

(No Model.)

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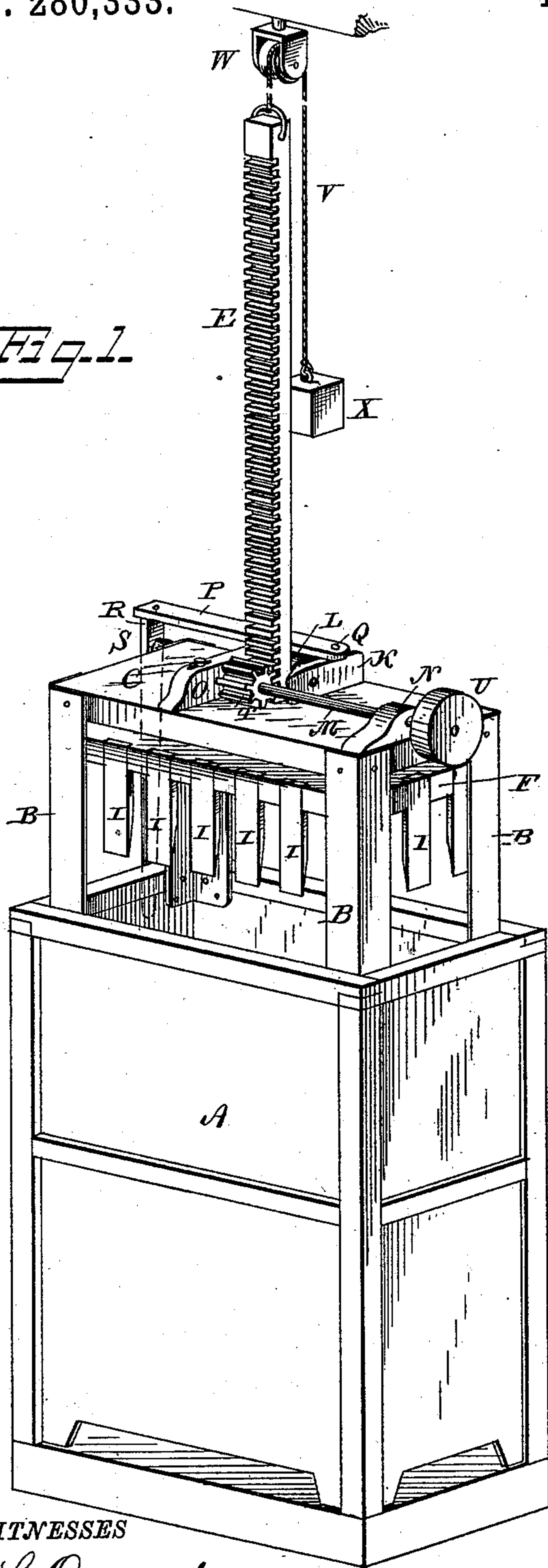
DE WITT C. SUMMERS.

DEVICE FOR PACKING COTTON, &c.

No. 280,333.

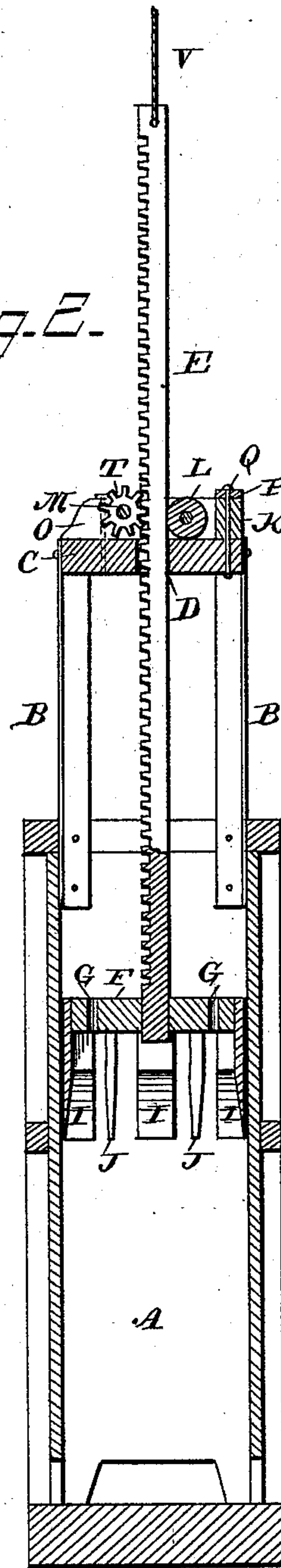
Patented June 26, 1883.

Fig. 1.



