No. 763,112. PATENTED JUNE 21, 1904.

J. A. REED.

STEAM POWER CROSSCUT SAW.

APPLICATION FILED JAN. 9, 1904.

NO MODEL. 2 SHEETS—SHEET 1.

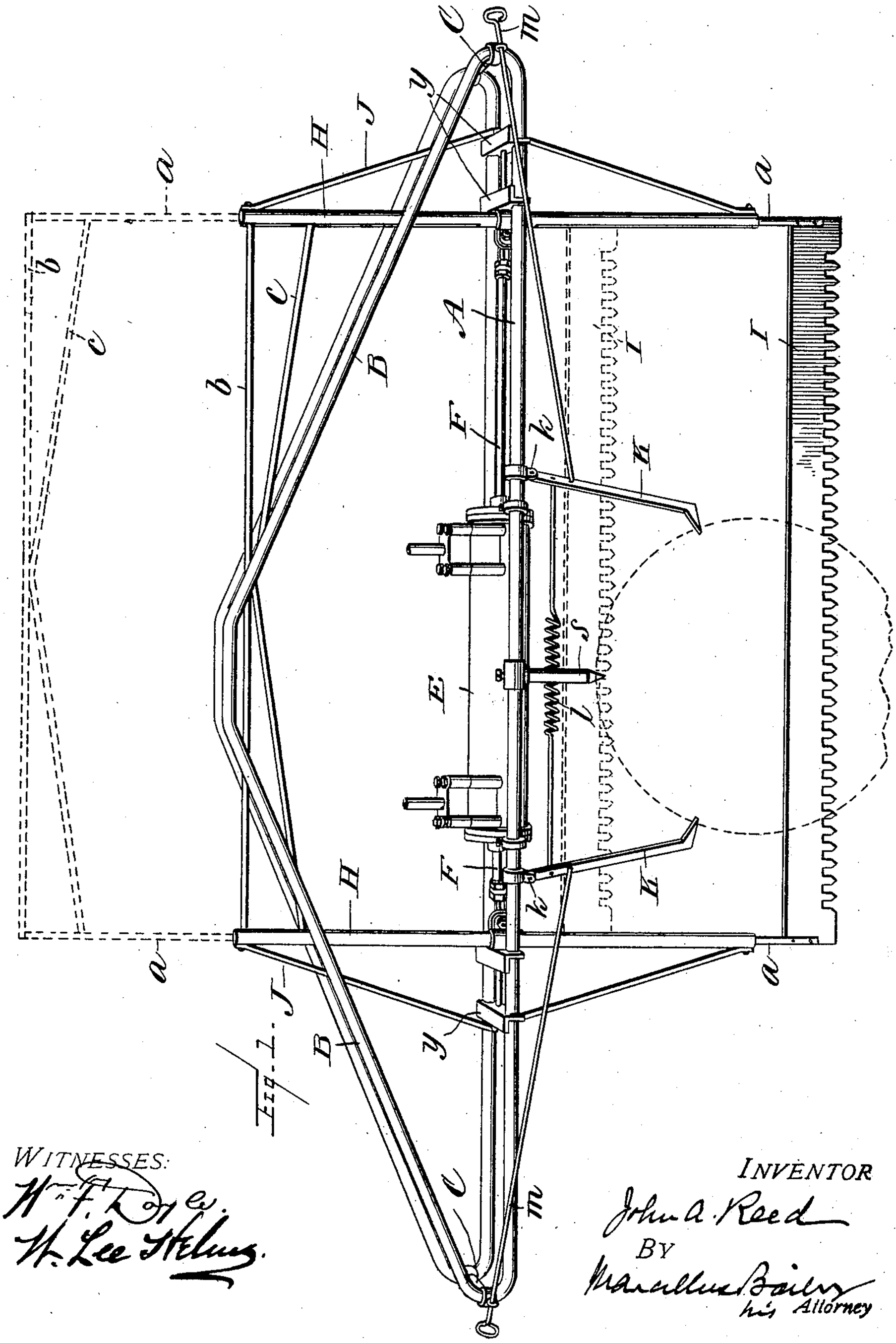

Fig. 1.

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 2.

