

No. 685,315.

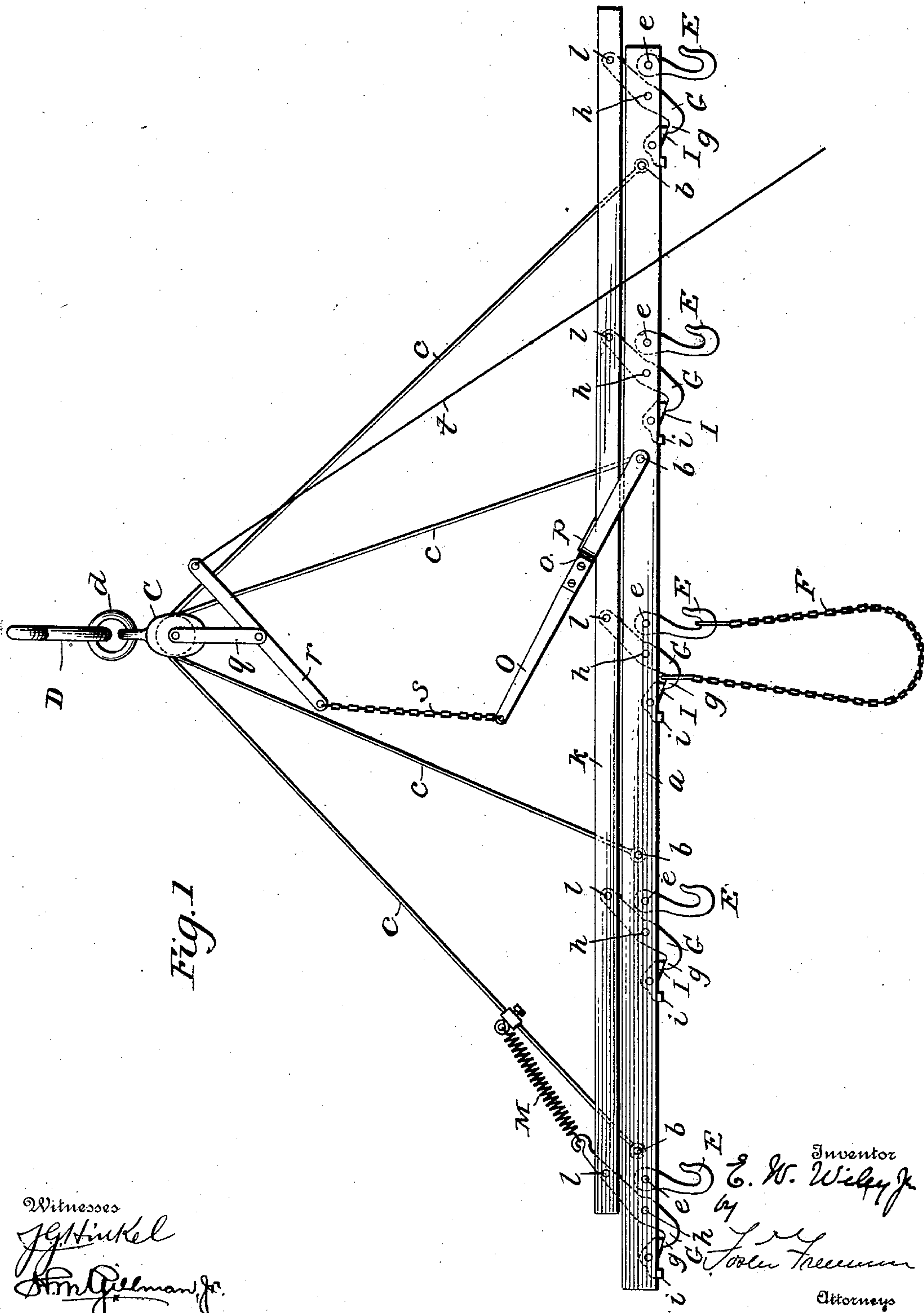
Patented Oct. 29, 1901.

E. W. WILEY, JR.  
SUPPORT AND TRIPPING DEVICE FOR SLINGS.

(Application filed Mar. 8, 1901.)

(No Model.)

2 Sheets—Sheet 1.



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Fig. 2.

