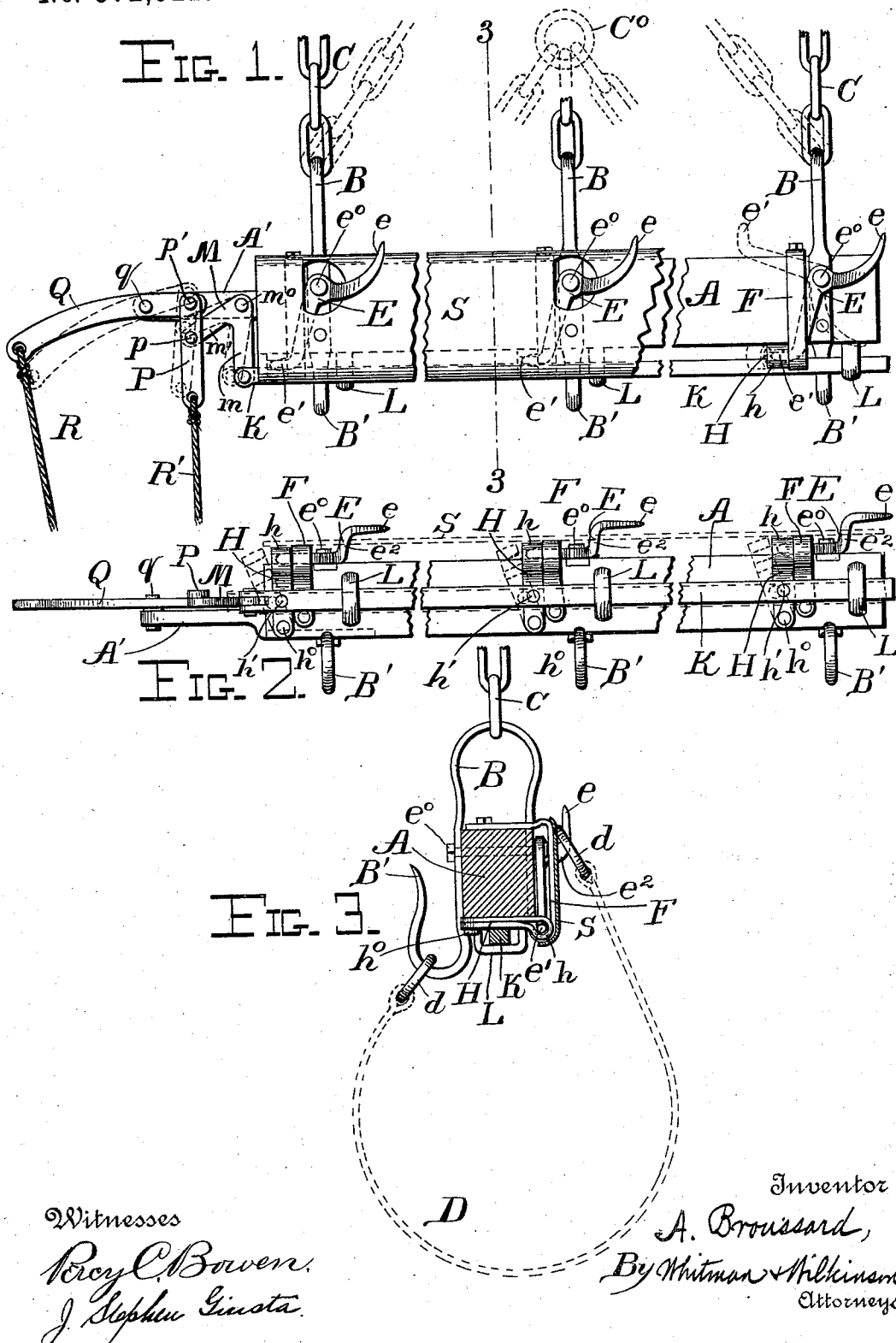


(No Model.)

A. BROUSSARD.
SUPPORT AND TRIPPING DEVICE FOR SLINGS.

No. 572,522.

Patented Dec. 8, 1896.



UNITED STATES PATENT OFFICE.

AMAN BROUSSARD, OF NEW IBERIA, LOUISIANA.

SUPPORT AND TRIPPING DEVICE FOR SLINGS.

SPECIFICATION forming part of Letters Patent No. 572,522, dated December 8, 1896.

Application filed March 21, 1896. Serial No. 584,212. (No model.)

To all whom it may concern

Be it known that I, AMAN BROUSSARD, a citizen of the United States, residing at New Iberia, in the parish of Iberia and State of Louisiana, have invented certain new and useful Improvements in Supports and Tripping Devices for Slings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improved supports and tripping devices for slings, and especially for those slings used in the transportation or unloading of sugar-cane, wood, or other like articles.

The said invention consists in certain improved means whereby the slings may be securely supported and readily released or tripped when desired.

Reference is had to the accompanying drawings, in which the same parts are indicated by the same letters throughout the several views.

Figure 1 represents a side elevation of the improved device, parts being broken away. Fig. 2 is an inverted plan view of the device shown in Fig. 1, the casing being omitted; and Fig. 3 is a sectional view along the line 3 3 of Fig. 1 and looking to the right.

A represents a stout beam of metal, wood, or other suitable material of the required length and thickness. For use in handling cane it should preferably be about seven feet long by five inches deep by four inches wide, but these proportions may be varied at will. From one end of this beam a bar A' projects, forming a support for the tripping-lever, as will be hereinafter described. Secured at intervals along this beam A are the straps B, which are formed into U-shaped eyes at their upper ends and have their sides bolted to the sides of the beam A, while one of these sides terminates in a stout hook B', as shown most clearly in Fig. 3. The chains C connect these straps B with a derrick or other suitable support, (not shown,) and these chains may lead vertically upward to the said support, as shown in Fig. 1, or may be inclined, as shown in dotted lines in the said figure, and connected to a ring C⁰, which is supported from a derrick or fall in any convenient way.