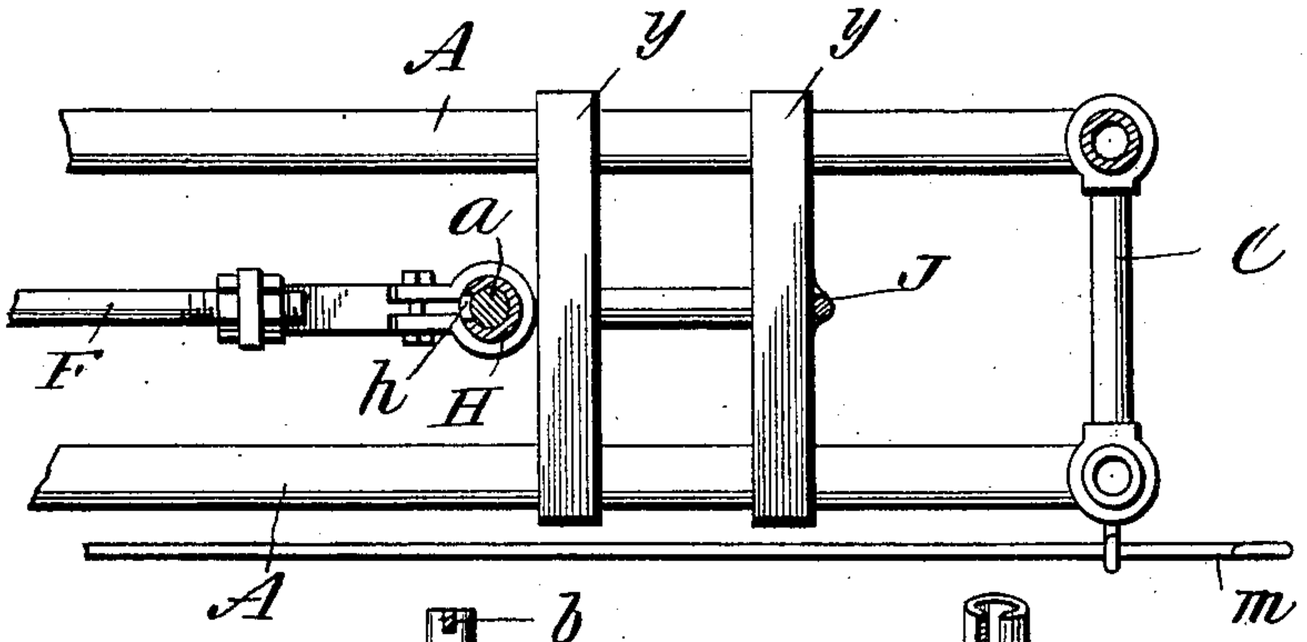


Fig. 3.