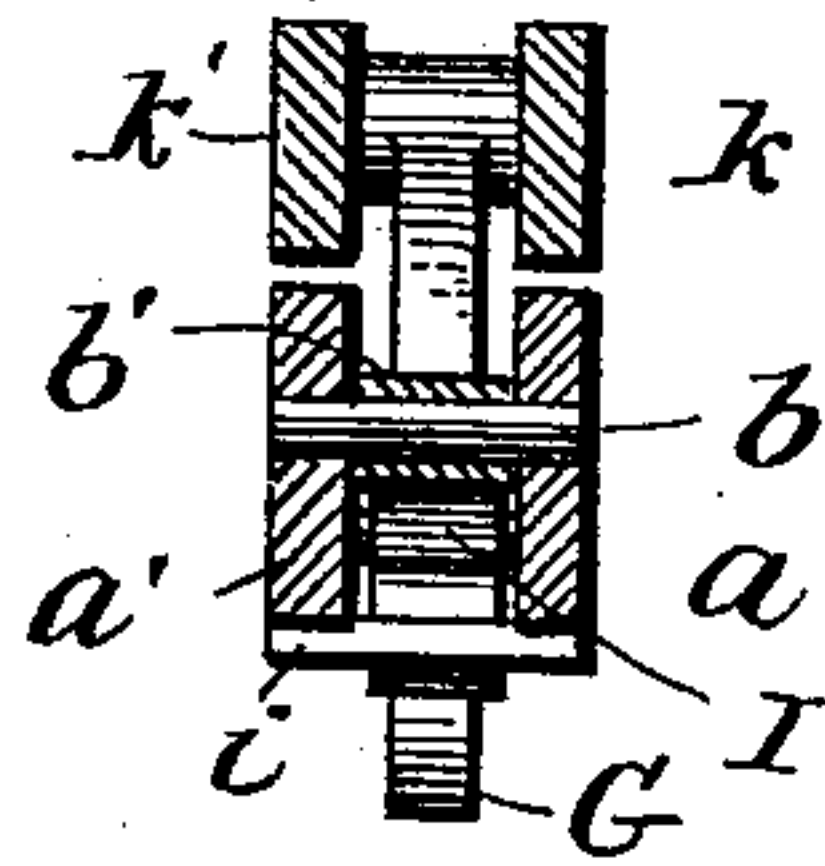


Fig. 3.

