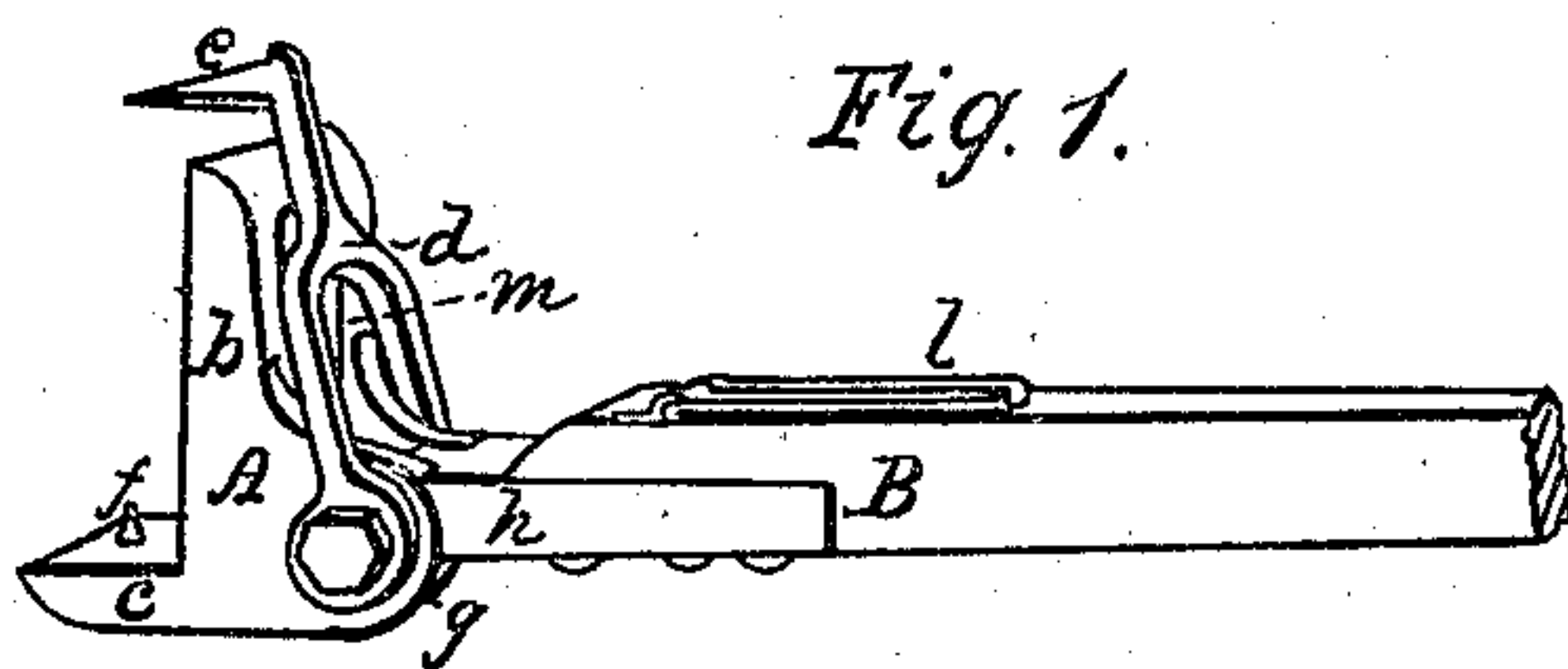


*A. Freeman.*

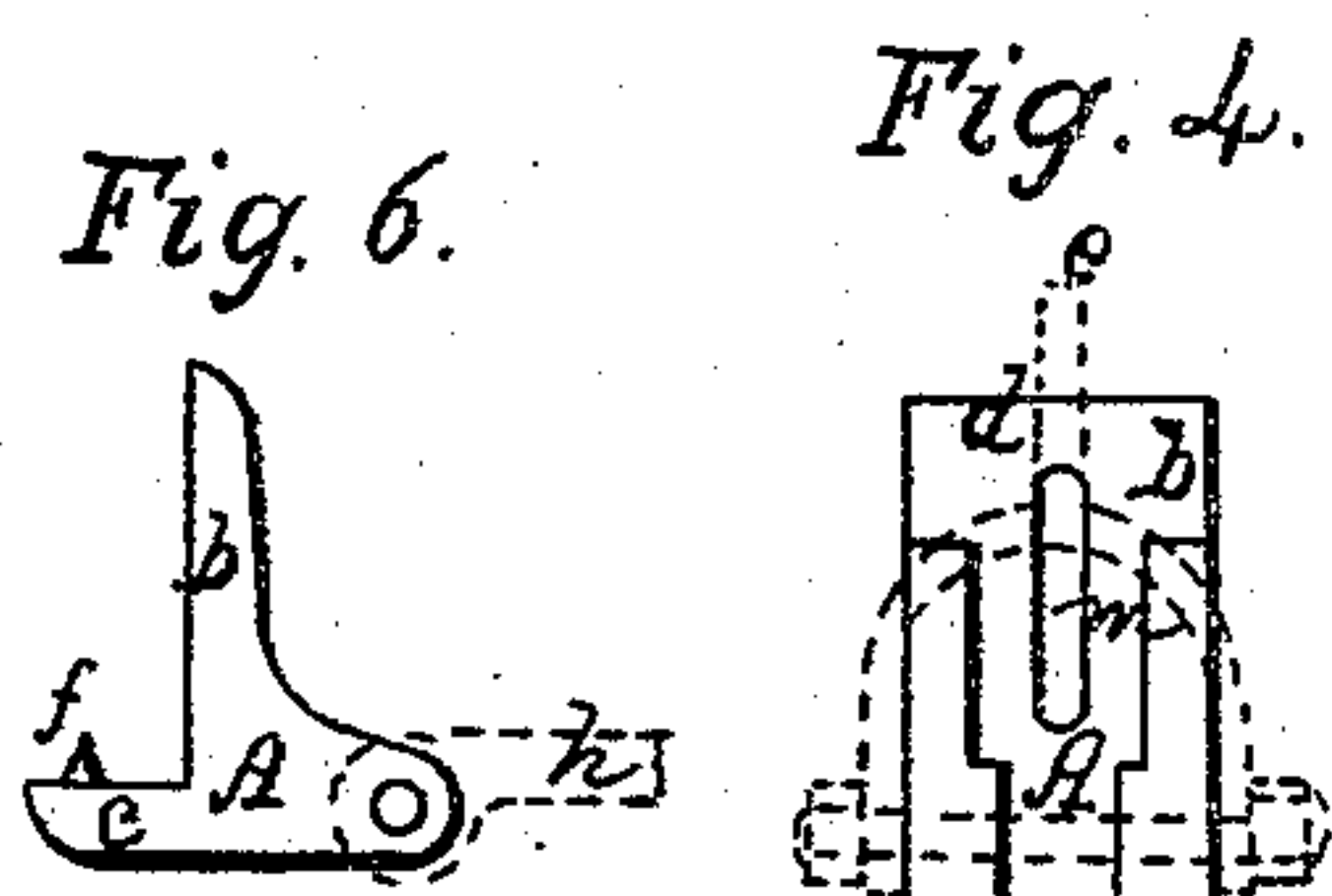
*Lifting Jack.*

*No. 98,683*

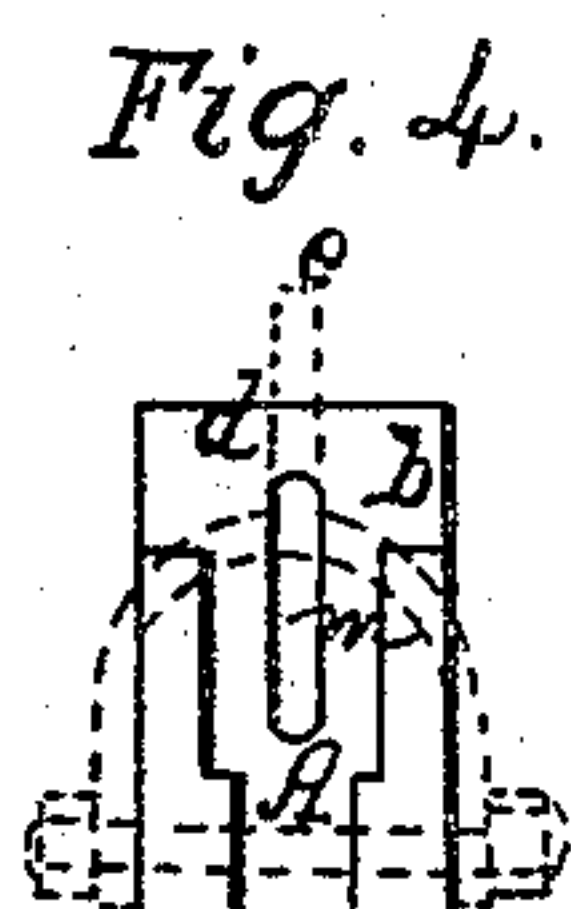
*Patented Jan. 11, 1870.*



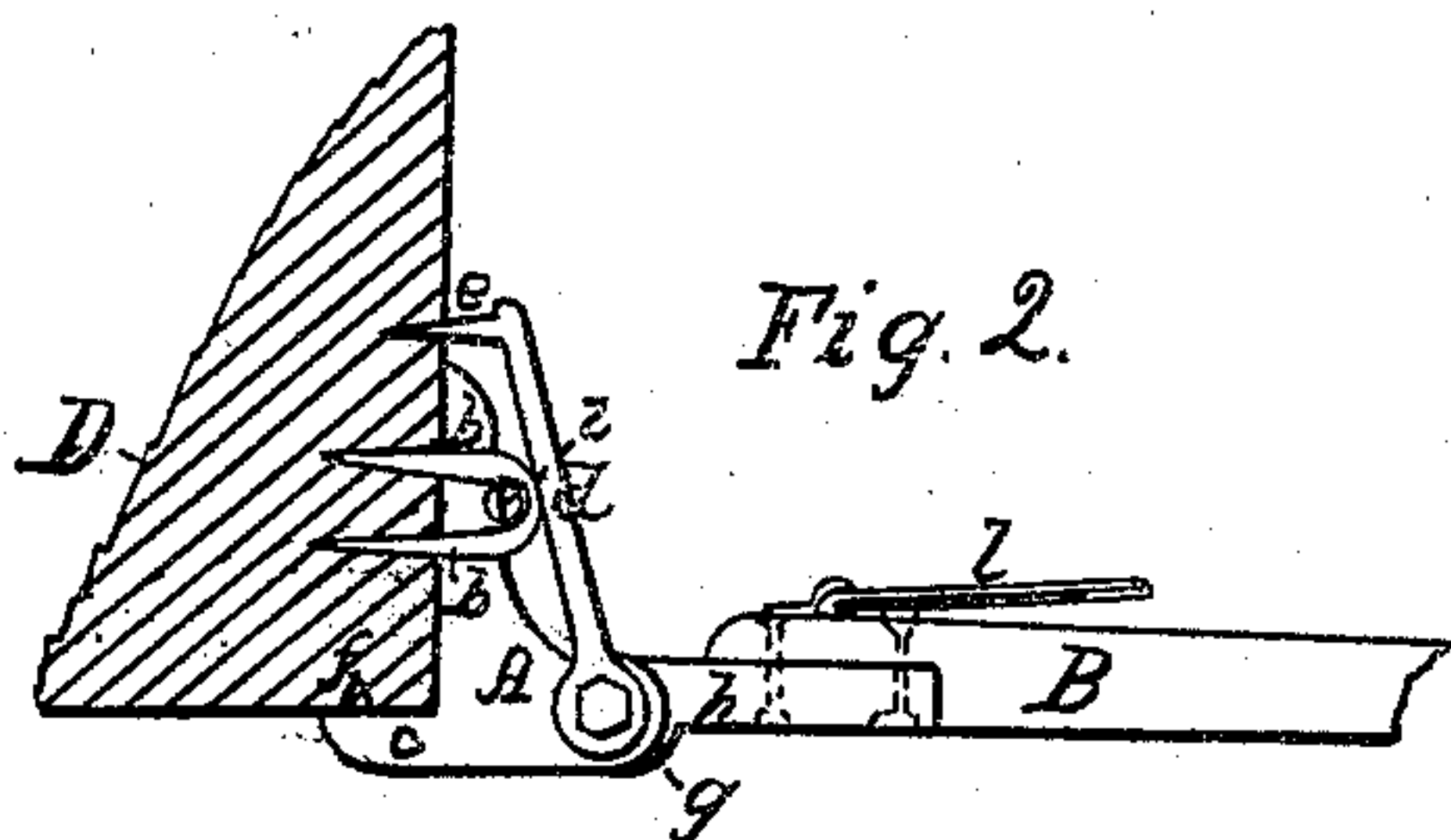