WITNESSES
F. L. Curand.
J. R. Little,

Fig. 2.



INVENTOR
D. W. C. Summers
by C. A. Smith & Co.
Attorneys

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

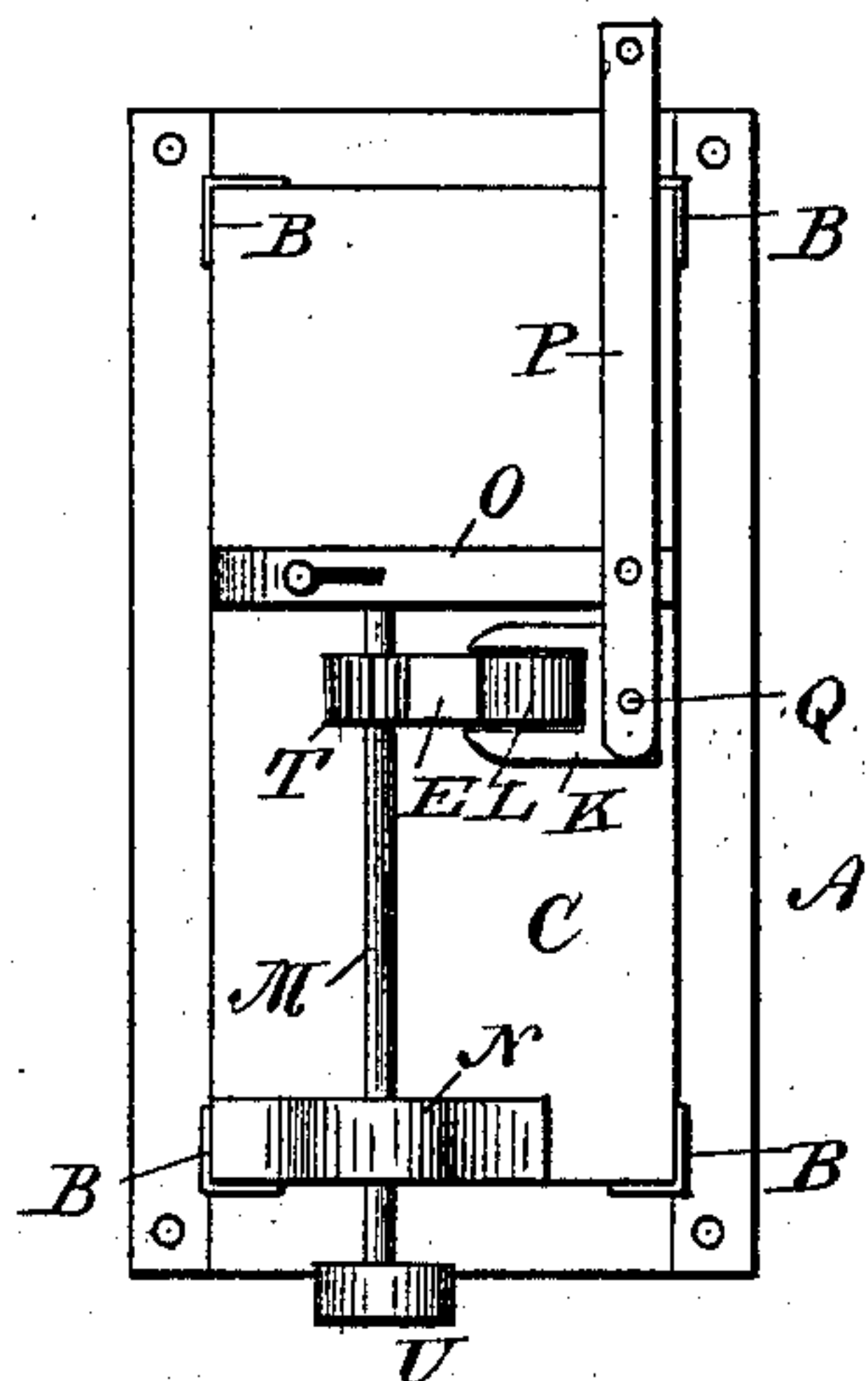


Fig. 4.

