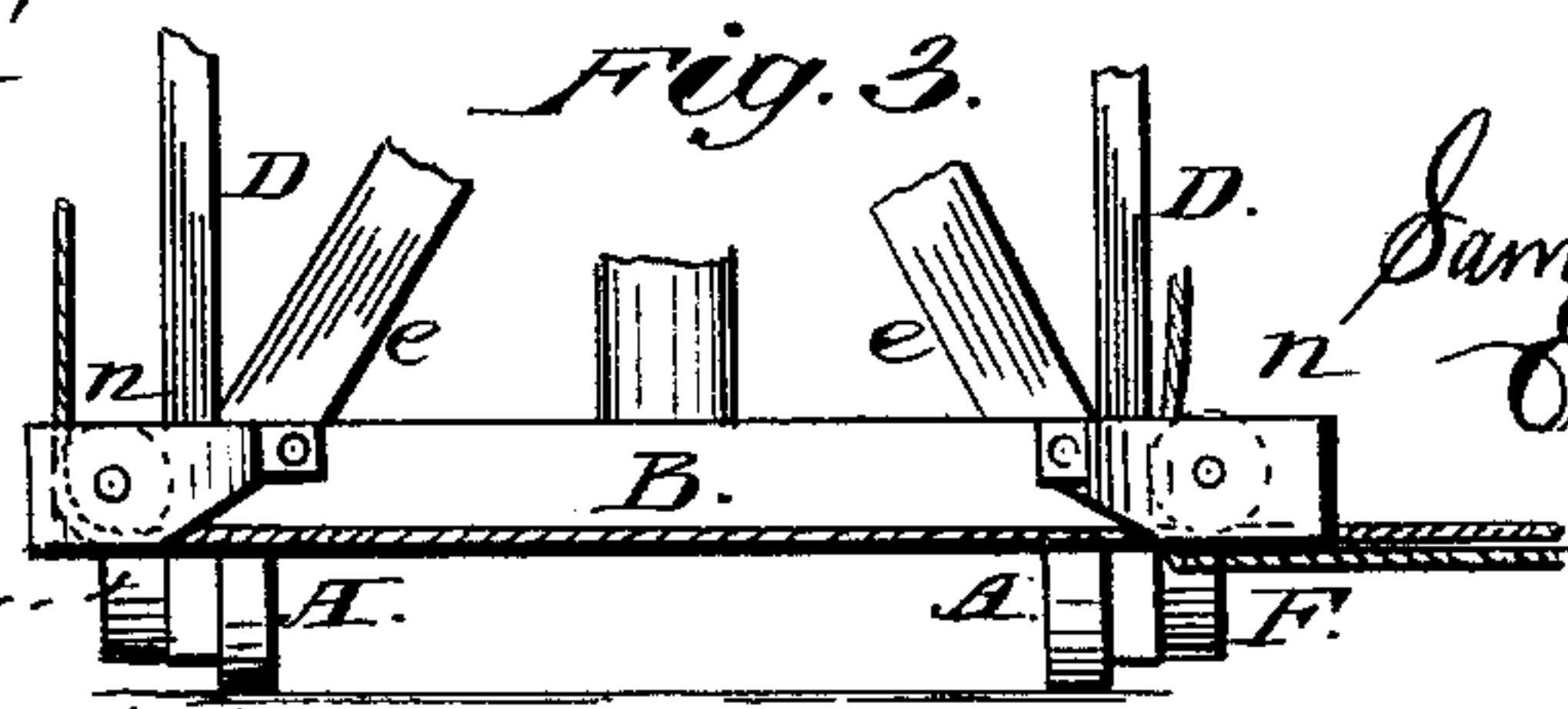