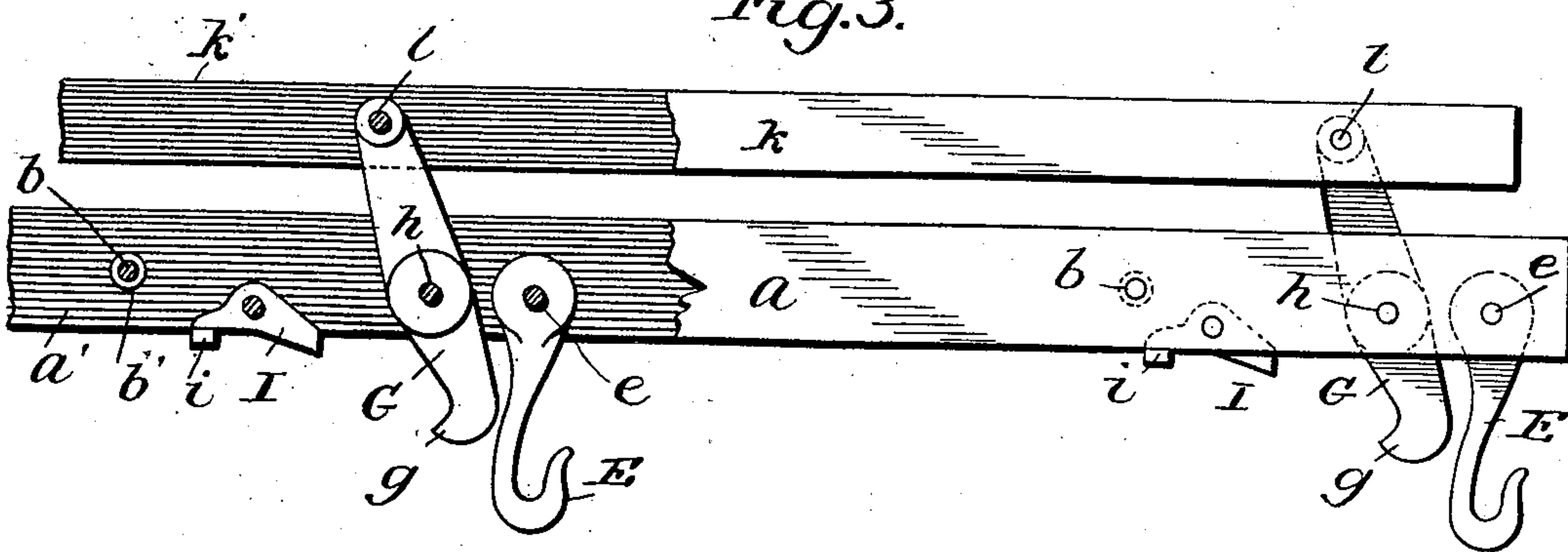


Fig. 4.

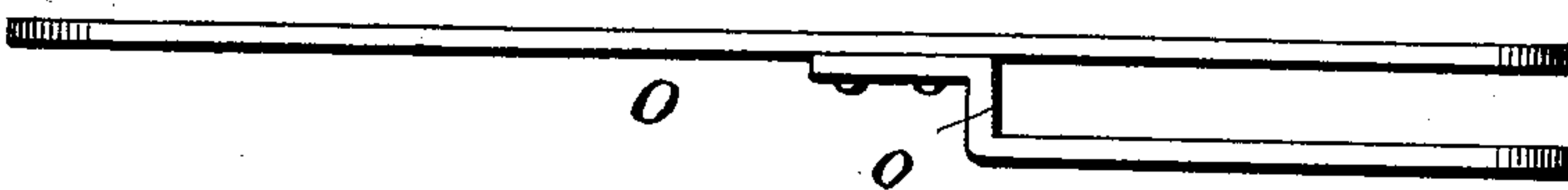


Fig. 5.

