

No. 708,045.

A. C. HOUDYSHELL.

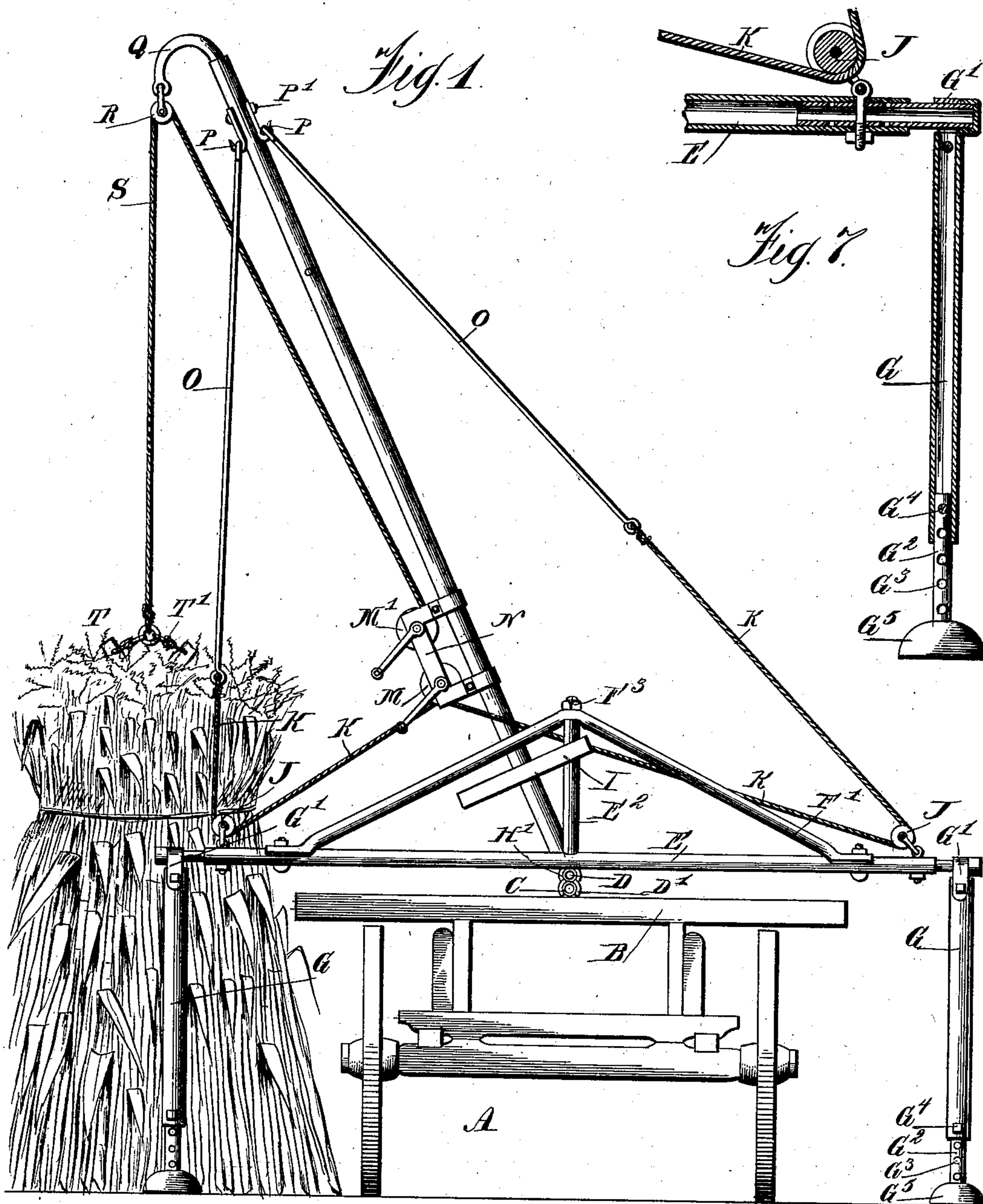
Patented Sept. 2, 1902.

SHOCK LOADER.

(Application filed Mar. 3, 1902.)

(No Model.)