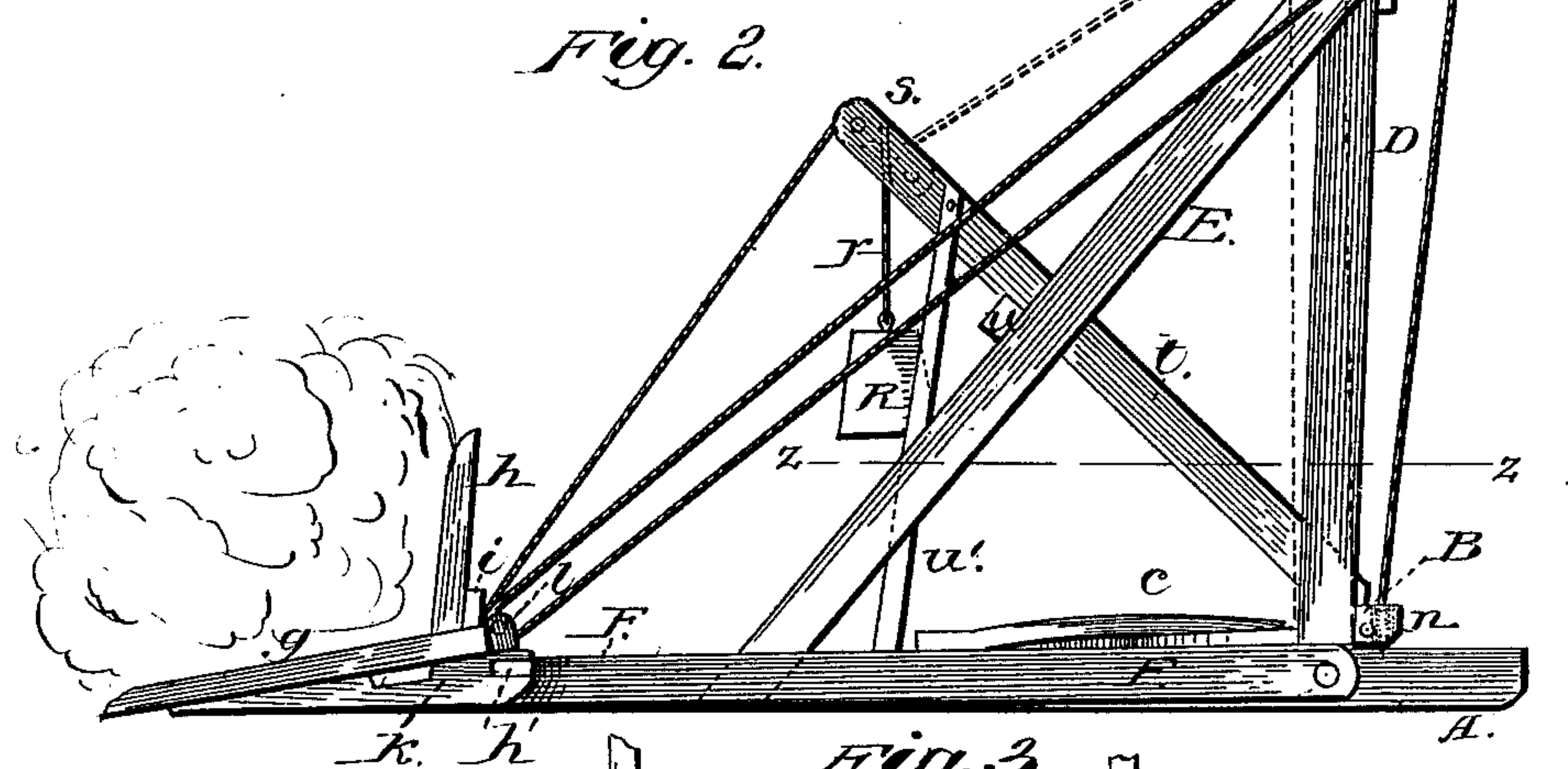