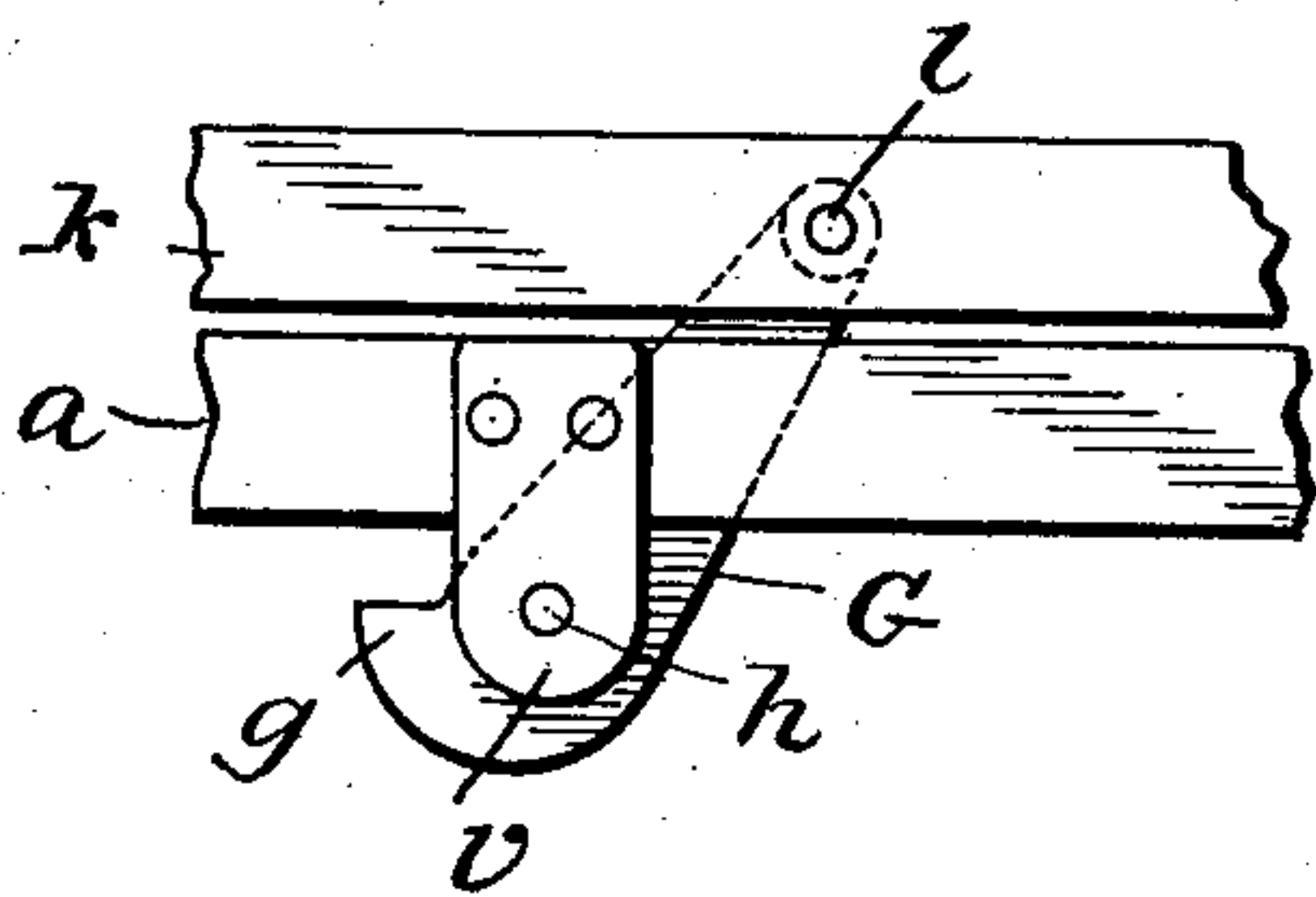
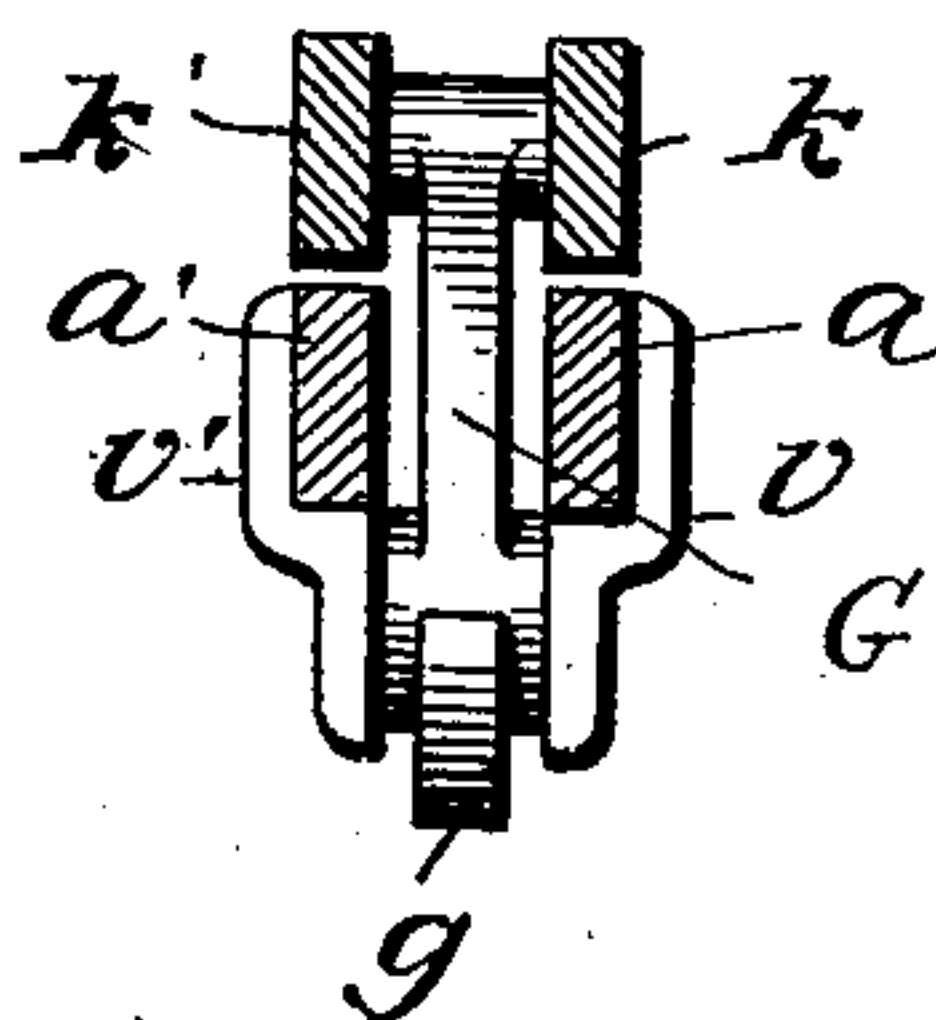


Fig. 6.