3 Sheets—Sheet 1.



Witnesses

J. P. Goat.  
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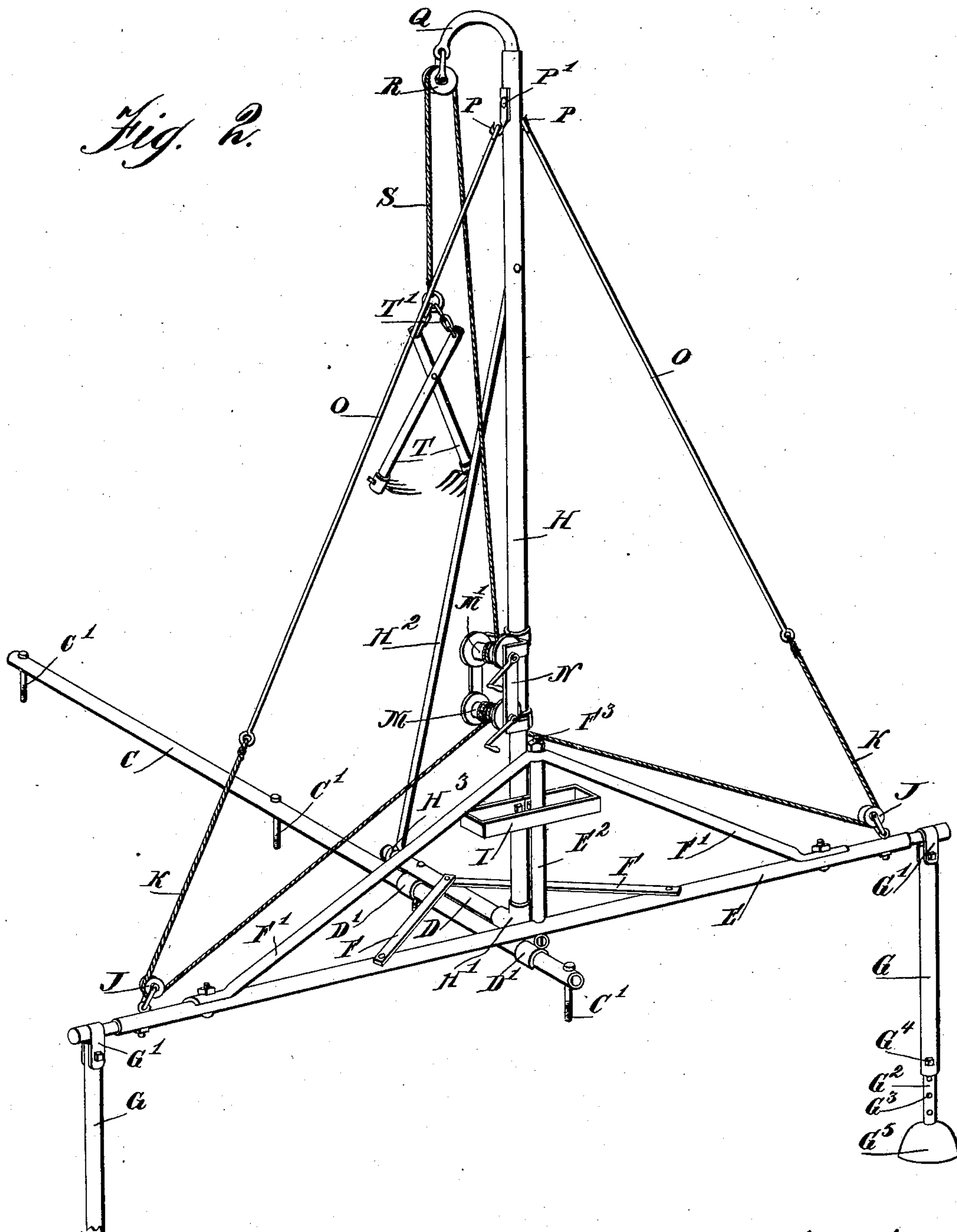
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Fig. 2.



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Fig. 3.

