

(No Model.)

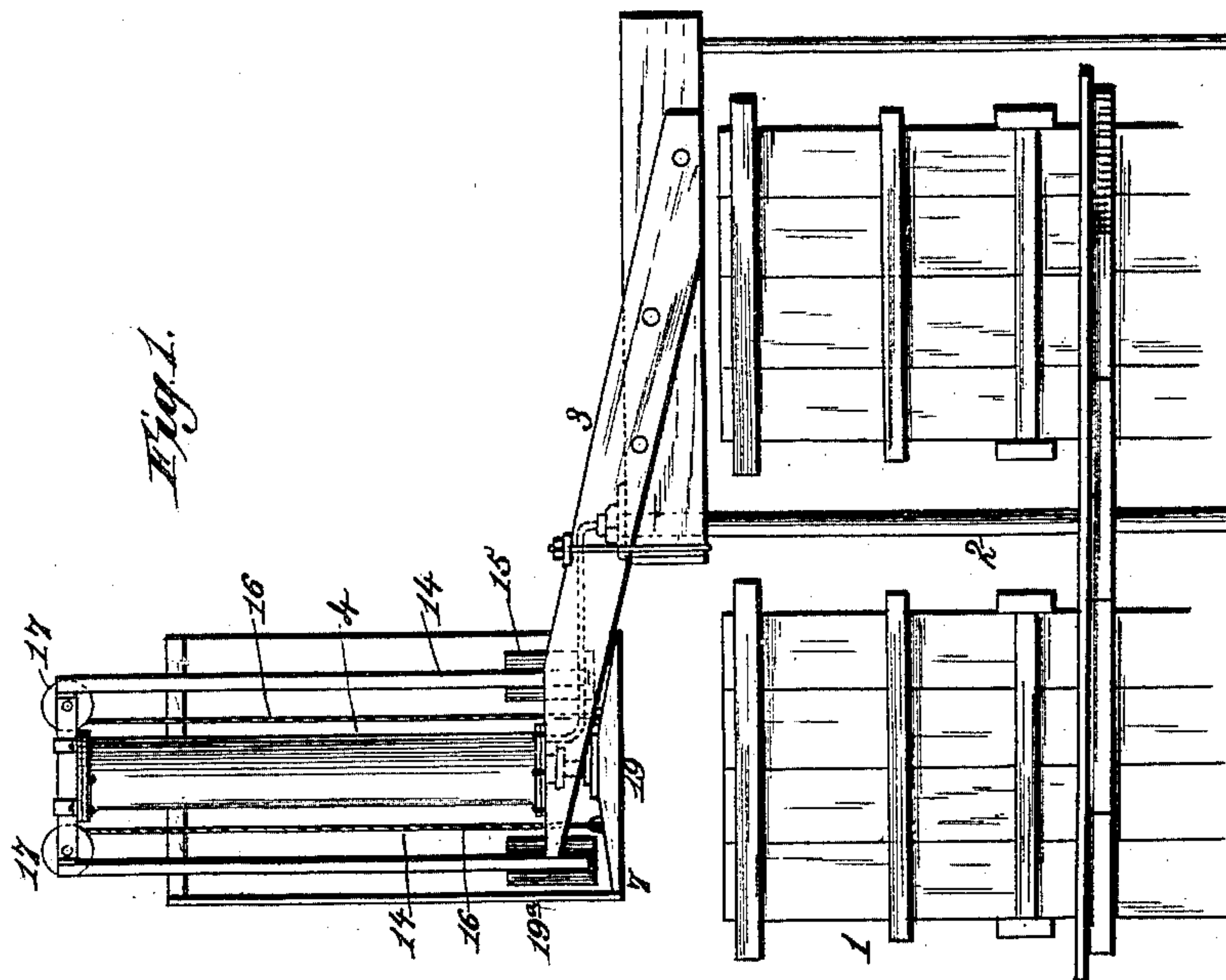