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# UNITED STATES PATENT OFFICE.

EDMUND W. WILEY, JR., OF LECOMPTE, LOUISIANA.

## SUPPORT AND TRIPPING DEVICE FOR SLINGS.

**SPECIFICATION** forming part of Letters Patent No. 685,315, dated October 29, 1901.

Application filed March 8, 1901. Serial No. 50,363. (No model.)

*To all whom it may concern:*

Be it known that I, EDMUND W. WILEY, Jr., a citizen of the United States, residing at Lecompte, in the parish of Rapides and State of Louisiana, have invented certain new and useful Improvements in Supports and Tripping Devices for Slings, of which the following is a specification.

This invention relates to supports and tripping devices for slings, such as are used in the transportation or unloading of sugar-cane, wood, or other like articles; and it consists in certain improved means whereby the slings may be securely supported and readily released or tripped when desired.

The invention will be fully described hereinafter, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of the device. Fig. 2 is a vertical transverse section, the suspending rope or chains being broken away. Fig. 3 is a side elevation of a portion of the device, showing the position of the parts when tripped. Fig. 4 is a detail view of the latch-lever. Fig. 5 is a side elevation of a portion of the device, and Fig. 6 a vertical transverse section showing a modification.

In carrying out my invention I preferably employ two bars  $a a'$ , spaced apart in parallel relation and connected by a series of transverse bolts or rivets  $b$ , and spacing-sleeves  $b'$  may be fitted over the bolts  $b$  to hold the bars the desired distance apart. The bolts  $b$  also serve as a means of connection between one or more ropes or chains, (indicated by  $c$ ,) which pass through a head-block  $C$  and the ends of which are secured to the bolts  $b$ . The head-block is provided with a link  $d$ , adapted to be engaged with a hook  $D$ , forming part of a hoisting mechanism. The bars  $a a'$  are also provided with a series of transverse pins  $e$ , upon which hooks  $E$  are supported, said hooks extending below the bars in position to receive one end of a sling  $F$ .

$G$  represents a trip-hook, consisting of a short bar having a laterally-projecting hook portion  $g$  at its lower end, and there may be as many of these trip-hooks as desired, one being located near each of the hooks  $E$ . The trip-hooks are pivoted intermediate their ends between the bars  $a a'$  on pins  $h$ , secured in said bars, and the hook portion  $g$  is adapted

to engage one end of a guard or dog  $I$ , pivoted between the bars  $a a'$ , the other end of said guard being provided with a lug or pin  $i$  to engage the lower edge of one or both of said bars  $a a'$  to limit the downward movement of the end of the guard  $I$ , which is engaged by the trip-hook, and when the trip-hook and guard are held in engagement with each other, as hereinafter described, they serve as a support for the other end of the sling  $F$ .

Above the bars  $a a'$  are arranged another pair of spaced parallel bars  $k k'$ , connected together by transverse pins or bolts  $l$ , which also pass loosely through the upper ends of the trip-hooks  $G$ , and the latter therefore connect the bars  $a a'$  and the bars  $k k'$  and permit them to move longitudinally with respect to each other, but maintain them in parallel relation.

A spiral spring  $M$  is connected at one end to the bars  $k k'$  and at its other end to one of the ropes or chains  $c$  and tends to normally hold the bars  $a a'$  and  $k k'$  in such relation to each other that the trip-hooks  $G$  will extend diagonally across said bars with their hook portions  $g$  in engagement with the guards or dogs  $I$ . This spring, however, is not of sufficient strength to hold the bars in this normal position when the loaded slings are engaged with the trip-hooks, for in this case the loaded slings—that is, when they are supported only by the hooks  $G$  and  $E$ —tend to pull the hooks  $G$  to a vertical position and it is necessary, therefore, to detachably lock the bars in their normal positions relatively to each other. Various devices may be employed to detachably lock the bars in such position, and preferably I employ a latch-lever  $O$ , pivoted at one end to one or both of the bars  $a a'$  and having a bearing-face adapted to engage a bearing-face on one of the bars  $k k'$  to prevent movement of the bars  $k k'$  against the force of the spring  $M$ . Thus the lever  $O$  may be bifurcated or forked to straddle one or both of the bars  $a a'$ , and the crotch  $o$  may engage with a lug or lugs  $p$  on one or both of the bars  $k k'$ , situated to one side of the pivot of the lever  $O$ . Obviously by swinging the lever on its pivot these interlocking faces may be disengaged, and when so disengaged the weight of the loaded slings will move the trip-hooks  $G$  to