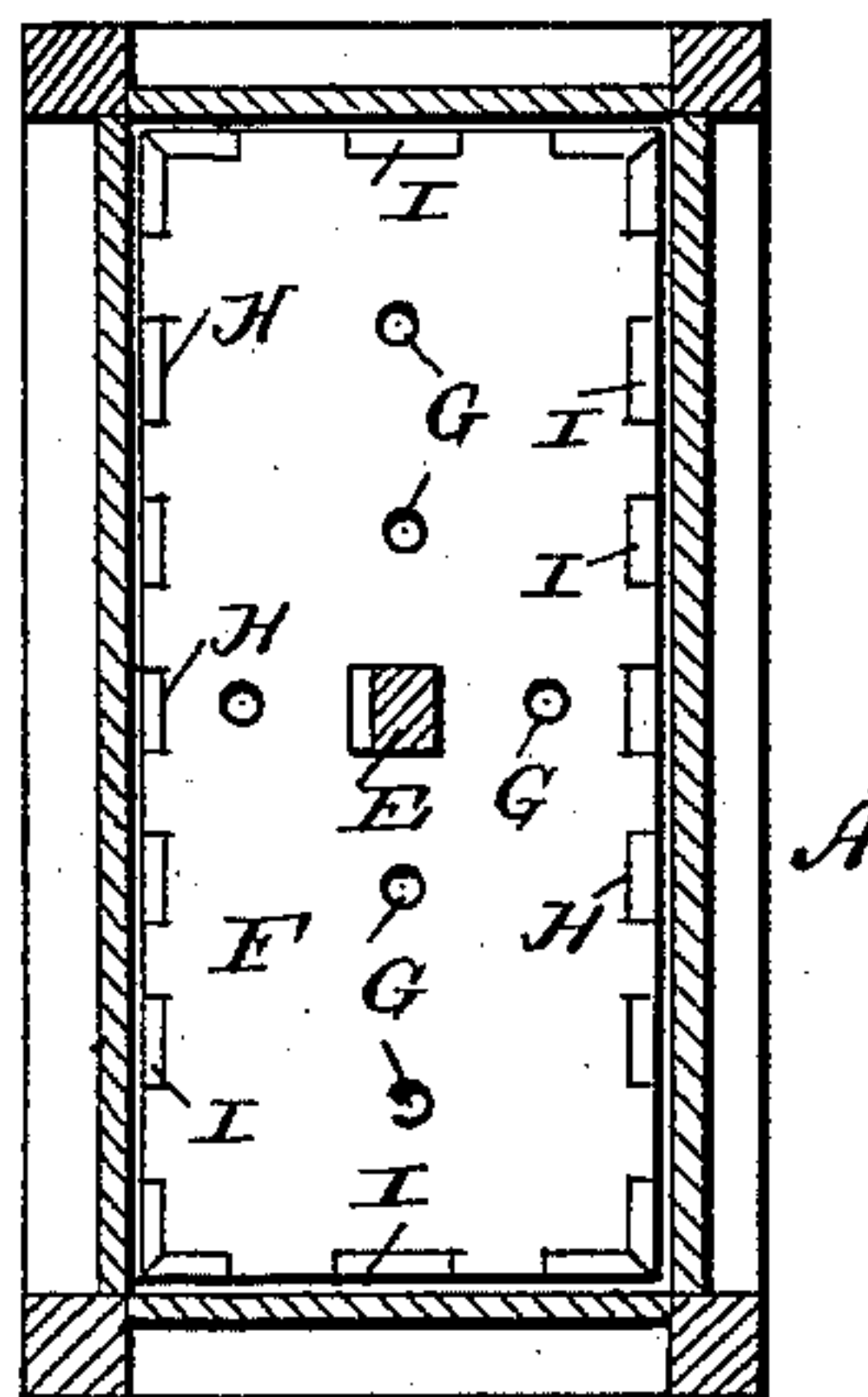
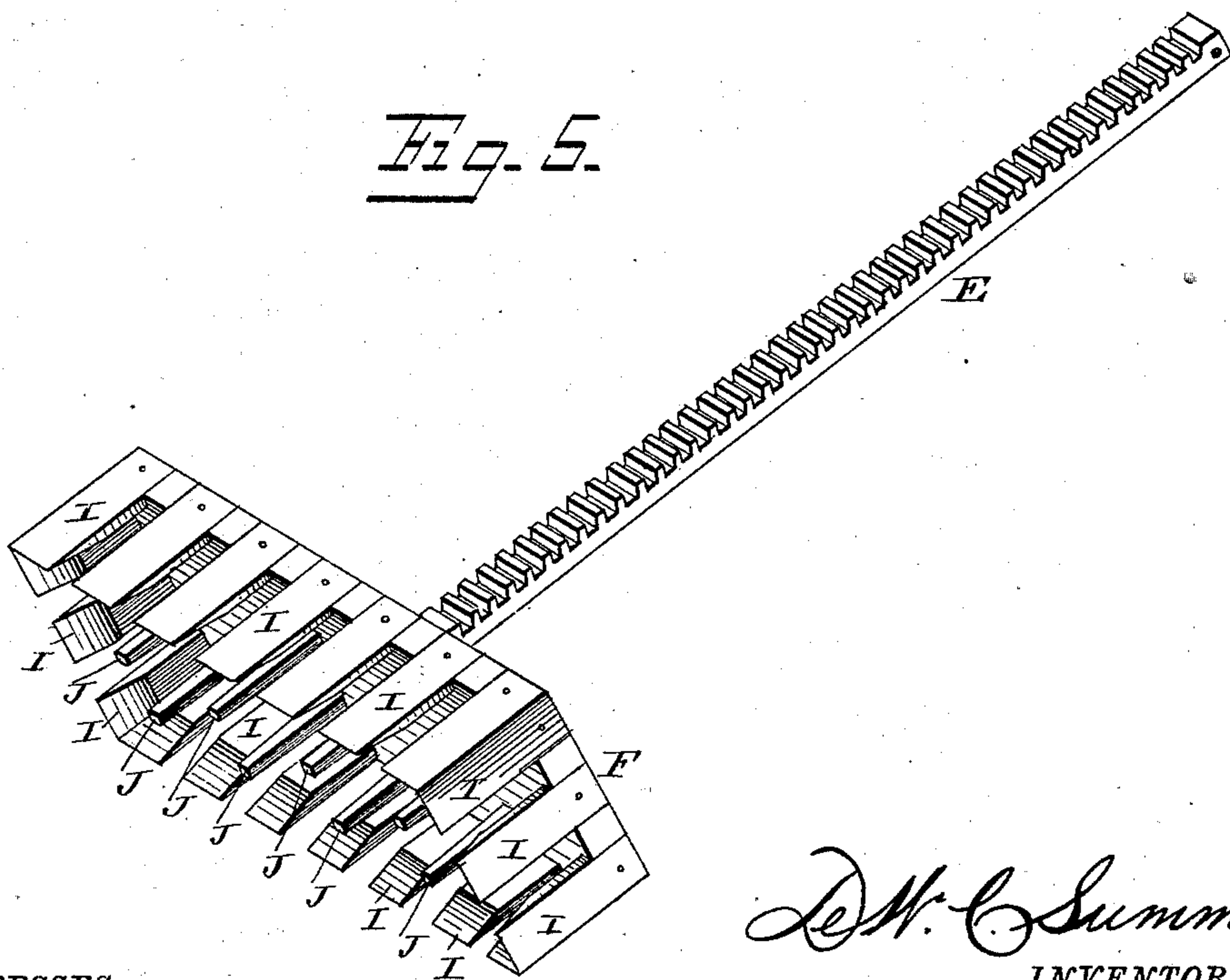