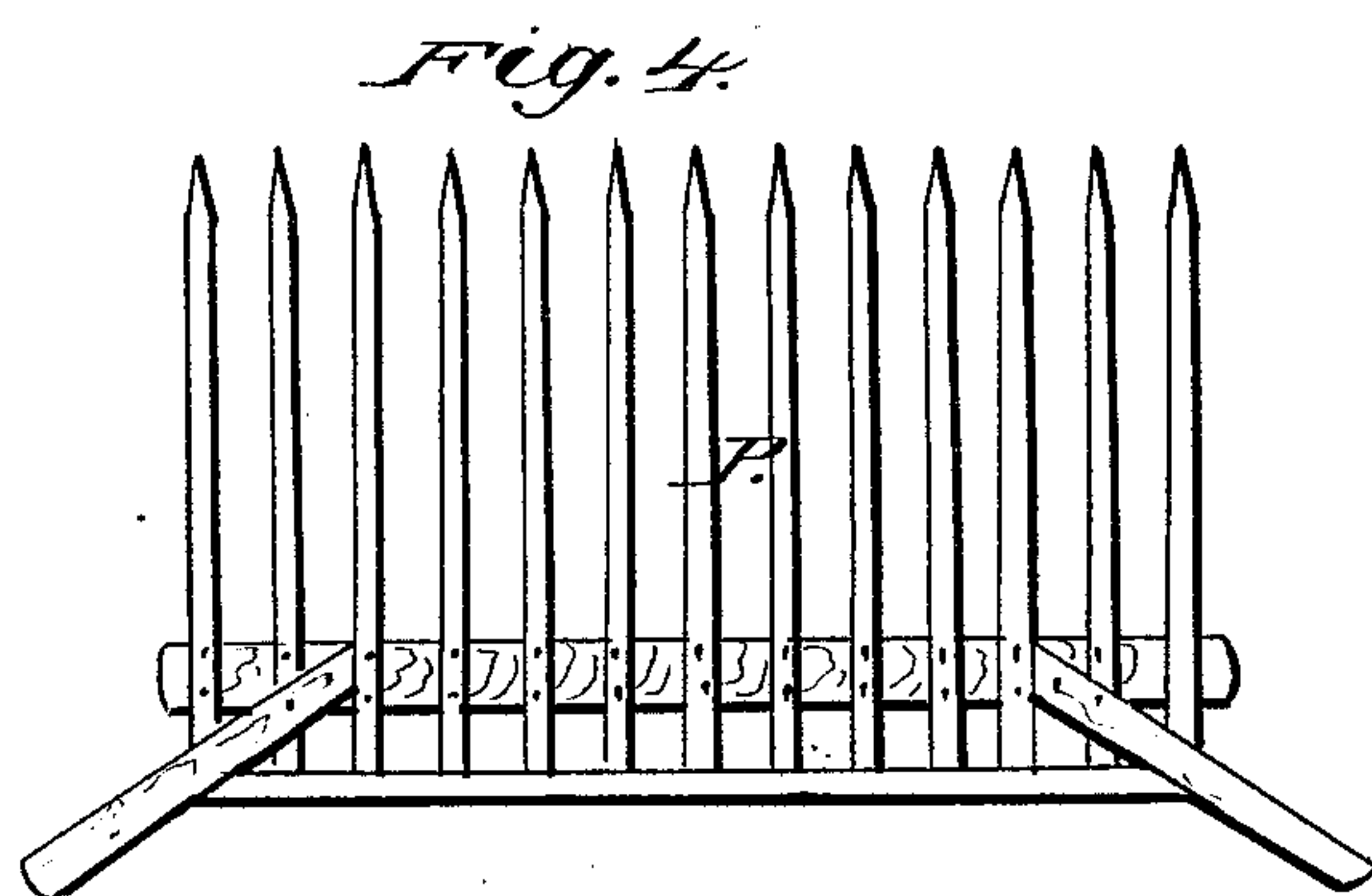