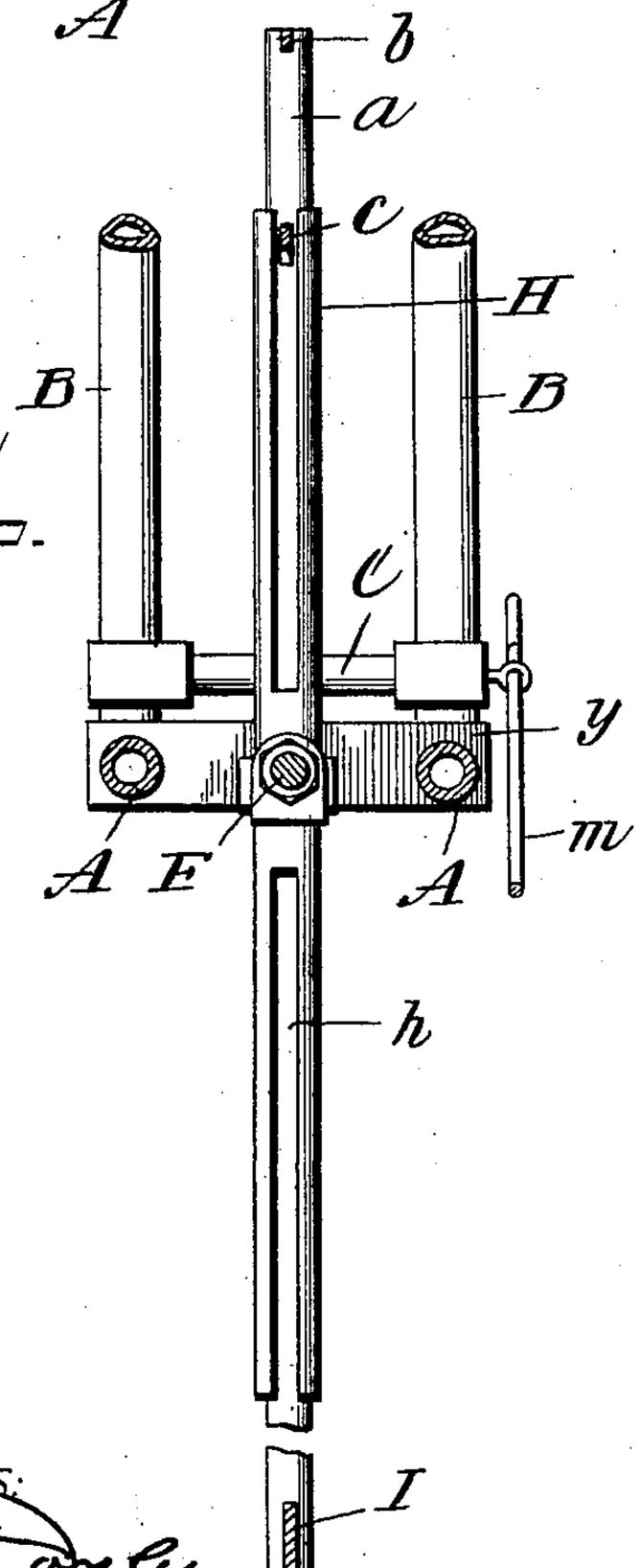
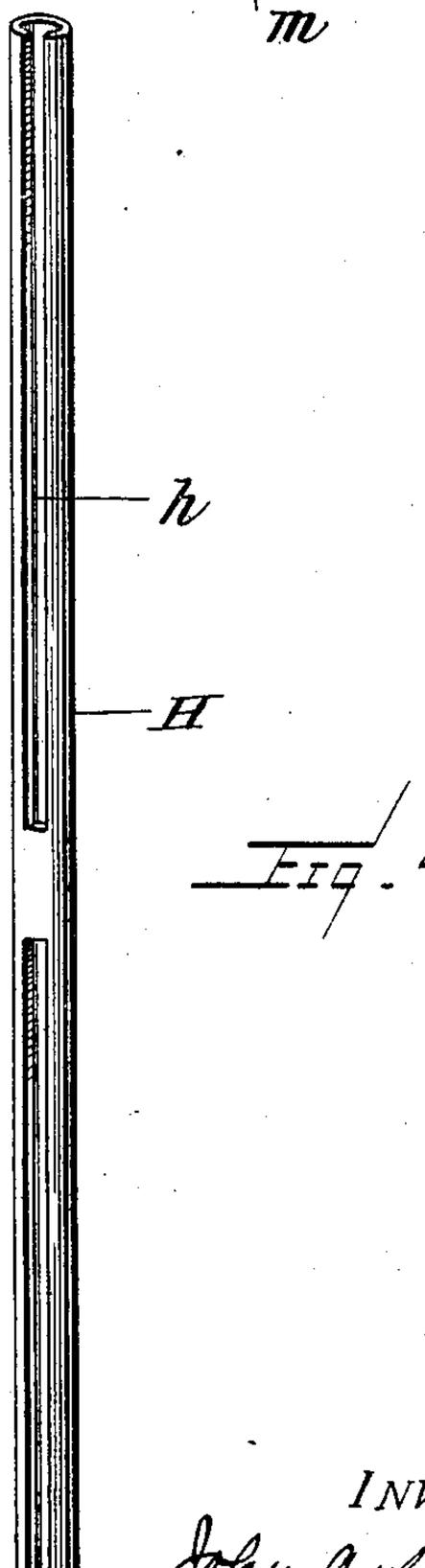


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN A. REED, OF GULFPORT, MISSISSIPPI.

STEAM-POWER CROSSCUT-SAW.

SPECIFICATION forming part of Letters Patent No. 763,112, dated June 21, 1904.

Application filed January 9, 1904. Serial No. 188,354. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. REED, a citizen of the United States, and a resident of Gulfport, in the county of Harrison and State of Mississippi, have invented certain new and useful Improvements in Steam-Power Crosscut-Saws, of which the following is a specification.