*Fig. 1.*



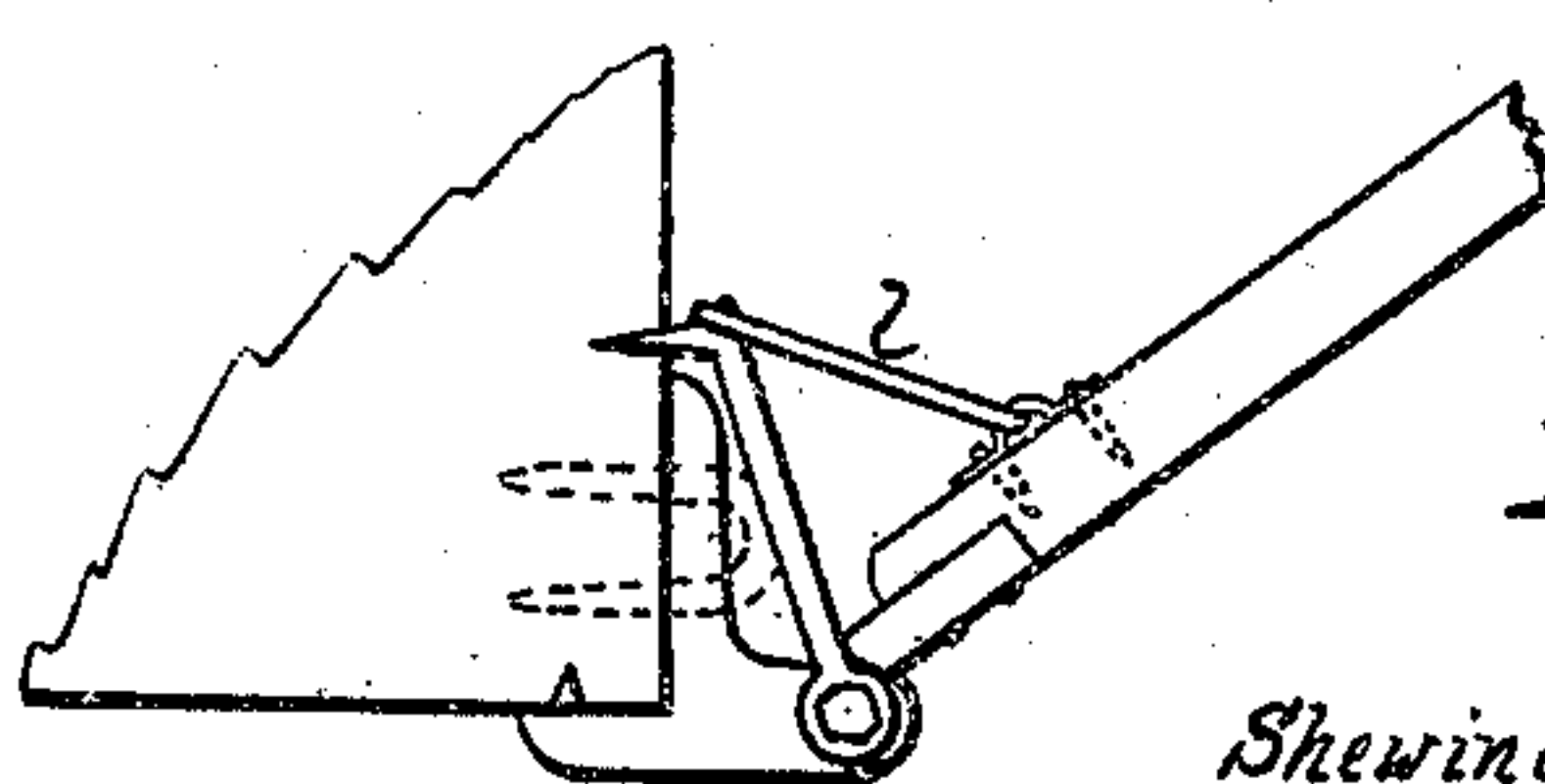
*Fig. 6.*



*Fig. 5.*

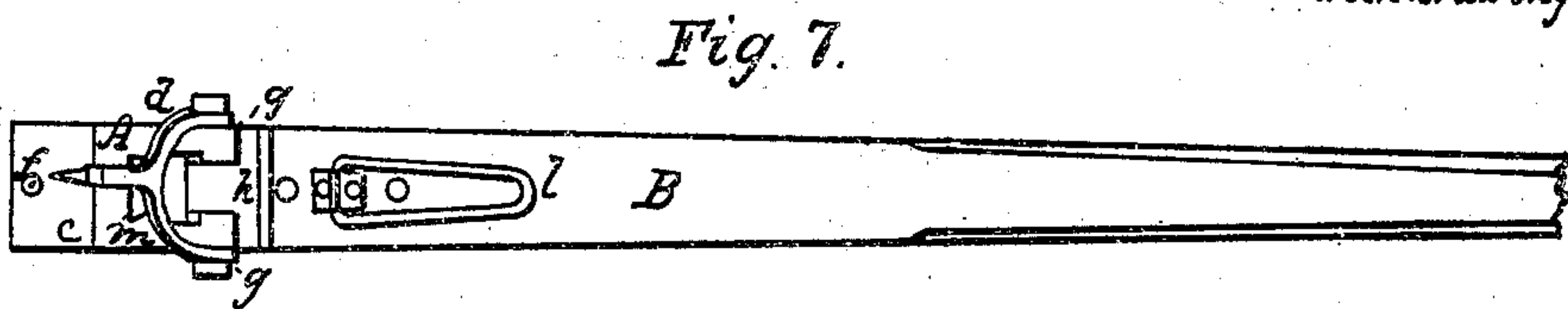


*Fig. 2.*

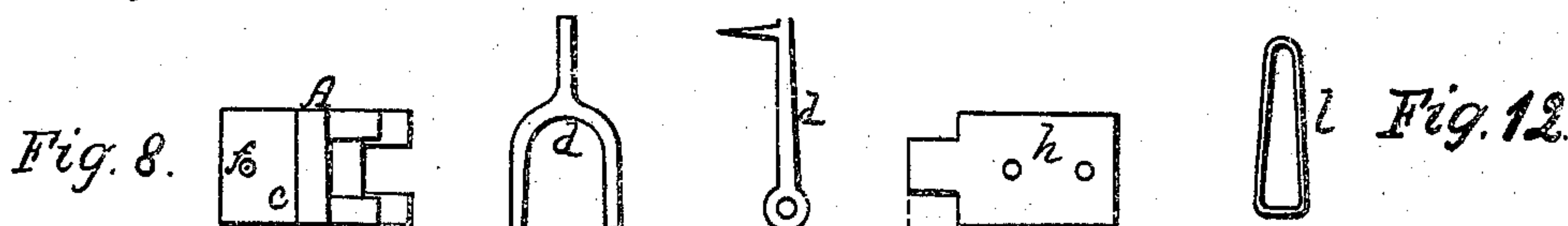


*Fig. 3.*

*Shewing action of link in withdrawing the hook*