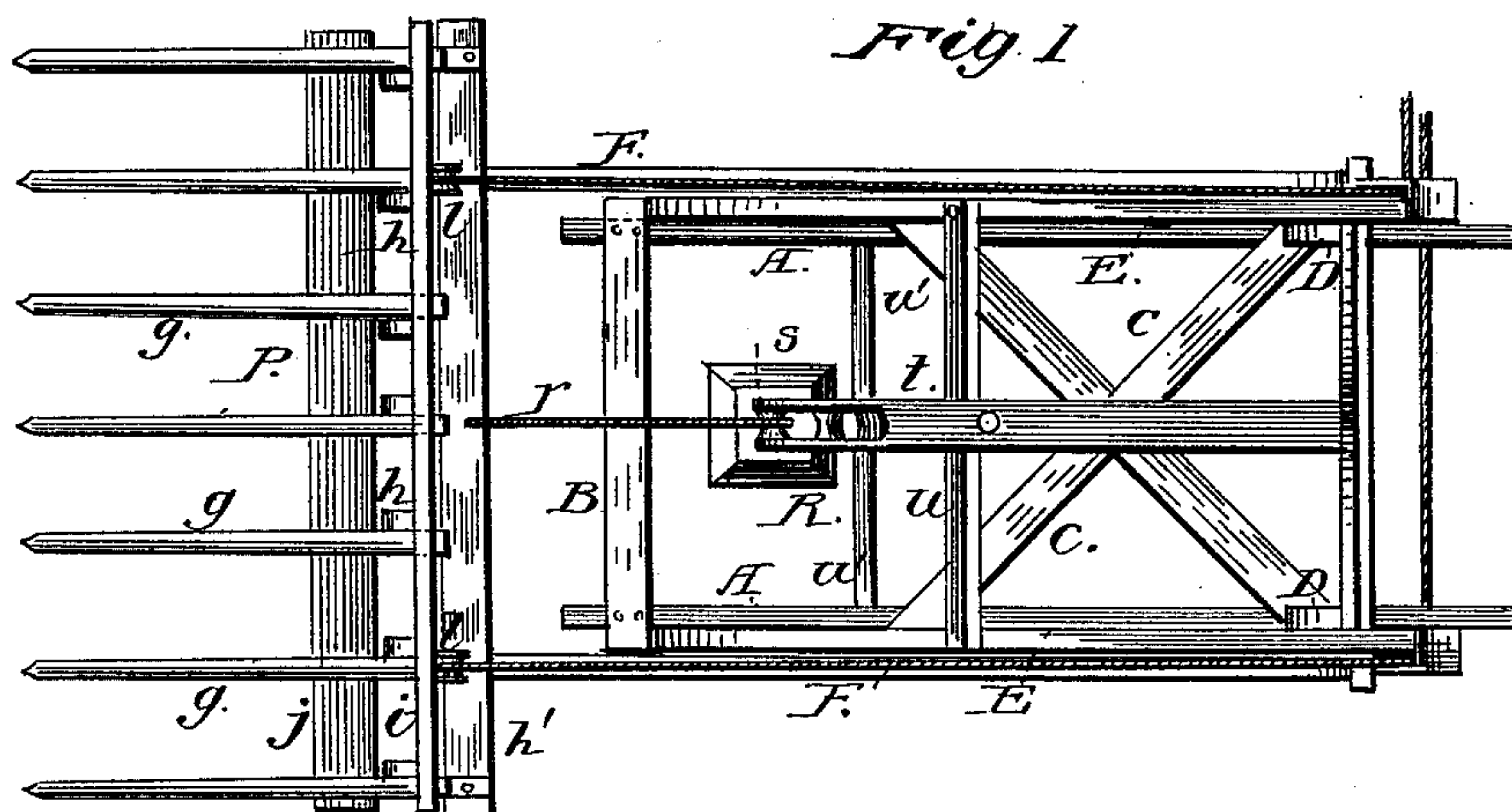


