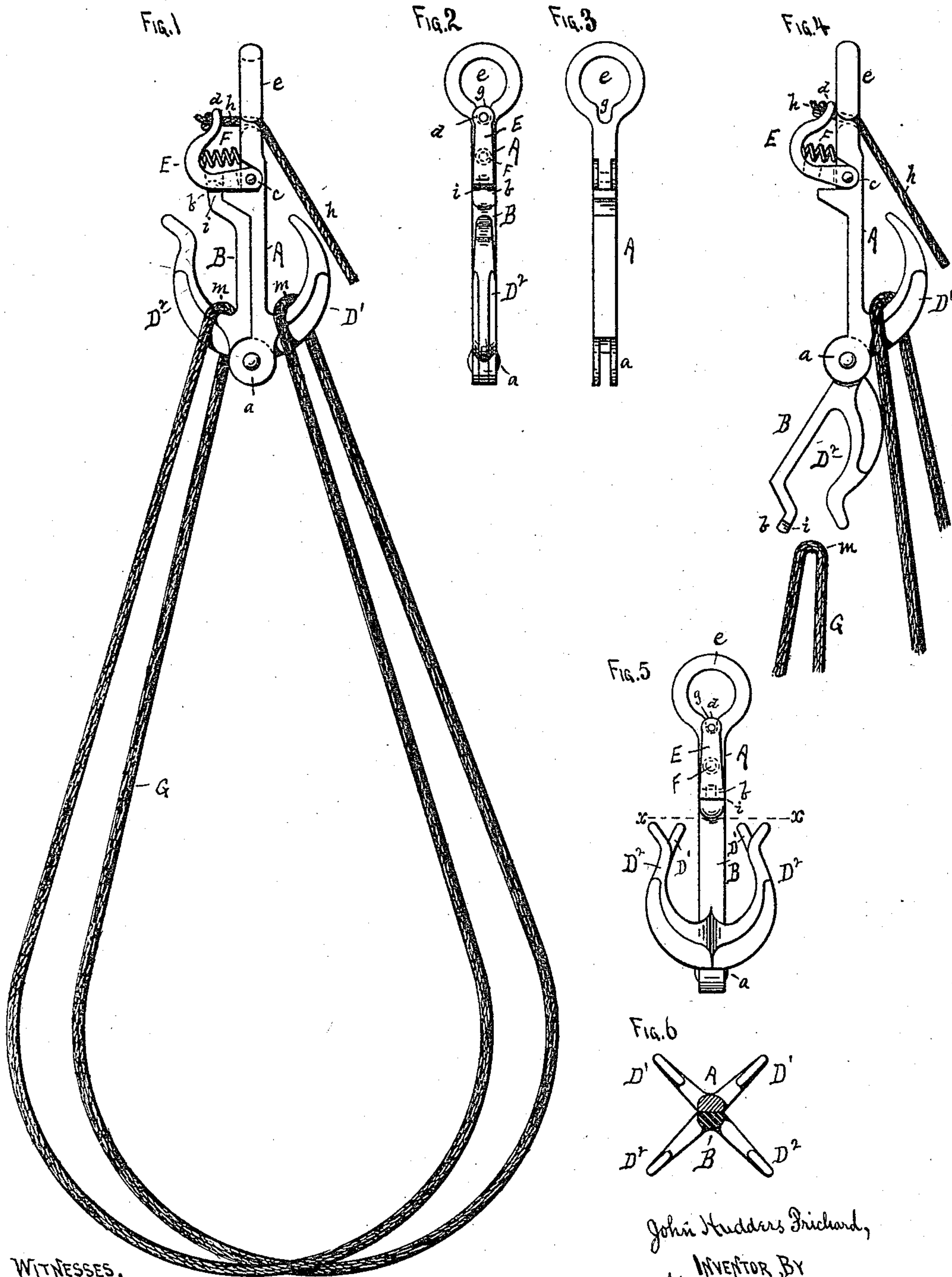


(No Model.)

J. H. PRICHARD.
TRIP HOOK.

No. 441,255.

Patented Nov. 25, 1890.



WITNESSES.
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UNITED STATES PATENT OFFICE.

JOHN HUDDERS PRICHARD, OF BODE, IOWA.

TRIP-HOOK.

SPECIFICATION forming part of Letters Patent No. 441,255, dated November 25, 1890.

Application filed October 5, 1888. Serial No. 287,289. (No model.)

To all whom it may concern:

Be it known that I, JOHN HUDDERS PRICHARD, a citizen of the United States, residing at Bode, in the county of Humboldt and State of Iowa, have invented certain new and useful Improvements in Trip-Hooks for Hay-Hoisting Apparatus, of which the following is a specification.