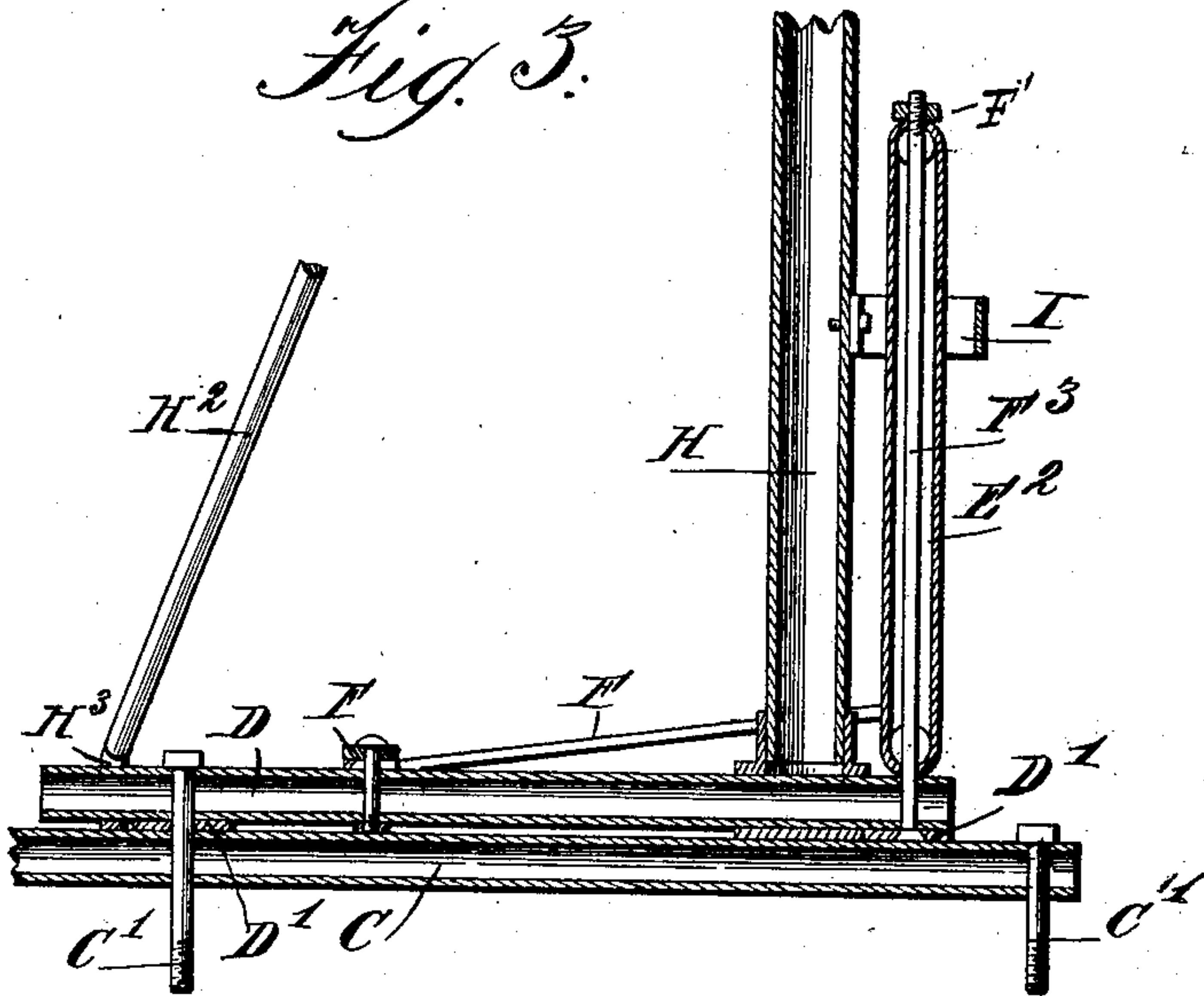


Fig. 4.