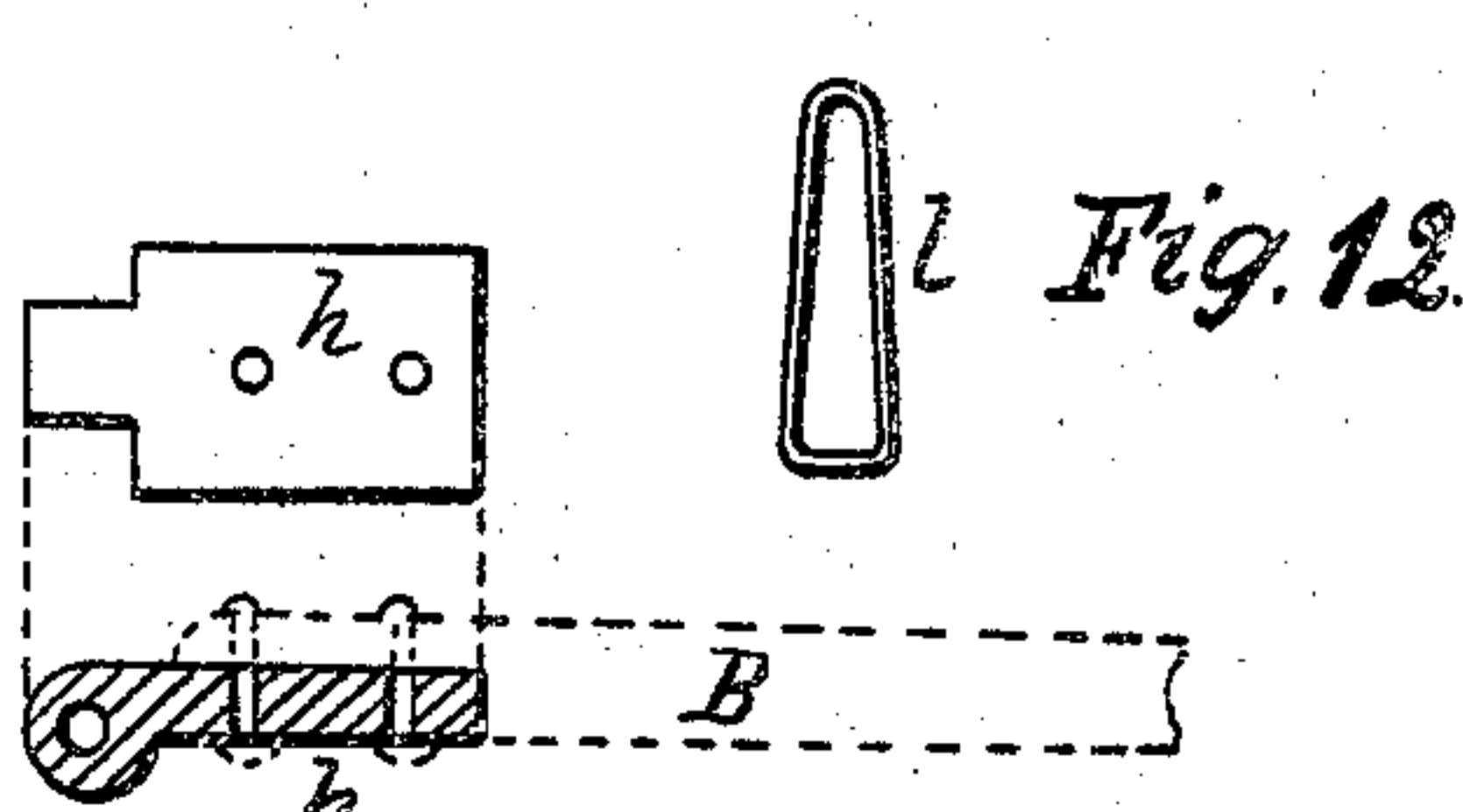
*Fig. 7.*



*Fig. 8.*



*Fig. 10.*



*Fig. 11.*



*Fig. 12.*

*Witnesses*

*J. Freeman*  
*W. A. Smith*

*Inventor.*

*A. Freeman per his*  
*Attorney G. B. Fowler*



# United States Patent Office.

ALFRED FREEMAN, OF PEORIA, ILLINOIS.

Letters Patent No. 98,683, dated January 11, 1870.

## IMPROVED RAILROAD PUSHING-JACK.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, ALFRED FREEMAN, of the city of Peoria, in the county of Peoria, and in the State of Illinois, have invented a new and improved Railroad Pushing-Jack; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, making a part of this specification, in which like letters of reference refer to like parts, and in which—

Figure 1 represents a perspective view.

Figure 2 is an elevation.

Figure 3 is a view showing operation of link.

Figure 4 is a front elevation of shoe.

Figure 5 is a plan of link and its attachment to lever.

Figure 6 is a side elevation of shoe.

