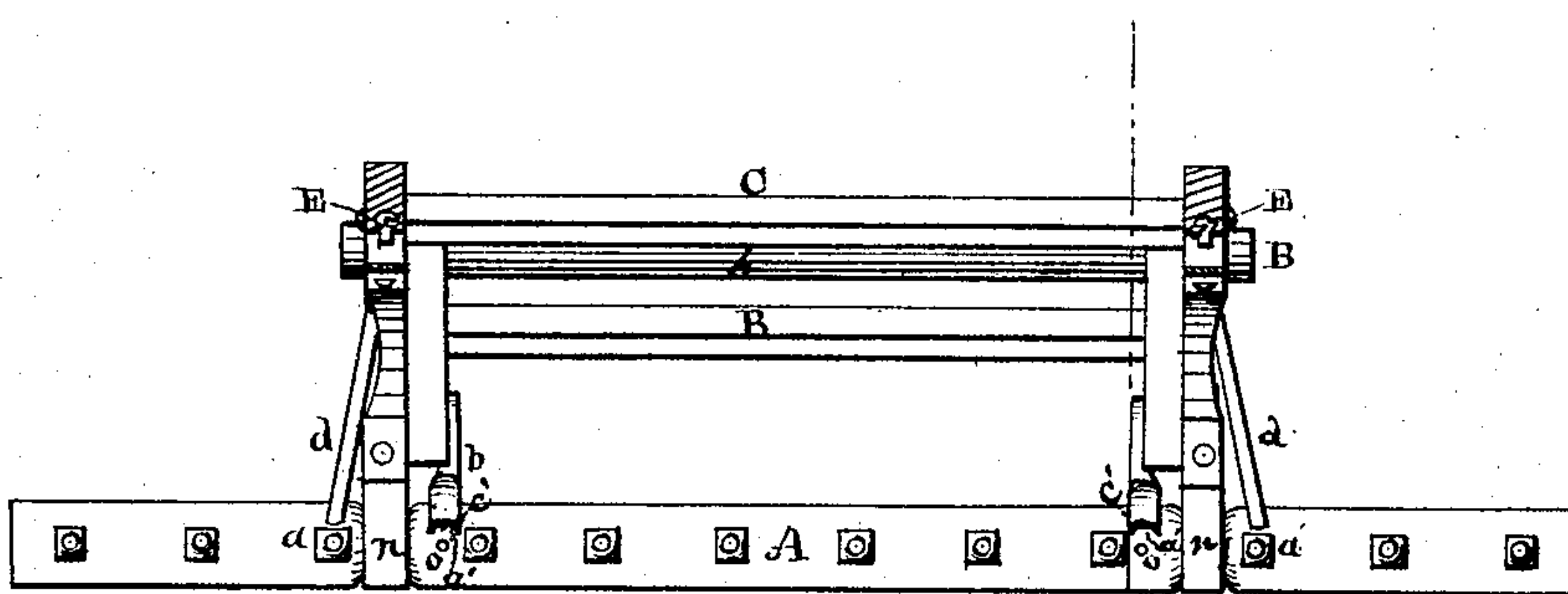


Fig. 3.

Witnesses,

Wm. H. Brown

Inventor,

Erwin W. Tucker

# UNITED STATES PATENT OFFICE.

ERWIN W. TUCKER, OF GRAND HAVEN, MICHIGAN.

## IMPROVEMENT IN REVOLVING HORSE HAY-RAKES.

Specification forming part of Letters Patent No. **147,199**, dated February 3, 1874; application filed March 7, 1873.

*To all whom it may concern:*

Be it known that I, ERWIN W. TUCKER, of Grand Haven, in the county of Ottawa and State of Michigan, have invented certain Improvements in that class of Horse - Rakes known as "Revolving Rakes," of which the following is a specification:

My invention relates to improvements in revolving horse hay-rakes; and consists in the employment of brackets attached to the lower ends of the handle-frame, said brackets being provided with grooves in their under surfaces, terminated by notches, in which stops on the rake-head operate, the stops resting in the notches in the operation of raking, and being guided and held in the grooves in the brackets as the rake-head revolves, so that the rake-head and handle-frame are at all times bound together, and lateral play of these parts in a great degree prevented.

Figure 1 is a side view of my revolving horse-rake. Fig. 2 is a cross-section, and Fig. 3 is an elevation, of the same.

In the accompanying drawings, A is the rake-head, provided with teeth T T, which extend on both sides of the rake-head, and stops o o. C is the draw-frame, having metallic loops n n at the lower ends of its vertical standards, which encircle the rake-head, and allow the latter to revolve upon the draw-frame. d d are wooden spring-stops, which are at-

tached to the draw-frame, and press upon the rake-teeth to hold them down to their work. B is the handle, to the inner ends of the side bars of which are attached brackets b b, having grooves c' c', (see Fig. 3,) on the under surfaces of their lower ends, in which ride the stops o o, when the handle is elevated to cause the rake to revolve. a' a' are notches, which are situated at the ends of the grooves c' c' in the lower faces of the brackets, in which the stops o o rest in the operation of raking, thus binding the rake-head to the handle-frame as the rake is drawn along, and also as it revolves, the stops o o moving in the grooves c' c' during the revolution of the rake-head. S S are stirrups attached to the inner ends of the longitudinal pieces of the drawing-frame, upon which the frame of the handle rests.

I claim as new—

The brackets b b, attached to the lower ends of the handle-frame, and having their under surfaces provided with grooves c' c', terminated by notches a' a', in combination with the rake-head A, having stops o o, substantially as described, for the purpose set forth.

In witness that I claim the foregoing I have set my hand this 1st day of March, 1873.

ERWIN W. TUCKER. [L. S.]

Witnesses:

C. C. CASE,  
WM. H. BROWN.