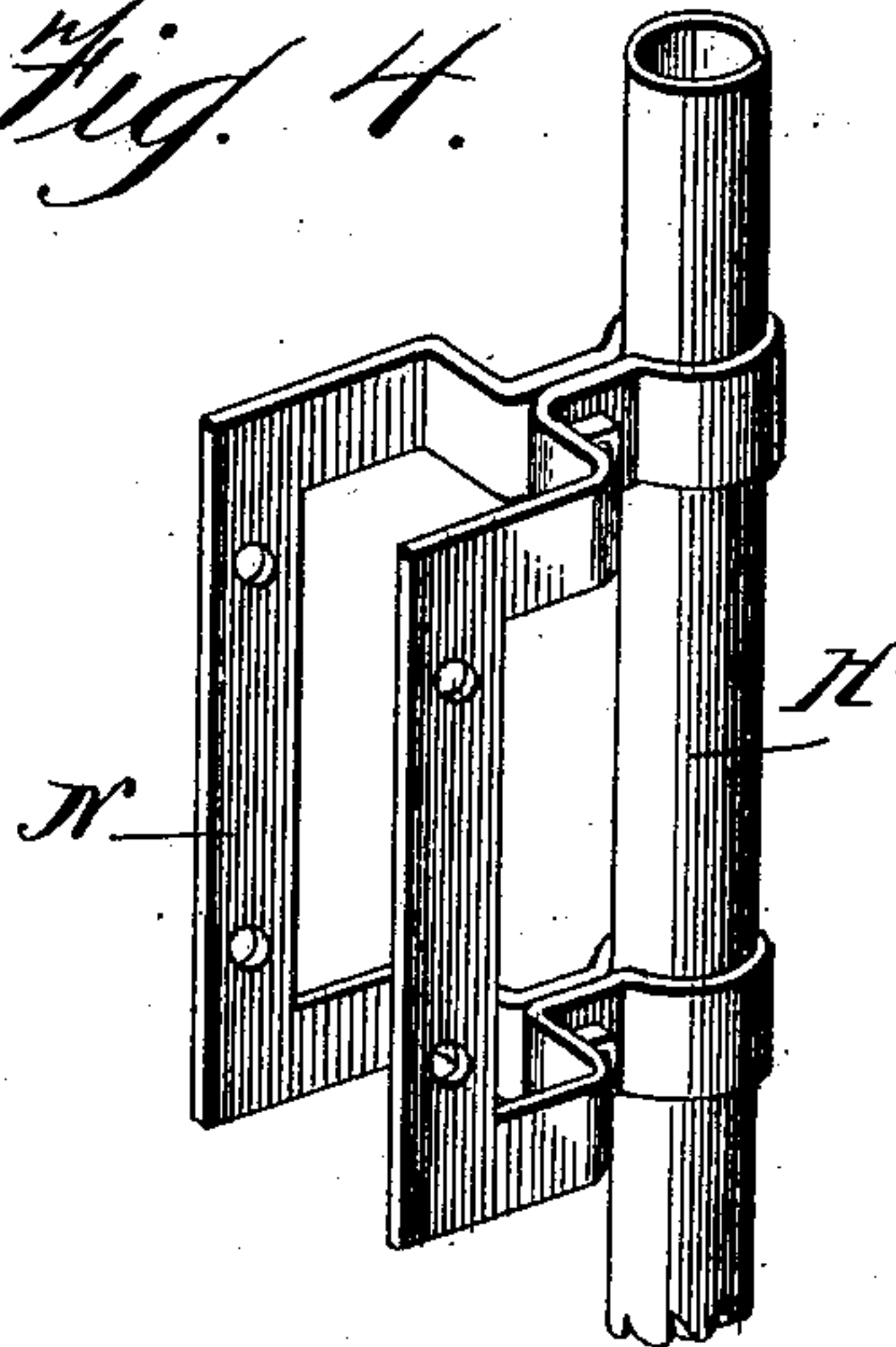


Fig. 5.