Fig. 5.



WITNESSES

F. L. Curand,
J. R. Little,

De Witt C. Summers,
INVENTOR

by *C. A. Snow & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

DEWITT C. SUMMERS, OF SUMMER'S MILLS, TEXAS.

DEVICE FOR PACKING COTTON, &c.

SPECIFICATION forming part of Letters Patent No. 280,333, dated June 26, 1883.

Application filed May 15, 1883. (No model.)

To all whom it may concern:

Be it known that I, DEWITT C. SUMMERS, a citizen of the United States, residing at Summer's Mills, in the county of Bell and State of Texas, have invented a new and useful Device for Packing Cotton or other Material, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to machines or devices for packing and compressing cotton and other material in press-boxes; and it consists in certain improvements in the construction of the same, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a perspective view of a press-box having my invention attached in position for operation. Fig. 2 is a vertical sectional view of the same, taken centrally through the press-box. Fig. 3 is a plan view. Fig. 4 is a horizontal sectional view, and Fig. 5 is a perspective view of the packer or follower detached.

The same letters refer to the same parts in all the figures.

A in the drawings designates the press-box, which may be of any suitable construction. The follower of the press proper and the means or power for operating the same are not shown in the drawings hereto annexed, and they form no part of my present invention. The press-box is provided at its four corners with upwardly-projecting angular guides B B, supporting a top piece or cap, C. The latter is provided with a central opening, D, through which slides a rack-bar, E, carrying at its lower end a follower, F, which slides vertically between the guides or angular uprights B B. The said follower, or "packer," as I prefer to call it, is provided with openings or perforations G G, through which the air, compressed in the press-box by the rapid and forcible descent of said packer, may escape. The sides and ends of the packer or follower are provided with recesses H, in which downwardly-projecting flat blades I I are secured, which said blades will be fitted nicely against the inner sides and ends of the press-box, and be sharpened at their lower ends or edges, and to the under side or surface of the packer are secured one or more rows of blunt pegs or stampers, J, of about the same length as the blades I.