S. B. GILLILAND & E. WAYLAND.  
Hay Pitcher and Stacker.

No. 222,583.

Patented Dec. 16, 1879.



Witnesses  
Fred. G. Dietrich  
Will R. Mohr

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# UNITED STATES PATENT OFFICE.

SAMUEL B. GILLILAND AND ELI WAYLAND, OF SALISBURY, MISSOURI,  
ASSIGNORS TO JOHN E. KIRK, HENRY H. WAYLAND, AND ANDERSON  
W. TERRILL, OF SAME PLACE.

## IMPROVEMENT IN HAY PITCHERS AND STACKERS.

Specification forming part of Letters Patent No. 222,583, dated December 16, 1879; application filed June 12, 1879.

*To all whom it may concern:*

Be it known that we, SAMUEL B. GILLILAND and ELI WAYLAND, of Salisbury, in the county of Chariton and State of Missouri, have invented certain new and useful Improvements in Hay Pitchers and Stackers; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to an improvement upon Patent No. 203,332, of May 7, 1878; and it consists in the construction of the rack or fork, whereby the hay is more readily stacked than heretofore, and also in a counter-balance for the said fork, as hereinafter more fully set forth.

In the drawings, Figure 1 is a plan view of my improvement. Fig. 2 is a side elevation thereof. Fig. 3 is a vertical lateral elevation of the parts below the line Z, Fig. 2; and Fig. 4 is a modification of the rack or fork P.

Let A represent the side, and B the end cross-bars of the base of our improved hay-stacker. This frame is further braced by the diagonal cross-bars *c c*.

D D are two vertical standards at the front of the machine, and *e e* cross brace-bars.

E E are inclined side bars extending from the rear of the base-frame to and extending somewhat above and in front of the vertical bars or standards D D.

F F are the pivoted elevating-arms which support the fork. This fork is composed of the horizontal teeth *g*, vertical teeth *h*, and the three cross-bars *h' i j*, including also several other details, presently described. The rear bar, *h'*, sets into mortises formed in projecting ends of the elevating-arms, and also into mortises in the wedge-shaped pieces *k*, these wedge-shaped pieces being fitted at their rear ends to the cross-bar *j*.

The rear ends of the two end teeth are also bolted to these side pieces, *k*. All of the horizontal teeth are securely bolted to the cross

bar or board *h'*, and the two teeth next to the ends of the series are also bolted to the elevating-arms. The vertical teeth are all pivoted to the sides of the horizontal teeth, and are bolted to the bar *i*, whereby they are kept in line.

Upon the bar *h'* are two pulley-wheels, *l l*, and upon the upper ends of the inclined bars of the frame are two pulley-wheels, *m*. Pulley-wheels *n n* are also arranged upon the forward one of the cross-bars B at the sides of the base of the frame. The ropes pass from the frame over the pulleys upon the fork-frame, thence over the pulleys upon upper ends of the inclines, and thence down and around the pulleys upon rear cross-bar, B. By hitching horses to these ropes the rack with the hay, which has been placed thereon by a rake, O, may be elevated, and when the horizontal teeth *g* are set in the angle of an inclined plane, the hay will be readily pitched in the center of a stack. When, however, these teeth are set vertically and at right angles to the longer horizontal teeth, the hay will be retained on the fork when the fork is elevated, and hence be taken off by the pitcher's fork. The teeth are held in such vertical position on the frame and at right angles to the longer horizontal teeth by buttons *q*, arranged upon the rear cross-bar, and so as to abut against the butt-ends of the teeth when the said buttons are turned.

R is a weight suspended by a rope, *r*, said rope connecting with the fork-frame and passing over a pulley, *s*, which is mounted in the upper end of an inclined bar, *t*. This inclined bar is held and braced by the cross-bar *u* and inclined bars *u' u'*. This weight serves as a counter-balance while the load is being raised, and, after the load has been pitched from the elevated fork, causes the same to swing back. It is evident that after the fork has, in its descent, passed pulley *s*, the weight will then nearly counterbalance the said fork.

What we claim is—

In a hay or straw stacker and loader, the combination of the frame A D E, with its upper forward ends provided with pulleys *m* and

its lower forward ends provided with pulleys *n*, fork *g h*, pivoted to the elevating-bars F, hinged to the forward end of the base of the frame A, and its hoisting-ropes, and the oblique or angular bar *t*, projecting rearwardly from the frame, and having the pulley *s*, with the weighted rope *r*, connected to the fork, passing over its pulley, as set forth.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

SAMUEL B. GILLILAND.

ELI WAYLAND.

Witnesses:

H. H. WAYLAND,

F. B. THOMAS.