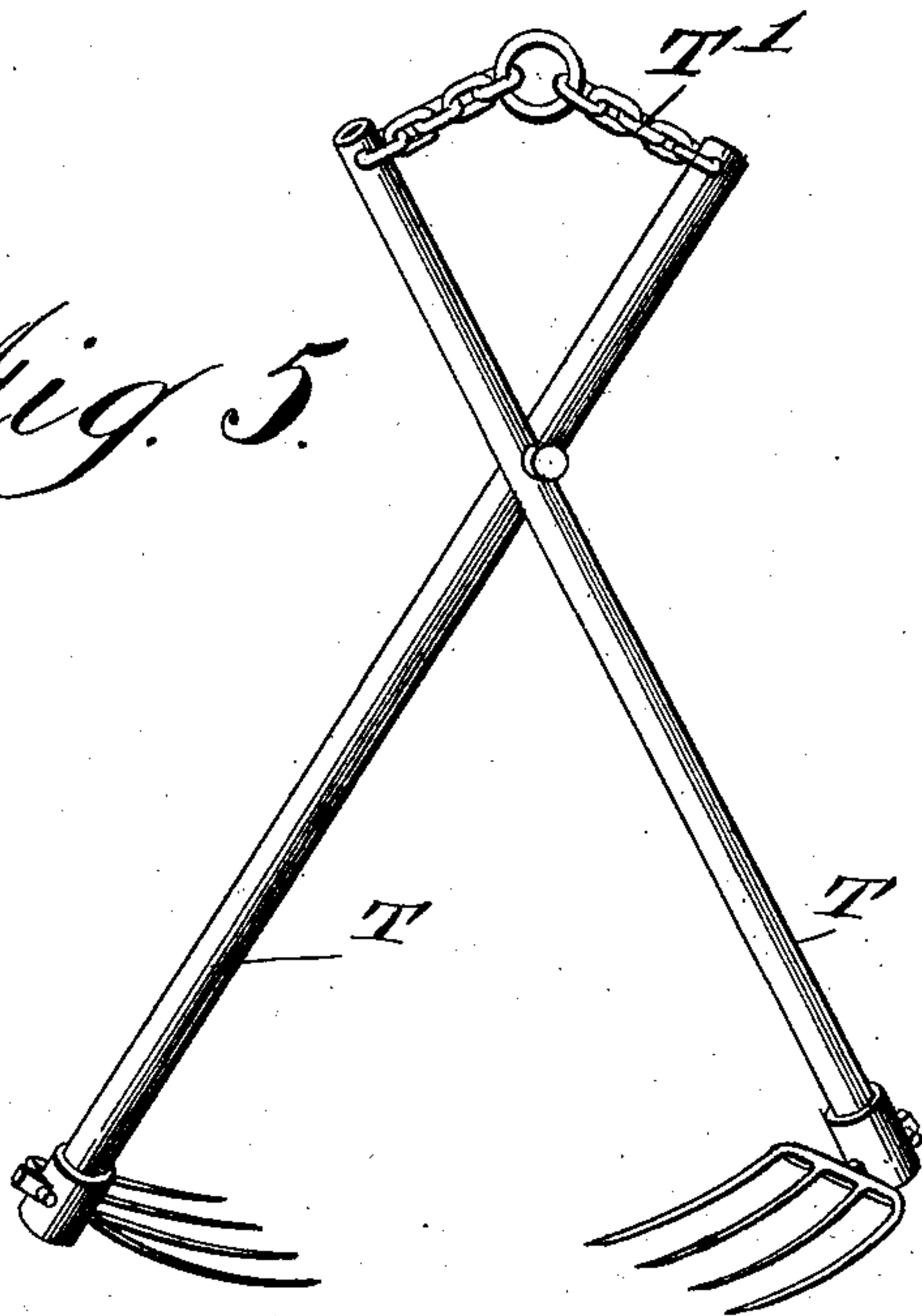
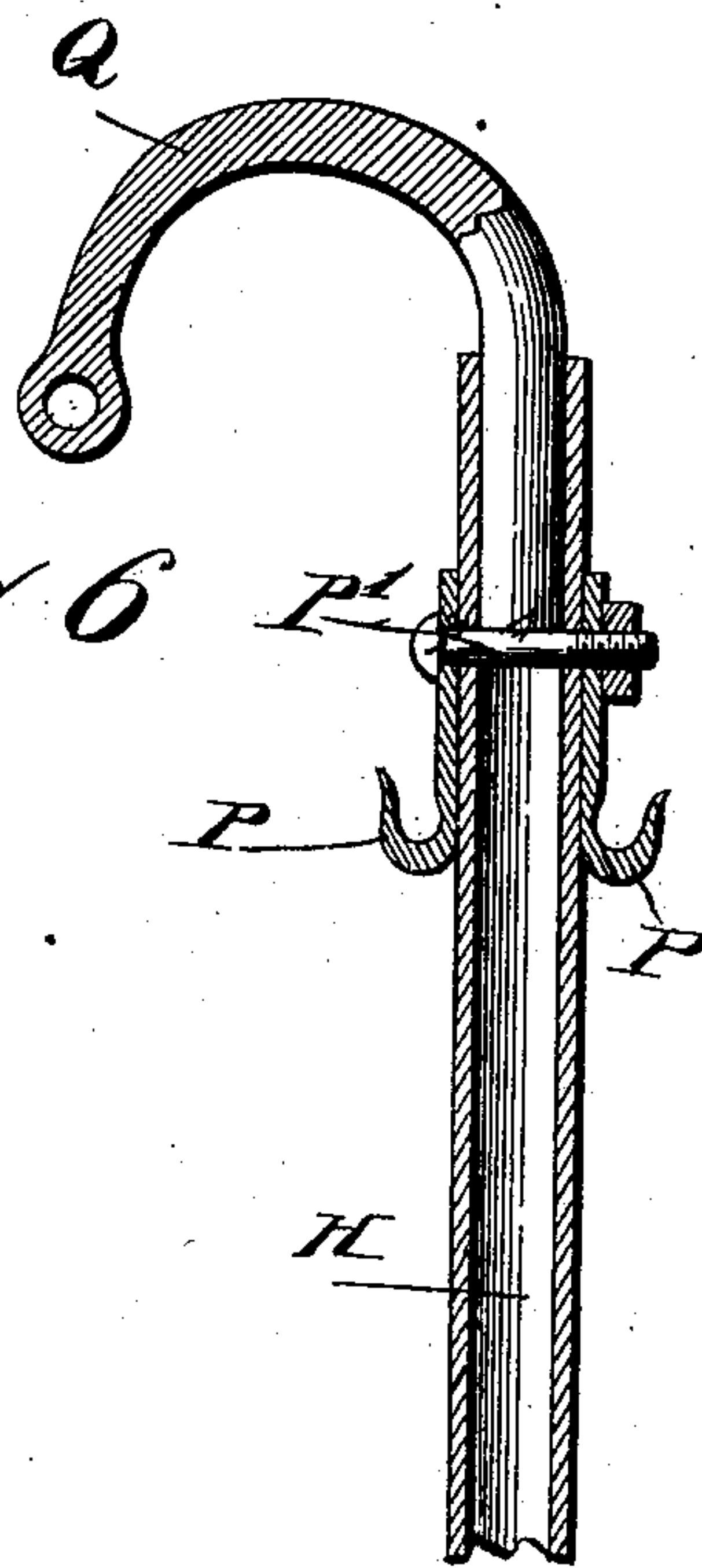