To the upper side of the cap C, back of the

opening D, is secured a block, K, having bearings for the action of a friction-pulley, L, bearing against the rear side of the rack-bar E, and enabling the latter to move freely up and down.

M is a shaft arranged in front of the rack-bar E, and having its outer end journaled in a bracket, N, at one end of the cap C. The inner end of the said shaft is journaled in a transversely-sliding head-block, O, secured to the cap C by means of screws or bolts passing through slots in the said head-block.

P is a lever connected pivotally with the rear end of the head-block O, fulcrumed to the block K at Q, and having its outer or power end connected pivotally to the upper end of a lever, R, pivoted at S to the side of the press-box, and extending downwardly, so that its lower end shall be within convenient reach of the operator. The shaft M carries a pinion, T, arranged to engage the rack-bar, and it has at its outer end a band-wheel, U, adapted to receive a belt, by means of which power may be conveyed to the said shaft.

To the upper end of the rack-bar E is attached a rope, V, running over a pulley, W, journaled in a suitable bracket under the ceiling of the building where the press is located, and having at its other end a weight, X, which will overbalance the weight of the packer and rack-bar. This cord and weight may be sometimes dispensed with, as will be hereinafter stated.

It will be seen that by means of the levers R and P the head-block K may be moved, so as to bring the end of the shaft M, carrying pinion T, toward or from the rack-bar E, as may be desired, or, in other words, so as to throw the said pinion into or out of engagement with the said rack-bar, as may be desired. When the pinion engages the rack, it will drive the latter and the packer rapidly and forcibly in a downward direction. When it is thrown out of engagement, the weight X will overbalance and rapidly lift the same until stopped by contact with the cap-plate C. When in this position, the packer, with its blades and stampers, should be raised sufficiently above the upper edge of the press-box to enable the cotton or other material which is to be pressed to be conveniently thrown into the box. The packer may then be lowered one or more times, so as to pack or stamp the material thrown in.

The operation may then be repeated as often as necessary until the press contains a sufficient quantity of material to form a bale, which may then be compressed in the usual manner.

5 When desired, the rope and weight may be dispensed with, and the power conveyed to the shaft M be employed to raise or lift the rack and packer, which may then be allowed to drop by its own weight, so as to pack the
10 contents in the press-box. In this case the packer may be suitably weighted. The sharp, flat blades at the sides and ends of the packer will serve to loosen the material from the sides of the press-box, thereby avoiding excessive
15 friction, while the stampers and the body of the packer or follower serve to pack the material as compactly as is necessary.

By this device, which is simple, inexpensive, and easily operated, the labor of one or two
20 men may be dispensed with, and the labor of packing be performed in less time and in a more satisfactory manner.

I claim as my invention and desire to secure by Letters Patent of the United States—

25 1. The combination, with a press-box having upwardly-projecting angular guides, of a vertically-sliding packer or follower, provided at its sides and ends with downwardly-projecting flat, sharp blades, substantially as set
30 forth.

2. The combination, with a press-box, of a vertically-sliding follower, provided at its sides and ends with downwardly-projecting flat, sharp blades, and having one or more rows of
35 blunt pegs or stampers projecting downwardly from its under side, substantially as set forth.

3. The combination, with a press-box, of a vertically-sliding packer or follower having perforations for the escape of the air com-

pressed in the press-box by the descent of the
40 said follower, provided at its sides and ends with downwardly-projecting flat, sharp blades, and having one or more rows of downwardly-projecting blunt pegs or stampers secured to its under side, substantially as and for the
45 purpose set forth.

4. The combination of a press-box having upwardly-projecting angular guides, a cap-piece supported by said guides, a vertically-sliding packer or follower having a rack-bar
50 extending through a central opening in the said cap, a shaft carrying a pinion adapted to engage the said rack, mechanism for throwing the said pinion into and out of engagement with the said rack, and mechanism for lifting
55 the rack and packer when released from the pinion, substantially as set forth.

5. The combination of the press-box having upwardly-projecting angular guides, the cap-piece, the vertically-sliding rack having the
60 follower or packer, a friction-roller bearing against the rear side of said rack, a shaft arranged in front of the rack, and having one end journaled in a bracket and the other in a transversely-sliding head-block, a lever pivot-
65 ed to the side of the press-box, and a lever fulcrumed rear of the rack-bar, and connected pivotally with the sliding head-block, and with the upper end of the lever pivoted to the side of the box, substantially as and for the purpose
70 set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

DEWITT C. SUMMERS.

Witnesses:

F. D. BANNING,
W. B. GREENLEE.