The present invention consists in certain improvements on that kind of steam-power crosscut-saw which is the subject of my Letters Patent No. 747,766, of December 22, 1903, the object being to adapt it to be used with equal facility for cutting both large and small timber.

The main characteristic of the invention is that I make use of two frames for the saw, the one connected to and reciprocating with the piston-rods of the steam-engine, as in my patent, and the other connected directly to and carrying the saw and mounted in the reciprocating frame in such manner that it is freely movable up and down in the same. In this way the saw may be lifted so that it will be very near to the cylinder (or the main frame, which supports the same) and in this position can be applied to the log to be cut, and then as it reciprocates it will make the cut and gradually descend as the work progresses, the vertically-movable frame in which it is mounted being heavy enough for this purpose.

The nature of my invention will be readily understood by reference to the accompanying drawings, in which—

Figure 1 is a perspective view of so much of a steam-power crosscut-saw as needed to illustrate the improvements. Fig. 2 is a horizontal cross-sectional detail illustrative of the means for securing the piston-rod F to the slotted pipe H. Fig. 3 is a vertical cross-sectional detail showing the pipe H and parts of the frame in which it is mounted. Fig. 4 is a view of one of the pipes H.

The main frame is made of two tubular sections each formed with a horizontal base A and two inclined sides B, placed side by side and held at a given distance apart by end cross-braces C, the frame being in these and other respects constructed as described in my aforesaid Letters Patent. The steam-cylinder carried by this frame is indicated at E, and F indicates the piston-rods which protrude from opposite ends of the steam-cylinder and are secured to the reciprocating saw-frame. I have omitted the structural details of these parts, as well as the steam-valve devices and their operating mechanism, inasmuch as these are fully illustrated in my aforesaid Letters Patent and form no part of my present improvements.

I come now to those features in which my present invention is found.

The piston-rods F are attached at their outer ends to uprights H, which reciprocate with the piston-rods and are provided with crossheads *y*, as in my patent, which serve as guides to steady the saw in its movements, and these uprights H are also provided with trusses J, as in my patent. The uprights H, however, are not connected directly to the saw I, but they are tubular, (for which purpose they can conveniently be made of metal piping of suitable caliber,) so as to receive and serve as guides for the frame, to which the saw is directly attached. This frame consists in the present instance of two vertical bars or rods *a*, to the lower ends of which the saw is secured and whose upper ends are connected and braced apart by rods *b* and *c*. The parts *a b c* are the frame proper, and this frame, while partaking of the reciprocating movement of the motion-transmitting frame H H, is yet capable of freely moving up and down independently of the latter. A longitudinal slot *h* is cut in the inner face of each tubular upright H from either end to within about three or four inches of the longitudinal middle of the upright, this being to permit the free up and down movement of the saw and its frame proper, the saw when lifted to the position shown by dotted lines in the drawings entering these slots at the lower ends of the uprights, while when the saw descends to its full limit the cross-braces *a b c* of the frame will enter these slots at the upper ends of the uprights.

From the bottom of the main frame and centrally beneath the engine are two short spurs *s*, one only of which is shown in the drawings, these being designed to support the engine in

place on the log and also to hold the engine up off the saw when the latter is drawn up close to the cylinder. In conjunction with these spurs hinged steady-hooks K are provided, which engage the log from opposite sides, as shown. These hooks are hinged to the main frame at *k*. They are pulled by strong springs *l* in the direction to cause them to engage the log, and they are retracted against the stress of their springs by handles *m*. If these hooks be pulled back by their handles, then on letting go the latter the acting ends of the hooks will be driven with great force into the log.

Having described my improvements and the best way now known to me of carrying the same into effect, what I claim herein as new, and desire to secure by Letters Patent, is—

1. The combination with the main frame and engine thereon, of the slotted tubular uprights H secured to and moving with the piston-rods of the engine, the saw I and the saw-carrying frame having vertical end bars or rods *a* passing through and freely movable up and down in said uprights, as and for the purposes hereinbefore set forth.

2. The combination with the main frame, of the central spurs *s*, the oppositely-arranged hinged, spring-controlled hooks K, and their operating-handles *m*, substantially as and for the purposes hereinbefore set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN A. REED.

Witnesses:
JOHN H. LANG,
W. A. KING.