Fig. 6.



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# UNITED STATES PATENT OFFICE.

AARON C. HOUDYSHELL, OF TAMA TOWNSHIP, IOWA.

## SHOCK-LOADER.

SPECIFICATION forming part of Letters Patent No. 708,045, dated September 2, 1902.

Application filed March 3, 1902. Serial No. 96,549. (No model.)

*To all whom it may concern:*

Be it known that I, AARON C. HOUDYSHELL, a citizen of the United States, residing at Tama township, in the county of Tama and State of Iowa, have invented certain new and useful Improvements in Shock-Loaders, of which the following is a specification.

The object of this invention is to produce a machine for loading corn-shocks and the like so constructed as to perform this commonly tedious operation with ease and rapidity.

The nature of the invention will fully appear from the description and claims following, reference being had to the accompanying drawings, in which—

Figure 1 is an end view showing the machine as in use. Fig. 2 is a view of the machine in perspective detached from the wagon. Fig. 3 is a fragmentary mid-section showing the construction and mounting of the mast and connected parts. Fig. 4 shows the mounting for the windlasses. Fig. 5 is a view of the grab-forks. Fig. 6 is a partial section showing the construction of the upper end of the mast. Fig. 7 is a vertical section of the supporting-post and its connection to the main truss.

One of the most laborious operations in corn growing and harvesting is connected with the transportation of the cut corn from the field to the barn or shredder. This machine is designed to greatly expedite this operation and at the same time make it simple and easy.

The machine is in the nature of a derrick adapted to be mounted on the cornstalk or hay rack of a wagon and enabling the operator to lift the shocks bodily from the ground, swing them partially around, and deposit them in order on the rack. Its construction and operation will now be particularly described.

Referring to the drawings, A is an ordinary farm-wagon, and B is a hay-rack or special cornstalk-rack mounted thereon. On the projecting beams of the rack is mounted a rail, of gas-pipe or the like, C, provided with studs or bolts C' to enter holes bored for them in the rack-beams. On this rail is mounted a truss described as follows:

D is a rail lying above and parallel with the

rail just described. For convenience they may be designated as the "rack-rail" and the "truss-rail," respectively. The truss is provided with stirrups D', partially embracing the former and permitting the truss to move endwise of the rack as the loading progresses. Transverse to this truss-rail is secured the truss proper, E, suitably braced laterally by rods or bars F F' and vertically by the diagonal tie-rod F' and center post E<sup>2</sup>, which in practice is a short section of gas-pipe, with the bolt-rod E<sup>3</sup> passing through it and through both the truss-rail and the main truss, as shown in Fig. 2. The main transverse rail of the truss E is long enough to extend considerably outside the wagon-rack when in position, as shown in Fig. 1, and to each end is hung a supporting-post G by a suitable stirrup G'. The length of these posts is made adjustable by means of telescoping standards G<sup>2</sup>, provided with a series of holes G<sup>3</sup> and a pin G<sup>4</sup>. At the lower ends of the standard are broad heavy feet G<sup>5</sup>, adapted to rest on the ground at each side of the wagon and prevent the derrick from tipping over sidewise regardless of the load or the uneven condition of the ground.