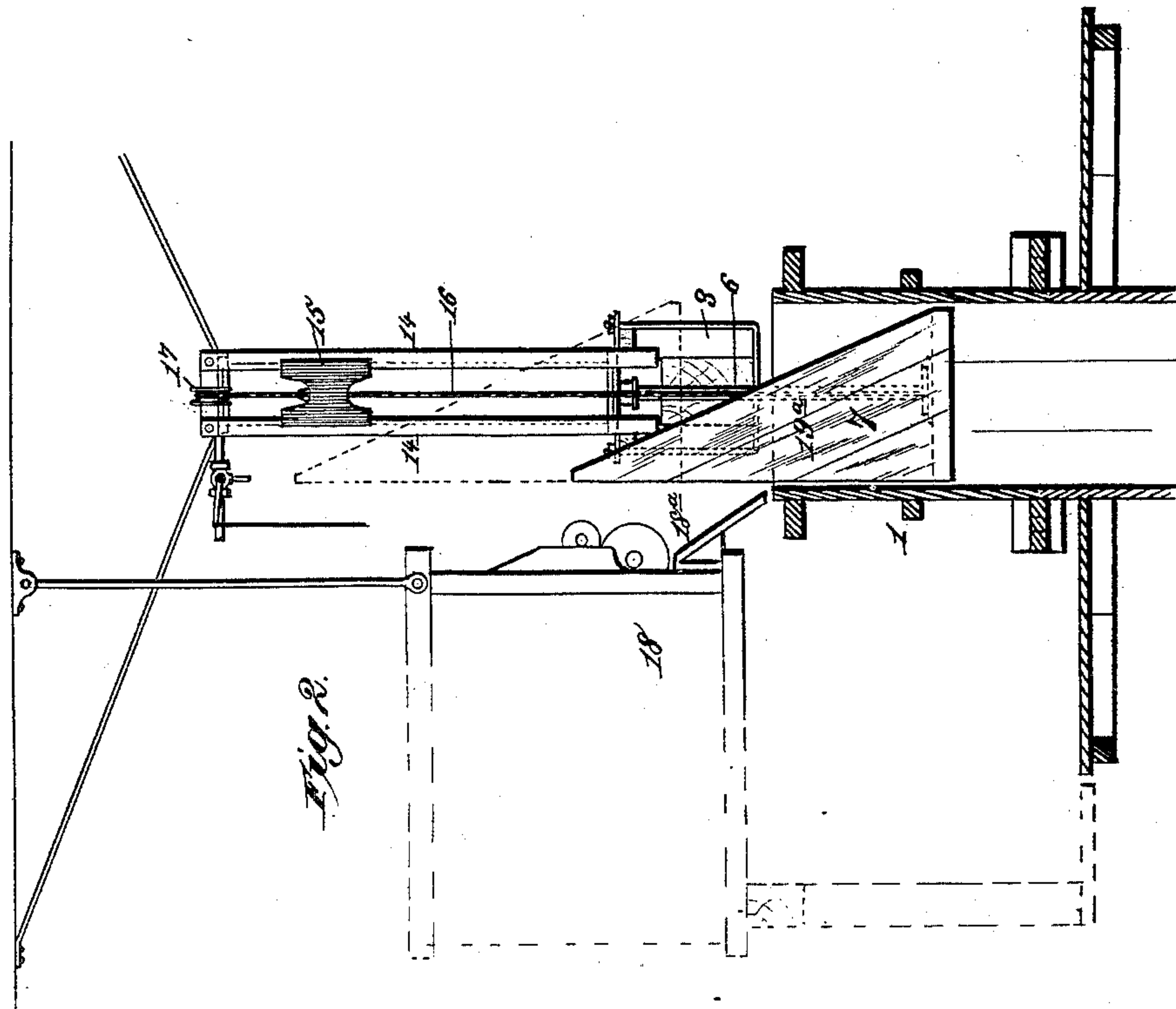
2 Sheets—Sheet 1.