This invention relates to apparatus for elevating hay, straw, and similar products; and it consists in the manner of constructing the trip-hook, by which the load may be readily discharged from the slings, as hereinafter shown and described, and specifically pointed out in the claim.

In the drawings, Figure 1 is a side view of one of the hooks complete, and Fig. 2 is an end view of the same with the falling standard held in place by the trip-catch. Fig. 3 is a view of the trip with the falling standard and trip-catch removed. Fig. 4 is a similar view to Fig. 1, with the falling standard in its downward position when the sling is released. Fig. 5 is a front elevation; and Fig. 6 is a plan view in section on the line X X of Fig. 5, illustrating a modification in the construction.

A represents the main standard or shank of the device, having the falling standard B, pivoted at *a* to its lower end, the shank and standard being each supplied with a hook *D'* *D*², as shown. The upper end of the falling standard B is formed with a beveled lug *b*, adapted to fit into a slot in a trip-catch E, the latter pivoted at *c* to the shank A and being of a substantially right-angled form, with the upper end *d* opposite to the lower part of the eye *e*, by which the hoisting-cable is connected to the shank. The eye *e* has a depression *g*, (see Fig. 3,) through which the trip-cord *h* is led from the upper end *d* of the trip-catch E, as shown.

A spring F is arranged between the trip-catch E and the shank A, as shown, to keep the catch down in position upon the lug *b*, and thus hold the parts A B together, as in Fig. 1. The lug *b*, as before stated, is beveled or inclined outward and upward, while the socket or slot in which it fits in the trip-catch E is correspondingly beveled, so that when the falling standard is subjected to downward strains, which it will be when in

operation, the inclined portion of the lug will cause it to exert a downward force upon the trip-catch and press it downward upon the shoulders *i* of the falling standard, and thus insure the trip-catch from accidental displacement until released by pulling upon the trip-cord. The heavier the load, and consequently the heavier the downward strain, the more firmly will the trip-catch be held down in contact with the falling standard.

I claim several important advantages by this construction. By placing the trip-catch E all on one side of the shank A and forming it of a substantially right-angled form, and passing the trip-cord backward through the shank-eye, the point *d* is drawn back against the body of the shank when the trip is opened, as in Fig. 4, thereby preventing undue strains from being exerted upon the pivot *c* or the trip E, the strains being thereby confined to the upper end of the trip-catch and rendering the device more durable and less liable to breakage by rough handling. By passing the trip-cord backward through the eye *e* of the shank the latter becomes a guide to the former, so that the trip-catch may be operated without regard to the direction from which the cord is drawn. Consequently it is not necessary for the operator to stand in any particular position when the cord is pulled.

The cord might be passed backward through a separate hole made for it through the shank, or through an eyebolt connected to the shank, instead of through the eye *e g*; but this would be the equivalent of the construction shown and would not be a departure from the invention.

The correspondingly-beveled forms of the bearing-surfaces of the lug *b* and its socket in the trip-catch E is also an important feature of my invention, insuring, as before described, the tenacity of the union between the parts A and B.

G represents one of the endless slings which are placed over the wagon or rack before the load is placed thereon, and then brought up over the load and the "bights" *m* placed over the hooks *D'* *D*². Then when the load has been elevated above the point where it is to be discharged the trip-cord is pulled, which will release the falling standard B and cause

it to assume the position shown in Fig. 4 and permit one bight of the sling and its load to fall.

Under some circumstances, when very large loads are to be lifted, two additional hooks may be formed on the shank A and falling standard B, as shown in Figs. 5 and 6, to receive the bights of a second sling placed around the load at right angles to the first sling; but this would not affect the functions or mode of operation of the standards and trip and would not be a departure from the present invention.

Having thus described my invention, what I claim as new is—

The combination, in a trip-hook for hay-hoisting apparatus, of a shank A, having a hook on its lower end and an eye *e* on its upper end, a falling standard B, pivoted to the lower end of said shank and provided with a

hook on one side and with an outwardly-tapering lug *b*, having shoulder *i* on its free end, a right-angled trip-catch E, pivoted to said shank A, and provided with a slot for the reception of said beveled lug and with its upper end opposite the eye in said shank, so that the operating-cord *h* will pass backward from said trip-catch through said eye, and a spring F, adapted to press said trip-catch downward in contact with said shoulder and over said lug, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN HUDDERS PRICHARD.

Witnesses:

MARIG ROSSING,
OLLIE ROSSING.