On the truss-rail D is mounted the mast H by a pivotal connection, as by a T H'. The mast is braced by a rod H<sup>2</sup>, having a ring H<sup>3</sup> at its lower end to embrace the truss-rail, the mast thus being free to tilt sidewise, as shown in Fig. 1. A short distance up from the lower end the mast is provided with a stirrup I, embracing the truss-post E<sup>2</sup> and serving to support the truss in true vertical position. Near each end of the truss is attached a sheave J to take a rope K, passing around a windlass M, mounted in a suitable frame N, bolted to the mast. The ends of the rope connect with guy-rods O, hooked to the mast near its upper end, suitable hooks P being secured thereto for that purpose. The mast is tilted by turning the crank of the windlass M in either direction, as will be evident. In the upper end of the mast, with its foot resting on the bolt P', which secures the hooks to the mast, is mounted a goose-neck Q, with a sheave R depending from its outer end to take a rope S. One end of the rope is attached to a windlass M', mounted in the same frame as the windlass M, and the other



end connects with a grab-fork T. The grab comprises a pair of levers pivoted together, the upper ends connected by a chain T', to which the rope attaches, and inwardly-projecting forks secured at the opposite ends of said levers. In operation the forks are spread apart and thrust into the shock from opposite sides below the band. The pull of the rope then tends to draw them more closely together and hold the shock so securely that the whole may be lifted bodily. This is done of course by means of a crank on the windlass M'.

The operation of the machine is simple and calls for little explanation. The wagon being driven alongside the corn-shock, as shown in Fig. 1, the mast is tilted so the sheave at the end of the gooseneck is practically over the center of the shock. The grab is then let down and attached to the shock, as described, and then by means of the windlass M' the shock is lifted high enough to be set on the rack in standing position. When it reaches the proper elevation it is swung around to the rear, the gooseneck turning in the top of the mast for this purpose. By means of the other windlass the mast is tilted back in the other direction, carrying the depending shock as far over on the rack as may be necessary. The shock is there deposited by means of the lifting-windlass. The operator then slides the mast and its connections forward on the rack-rail, if necessary, and the operation is repeated with succeeding shocks. In practice all the operations are performed with ease and great rapidity considering the heavy and laborious nature of the work.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a shock-loader, the combination with a derrick having a mast-tilting truss mounted transverse to the loading-rack, and a rack

to support the same, of end supports for said truss adapted to rest on the ground, substantially as described. 45

2. In a shock-loader, the combination with a derrick-truss and a central support therefor, substantially as described, of adjustable end supports for the truss, with broad feet or bases to rest on the ground, substantially as set forth. 50

3. In a shock-loader, the combination of a tilting mast, a truss adjacent to the foot thereof, sheaves near the ends of the truss, a windlass mounted on the mast, and a guy-rope passing around the windlass and sheaves and connecting with the mast near its upper end. 55

4. In a shock-loader, the combination of a tilting mast, a truss adjacent to the foot thereof, means substantially as described for tilting the mast, a gooseneck mounted to turn in the top of the mast, a sheave depending therefrom, a lifting-windlass secured to the mast, a grab for holding the shock and a rope running over said sheave and attached at one end to the grab and at the other end to the windlass, substantially as described. 60

5. In a shock-loader, the combination of a rail adapted to rest on a wagon-rack, a derrick mounted to slide endwise thereon, said derrick comprising a rail mounted above and parallel with the longer rail, with suitable bearings to connect them slidably, a mast and brace therefor mounted pivotally on the upper rail, a truss attached to said upper rail and transverse thereto, a stirrup embracing the mast and center post of the truss, and means substantially as described for tilting the mast. 65

In testimony whereof I affix my signature in presence of two witnesses. 70

AARON C. HOUDYSHELL.

Witnesses:

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R. R. GRIFFITH. 75

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