Figure 7 is a plan of end of lever and shoe or attachment.

Figure 8 is a superficial view of shoe.

Figure 9 is a section of shoe.

Figure 10 is a view of spiked hook.

Figure 11 is a view of new head-plate or modification of former jack.

This invention is an improvement on my railroad pushing-jack, patented June 29, 1869, and consists of an attachment to the forward end of the horizontal lever of jack, by which a hold on end of car, for the lever, is maintained during the operation of moving car.

The shoe A is of a rectangular form, to receive the lower corner of a car, D, and has a horizontal extension or heel, about two inches long, terminating in two eyes, between which is received the eye *g*, of the plate *h*, at end of horizontal lever B, to form a hinge, the said plate *h* being a modification of the former forward point of said lever B.

The lower jaw, *c*, of this clamp or shoe A, has a spur, *f*, on its upper surface, long enough to take a good hold in the bottom of a car.

At the rear end of shoe A, is an oscillating spiked clamp, *d*, attached, by a forked stem, to the bolt *g*, or joint uniting the shoe A to the end of the jack, terminating in a horizontal spiked head, *e*, pointing toward the car, into which it is driven by a blow.

The upper surface of the angle of the clamp has a notch, large enough to receive the end of a link, *l*, which is fastened, by means of a ring-bolt, staple, or equivalent device, to the upper surface of the lever B.

The combination of the spur *f* and the spiked clamp *d* forms a strong and secure and ready attachment of the shoe A to the corner of a car.

For the purpose of adapting the connection of this shoe to cars of either soft or hard wood, and to obviate objections of railroad-managers, I also make the following addition to fastenings, either of which can be used at pleasure, viz:

The upper or vertical arm *b*, of shoe A, is slotted at *m*, to receive the end of a staple, *k*, projecting from the corner of a car, far enough in its rear to admit a

bolt, *i*, between the surface of the shoe and eye of staple, the two, the slot and staple, forming a separate and ready and secure attachment to cars, as the staple can be a permanent thing in a car.

A link, *l*, is attached to the surface of lever B, by staple or other fastening.

The pushing-jack, of which the above is an improvement, consists of a horizontal bar or lever, adjustable by eyes and bolt to required height on a vertical or inclined leg, which terminates in a forked foot, which binds the rail below, to make a fulcrum. Reference is had to said patent for a more complete description.

The operation of this device is as follows:

The shoe A is brought to the corner of the car D to be moved, the vertical arm *b* pressing against the vertical end of car, and the spur *f*, on the lower jaw *c*, of the shoe or clamp A, driven upward into the car. The point of the spiked clamp *d* is then driven into the car, the inclination of the spike being so constructed as to draw the shoe and spur *f* into the wood-work of car at each moment of its insertion, and thus form a strong and ready point of operation for the jack.

This combination of the hooked staple or oscillating clamp *d*, and the auxiliary spur *f*, together with the slot *m*, bolt *i*, and permanent staple *k*, (in the car,) is designed to make this device available for its application to cars of either hard or soft wood, the operator using either mode of attachment at his pleasure.

To remove the shoe A from car, the spiked oscillating hook *d* is withdrawn, by simply raising the lever, and bringing the free end of the link *l*, attached to lever, over the notch on the angle of the hook *d*, when a slight depression of lever releases the hook.

The superiority of the forked hook *d* over those with a single stem, forming no adequate brace, and in which the hook is liable to release itself, is obvious, as the forked form is not liable to these motions, and consequently does not injure the wood-work of car unnecessarily.

Having thus fully described my invention,

What I claim therein as new, and desire to secure by Letters Patent, is—

1. The shoe A, provided with the spiked clamp *d*, and auxiliary spur *f*, combined and operating as described, and the additional fastening, by means of the slot *m* in shoe, and fixed staple *k*, and bolt, as may be required, in combination with above, constructed and used substantially in the manner and for the purposes set forth.

2. The lever B, provided with the link *l*, in combination with the spiked clamp *d*, constructed and operating as described.

In testimony that I claim the foregoing, I have hereunto set my hand, this 13th day of July, 1869.

Witnesses:

ALFRED FREEMAN.

J. FREEMAN,

W. A. LOVETT.