R. S. MUNGER.

COTTON PRESS.

No. 394,125.

Patented Dec. 4, 1888.



Witnesses.  
*Robert G. Pratt,*  
*Percy B. Hills.*

Inventor.  
*Robert S. Munger.*  
By *James L. Norris*  
*Atty.*

(No Model.)

2 Sheets—Sheet 2.

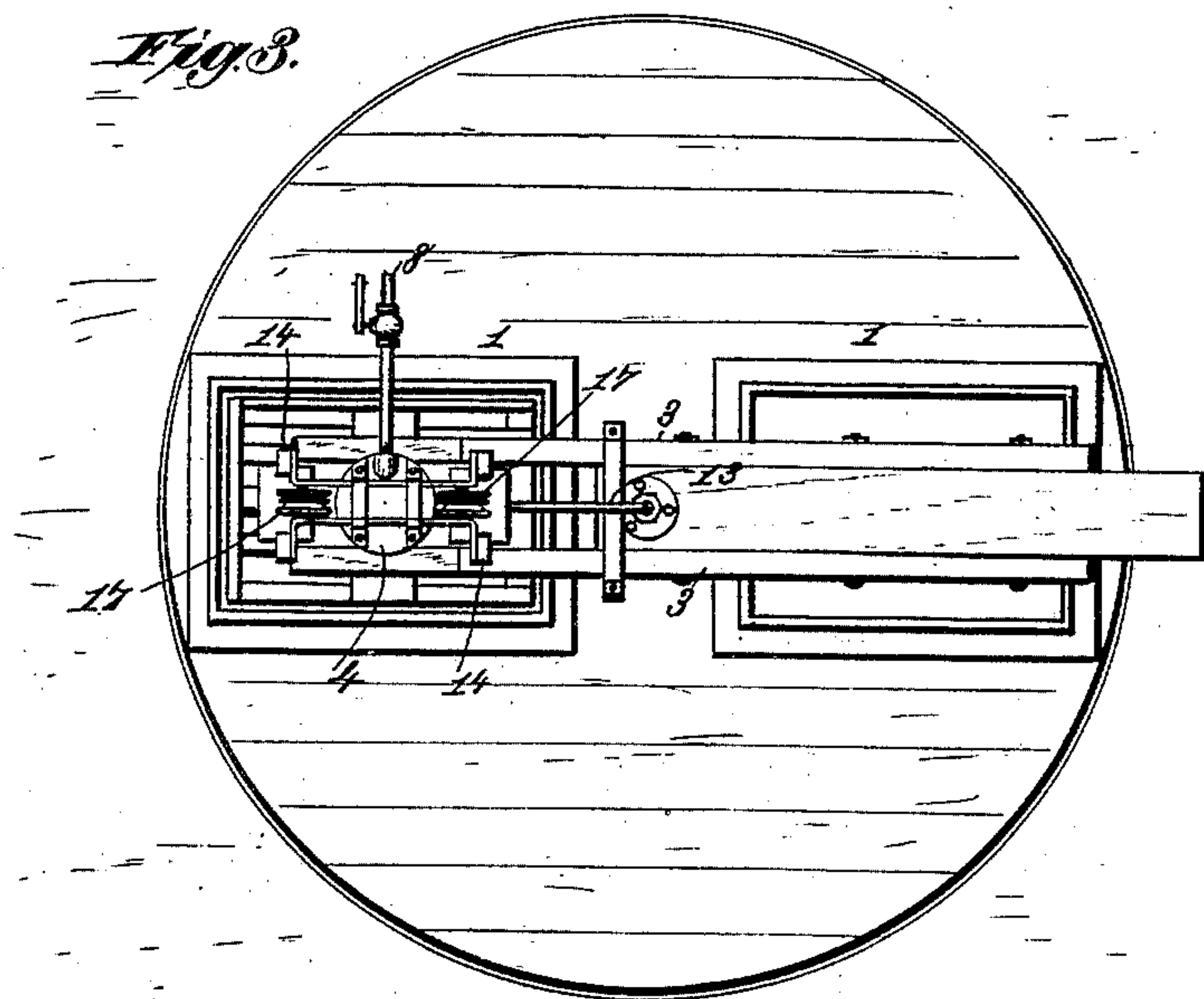
R. S. MUNGER.

COTTON PRESS.