substantially vertical position, thereby moving the bars  $k k'$  relatively to the bars  $a a'$  against the force of the spring, and when this occurs the ends of the slings supported by the hooks G will automatically disengage the hooks G and the contents of the slings be discharged therefrom.

In order to operate the latch-lever O when the device is elevated, a depending strap  $q$  is secured to the head-block C and a lever  $r$  is pivoted intermediate its ends to said strap. One end of this lever  $r$  is connected by a rope or chain  $s$  to the free end of the latch-lever O, and a trip-line  $t$  is connected to the other end of the lever  $r$  and may be any length desired.

Obviously instead of using two metal bars  $a a'$ , connected together as described, a single bar either of wood or metal may be employed, and the same is true with respect to the bars  $k k'$ . If single bars were used, openings could be cut through them for the reception of the hooks G and E, or these hooks could be pivoted on one side of the bars. It is to be understood, therefore, that in the claims the word "bar" is intended to include either a single bar or two parallel-spaced bars connected to move together, for the bars  $a a'$  or  $k k'$  are in effect the same as a single bar so far as their movements are concerned. The structure illustrated and described is, however, deemed preferable to a single bar either of wood or metal.

Referring to Figs. 5 and 6, it will be observed that instead of pivoting the trip-hook G directly to the bars  $a a'$  I attach ears or lugs  $v v'$  to said bars, said lugs extending below the bars and forming the supports for the pivot-pin  $h$  of the hook G. By this arrangement the fulcrum of the hook is brought much closer to its load and is advantageous where very heavy loads are carried by the slings.

Having described the invention, I claim—

1. In a support and tripping device for slings, the combination of a bar, a plurality of hooks attached thereto and each adapted to support one end of a sling, a plurality of trip-hooks pivoted intermediate their ends to said bar, a second bar parallel to the first bar to which one end of each of the trip-hooks is loosely connected, and means to detachably lock the bars against movement relatively to each other and hold the trip-hooks in position to support the other ends of the slings, substantially as set forth.

2. In a support and tripping device for slings, the combination of a bar, a plurality of hooks attached thereto and each adapted to support one end of a sling, a plurality of trip-hooks pivoted intermediate their ends to said bar, a second bar parallel to the first bar to which one end of each of the trip-hooks is loosely connected, guards or dogs on the first bar adapted to be engaged by the other ends of the trip-hooks, and means to detachably lock the bars against movement relatively to each other and hold the trip-hooks in engagement with said guards to support the other ends of the slings, substantially as set forth.

3. The combination of two bars connected to have longitudinal movement in parallel relation to each other, a hook E connected to one bar and adapted to support one end of a sling, a trip-hook I pivoted intermediate its ends to the same bar and loosely connected at one end to the other bar, and a latch-lever pivoted to one bar and having a locking-face to engage a locking-face on the other bar to detachably lock the said bars against movement relatively to each other and hold the other end of the trip-hook in position to support the other end of the sling, substantially as set forth.

4. The combination of upper and lower bars parallel to each other, a plurality of trip-hooks pivoted intermediate their ends to the lower bar and connected at their upper ends to the upper bar, means to suspend said bars, dogs or guards on the lower bar in position to be engaged by the lower ends of the trip-hooks, a spring connected to the upper bar and a relatively-fixed support and normally tending to move the upper bar to bring the lower end of each trip-hook into engagement with its guard to support one end of a sling, a latch-lever pivoted to the lower bar and having a locking-face to engage a locking-face on the upper bar and hold said bars against movement relatively to each other, means to operate said latch-lever to disengage the locking-faces, and hooks on the lower bar to support the other ends of the slings, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDMUND W. WILEY, JR.

Witnesses:

JONAS WOLF,  
R. W. WADDILL.