The slings D, which are made of rope or chain or other suitable material, are provided with eyes or rings *d* in the ends thereof, one of which eyes or rings is adapted to hook over the hook B' and the other to hook over the arm *e* of the pivoted lever E, which lever is pivoted at *e*⁰, the bolt for the said pivot passing through the beam and the two sides of the strap B, and thus serving not only to form a pivot for the said lever E, but also to hold the several parts together. The lower arm of this bent lever E is bent outward, as at *e'*, and adapted to be supported on the strap F, secured to the beam, and to project into the eye *h* of the transverse lever H, which is pivoted at *h*⁰ beneath the beam A, as shown most clearly in Fig. 2. These several levers H are pivotally connected, as at *h'*, to the sliding rod K, which moves in the guides L, secured beneath the beam A. This rod K is pivotally connected to the arm *m* of the bell-crank lever M, which bell-crank lever is pivoted at *m*⁰ on the bar A' and has its outer arm *m'* pivotally connected, as at *p*, to the link P, which link is also connected, as at *p'*, to the inner arm of the tripping-lever Q. This tripping-lever Q is pivoted at *q* to the bar A', and is provided with an operating rope or cord R. A similar rope or cord R' is connected to the link P, as shown in Fig. 1.

From an inspection of Fig. 1 it will be seen that if the rope R be pulled down upon the link P will lift the arm *m'* of the bell-crank lever M, causing this bell-crank lever to withdraw the rod K and with it the transverse levers H, causing the eyes *h* to become disengaged from the arms *e'* of the bent levers E, and if the slings be in the position shown in Fig. 3 the weight of the load will cause the upper arms *e* of these levers E to swing down and release the upper rings of the slings, dumping the load. The lower arms *a'* of these levers E should be made heavier than the upper arms *e*, so that as soon as the slings are detached from the said upper arms these bent levers E will return to the normal position, when by simply pulling down on the rope R' the rod K will be moved back into the position shown in Fig. 1 and the eyes *h* will engage the arms *e'*, thus putting the support in position for hooking on another load.

For convenience in manipulation a casing S, of sheet iron or steel, is preferably placed over the moving parts on one side of the device, and thus accidents due to the slings or falls catching in these parts are to a large degree obviated. It will be obvious that this casing may be omitted, if desired, or that it may go entirely around the bottom instead of projecting on one side only, as shown in Fig. 3. It will also be seen that the number of these hooks B' and of the corresponding bent levers E may be increased or decreased, as may be desired, the number and arrangement of these and the weight of the several parts depending upon the nature of the work to be done and especially upon the weight of the load to be lifted.

In practice the slings D are placed across the bottom of the empty cart or wagon, with the ends hanging over the sides thereof, and the said cart or wagon is driven under the suspended beam A and the slings are hooked in place, as shown in Fig. 3.

The device for lifting the beam A with the load suspended therefrom is not a part of my present invention, and I make no claim to any specific means, any ordinary derrick or like lifting device being suitable for this purpose.

It will be obvious that various modifications of the herein-described apparatus might be made which could be used without departing from the spirit of my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In an improved support and tripping device for slings, the combination with a beam, and means for supporting the same, of a plurality of hooks rigidly attached to said beam, bent levers corresponding to said hooks, and having the lower arm weighted and the upper arm hook-shaped, eyes adapted to slip over the weighted arms of said levers, and to lock the same in position, and means for simultaneously moving said eyes into or out of engagement with all of said weighted arms, substantially as described.

2. In an improved support and tripping device for slings, the combination with a beam and means for supporting the same, of a plurality of hooks rigidly attached to said beam, bent levers corresponding to said hooks and having the lower arm weighted, and the upper arm hook-shaped, pivoted eyes adapted to slip over the weighted arms of said levers

and to lock the same in position, a sliding rod adapted to simultaneously operate all of said eyes, and means for moving said rod in either direction, substantially as described.

3. In an improved support and tripping device for slings, the combination with a beam and means for supporting the same, of a plurality of hooks rigidly attached to said beam, bent levers corresponding to said hooks and having their lower arms weighted, and the upper arms hook-shaped, pivoted eyes adapted to slip over the weighted arms of said levers and to lock the same in position, a sliding rod adapted to simultaneously operate all of said eyes, a tripping-lever and connections for moving said rod in either direction, and means for operating said tripping-lever, substantially as described.

4. In an improved support and tripping device for slings, the combination with a beam and means for supporting the same, and a bar projecting from said beam, of a plurality of hooks rigidly attached to said beam, bent levers corresponding to said hooks, and having their lower arms weighted, and their upper arms hook-shaped, eyes adapted to slip over the said weighted arms and to lock the same in position, a sliding rod adapted to simultaneously operate all of said eyes, a bell-crank lever pivoted to said projecting bar and connected to said rod, and a link and tripping-lever connected to said bell-crank lever, with ropes for pulling on said tripping-lever or said link, substantially as described.

5. In an improved support and tripping device for slings, the combination with a beam and means for supporting the same, of a plurality of hooks rigidly attached to said beam, on one side thereof, bent levers pivoted to said beam on the opposite side thereof, and having their lower arms weighted and their upper arms hook-shaped and bent outward, pivoted eyes adapted to slip over the weighted arms of said levers, and to lock the same in position, a sliding rod adapted to simultaneously operate all of said eyes, means for moving said rod in either direction and a sheath inclosing one side of said beam and the moving parts contiguous thereto, substantially as described.

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

AMAN BROUSSARD.

Witnesses:

ALBERT ESTORYL,
T. GEO. J. SABATIER.