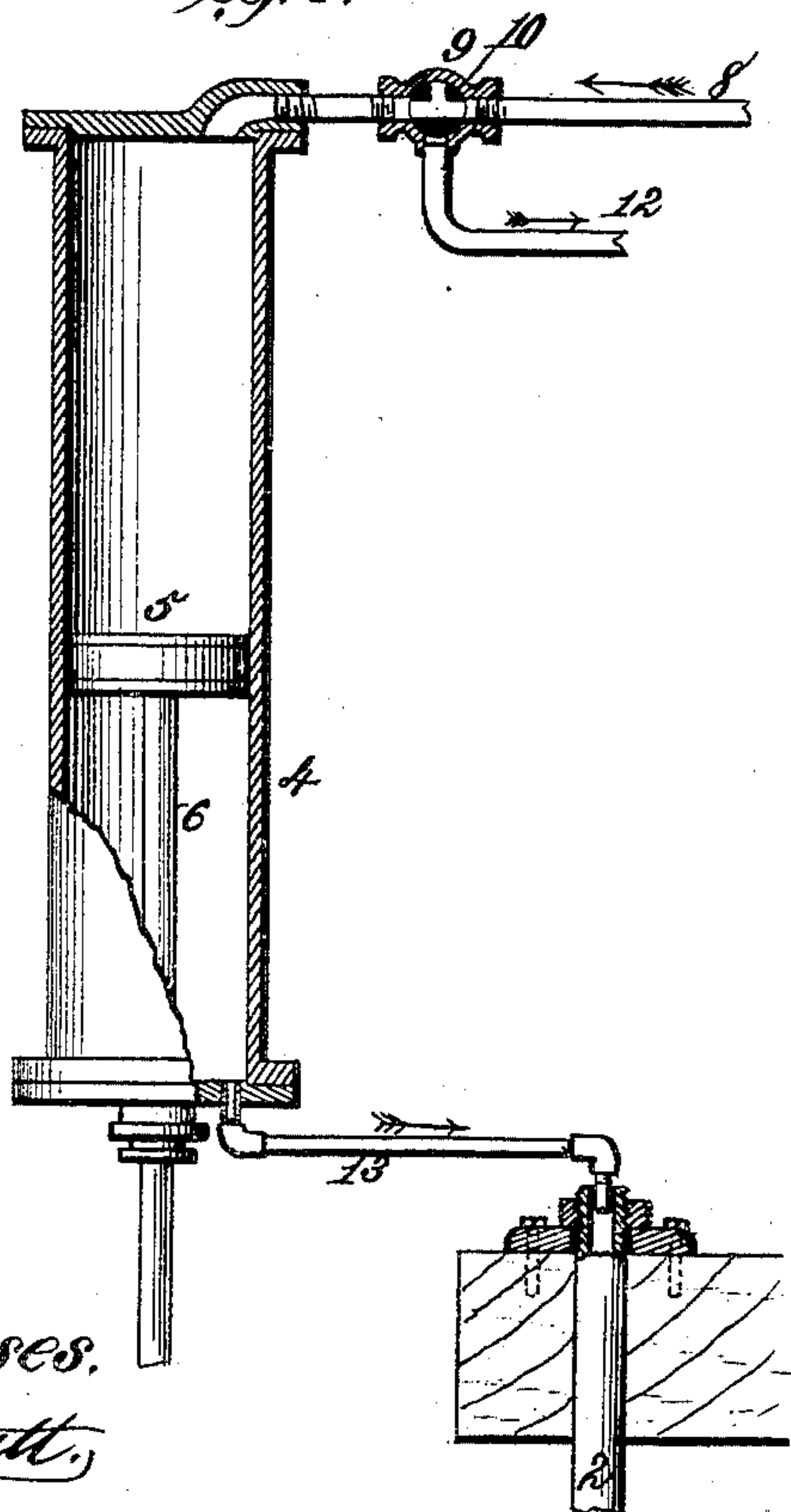
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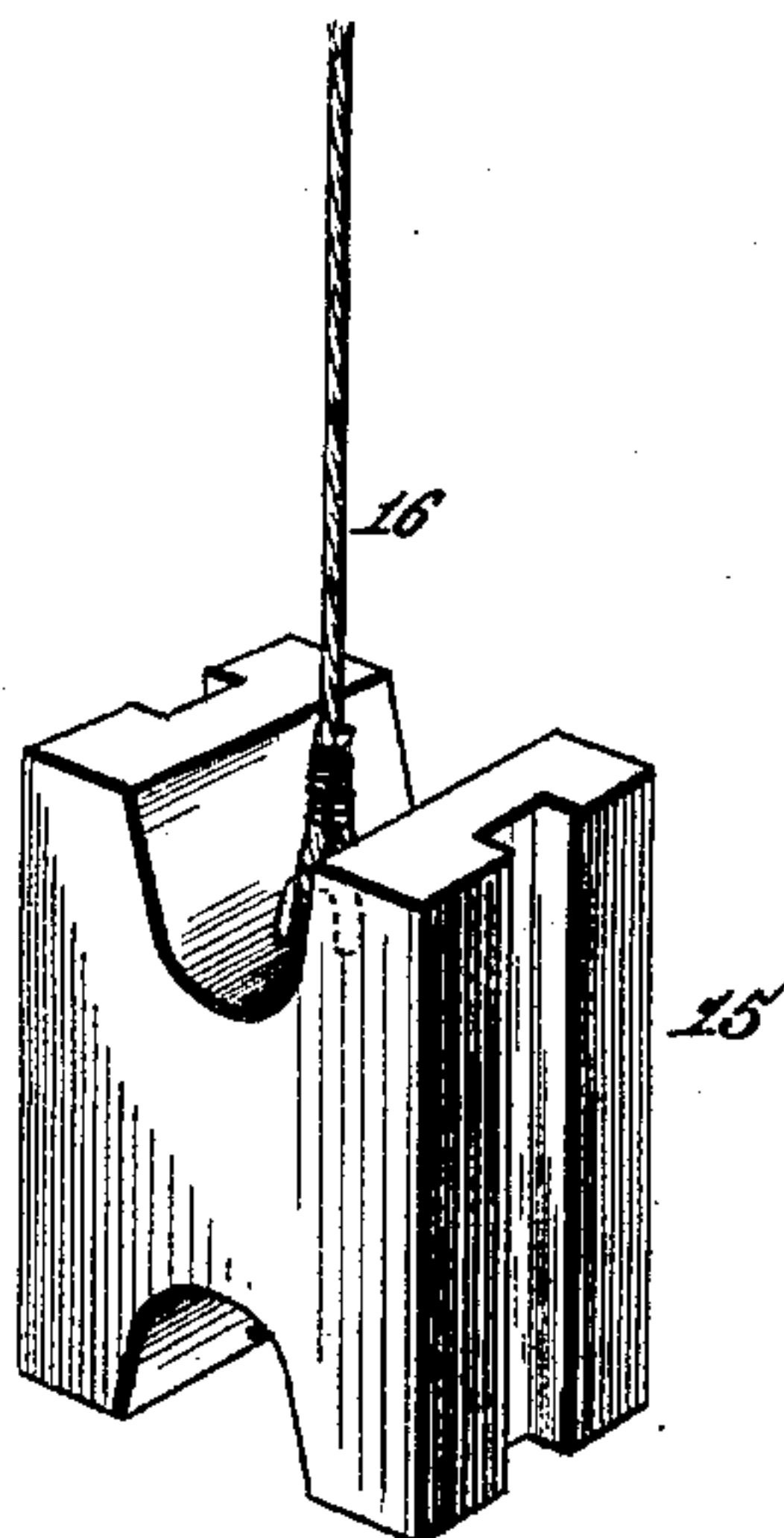
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



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# UNITED STATES PATENT OFFICE.

ROBERT S. MUNGER, OF DALLAS, TEXAS.

## COTTON-PRESS.

SPECIFICATION forming part of Letters Patent No. 394,125, dated December 4, 1888.

Application filed June 16, 1888. Serial No. 277,282. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT S. MUNGER, a citizen of the United States, residing at Dallas, in the county of Dallas and State of Texas, have invented new and useful Improvements in Cotton-Presses, of which the following is a specification.

My invention has for its object to provide novel means for handling lint-cotton, whereby I effect the compression or packing of the cotton in the press-box by mechanical means, instead of sending men into the box to tramp the cotton down as it is thrown or fed in.

Heretofore in packing lint-cotton it has been customary in many instances to place one or more men in the press-box, who tramp the lint as it enters the box and compress or pack it by the action of their feet and the weight of their bodies. This work is not only slow, laborious, and more or less imperfect, but it is so dangerous to health, owing to the constant inhalation of particles of cotton, together with the dust and other impurities with which the air is constantly charged, that it is always exceedingly difficult, if not impossible, to secure labor for this purpose. Few employes can endure the atmosphere, heat, and labor of the press-room, and still fewer can bear the injury to the lungs and general health caused by a short period of labor in tramping lint-cotton.

It is the purpose of my invention to provide simple and comparatively inexpensive mechanism for the purpose specified, whereby the packing and compression of the cotton shall be effected by a steam-actuated follower, which is lifted by the action of one or more weights, thus greatly simplifying the steam mechanism, dispensing with the valve movements, steam-chest, and other parts required when steam is used upon both sides of the piston, and thereby decreasing the cost of the mechanism in a proportionate degree.

It is a further purpose of my invention to so construct the follower that it may be used as a shield to hold back the lint and prevent it from entering the press-box during the time the follower is in operation, whereby the mechanism may be used in conjunction with a continuously-operating gin and condenser. I also contemplate the combination, with this

type of steam-packing mechanism, of a duplex press-box, one member of which is filling and packing, while in the other the bale may be compressed and tied simultaneously.

To these ends my invention consists in the several novel features of construction and new combinations of parts, hereinafter fully set forth, and then definitely pointed out in the claims.

In the accompanying drawings, Figure 1 is a front elevation of a press embodying my invention. Fig. 2 is a vertical section of one of the press-boxes, the steam mechanism being in elevation. Fig. 3 is a plan view. Fig. 4 is a detail section of the steam-cylinder and its connections. Fig. 5 is a detail perspective of one of the weights for raising the follower.

In the said drawings, the reference-numeral 1 denotes a duplex press-box, the two members thereof being mounted upon a central support, 2, in any ordinary or suitable manner, whereby they are capable of turning to bring either one beneath the follower. Upon strong supporting-timbers 3, arranged upon one side of the central support, 2, is mounted a cylinder, 4, of suitable length, and containing a piston, 5, operating a piston-rod, 6, to which is attached the follower 7. Steam is admitted above the piston by means of a pipe, 8, in which is placed a valve-casing, 9, having a three-way valve, 10. An exhaust-pipe, 12, communicates with the valve-casing, and by means of the valve 10 steam can be thrown in above the piston or exhausted through the pipe 12. The water of condensation which flows down in the cylinder is carried off by an escape-pipe, 13, which for convenience may discharge into the central standard, 2, made tubular for this purpose. Upon each side of the cylinder I place guideways 14, upon which weights 15 are adapted to move vertically, these weights being connected by cords 16 to the follower, and passing over friction-pulleys 17, the gravity of such weights being sufficient to raise the follower when steam is exhausted from the upper end of the cylinder.

The press-boxes are arranged in proper position to be used in connection with a gin and condenser, the latter being shown in the drawings at 18. The condenser-frame is provided



with a chute, 18<sup>a</sup>, to direct the cotton into the press-box when the latter is swung around into proper position. When receiving cotton from the condenser, the follower is raised, as shown in dotted lines in Fig. 2. This follower is in the form of a rectangular box divided by a cut formed diagonally from end to end, the piston being attached to the intact end 19 thereof, leaving the triangular sides 19<sup>a</sup> to sustain the back or bottom which stands adjacent to the condenser and holds back the lint delivered from the latter to prevent it from falling in upon the follower when the latter is down.

It will be obvious that after the cotton in one press-box is packed, such press-box can be swung out of the path of the follower and another one be brought into position to receive cotton to be packed.

By this invention I am able to furnish a packing apparatus of simple construction, having few parts and comparatively inexpensive. Moreover, by the adaptation of said invention to a duplex press-box, much time is saved, since even when the press is not employed the attendants can remove the packed cotton from one box while the other box is filling, thus avoiding any material interruption to the work.

By my invention I avoid the necessity of sending men into the press-box to tramp the lint, and thus prevent the serious injury to the health of employes which has always rendered this labor costly and difficult to obtain.

What I claim is—

1. A mechanical cotton-packer combining in its structure a central pivotal support, a pair of press-boxes rotating about the support, the timbers extending from the upper part of the support, guideways, and a cylinder mounted in upright position on the timbers, a valved fluid-inlet pipe connected with the upper end of the cylinder, a piston-rod having at the lower end a follower to enter the

press-box and at the upper end a piston working in the cylinder, and gravitating weights guided by the guideways and flexibly connected to the follower, substantially as described.

2. A mechanical cotton-packer combining in its structure an upright press-box, a vertical cylinder arranged above the press-box and having a valved pipe for the admission of the working fluid, a cotton-condenser having a feeding-trough located above the press-box to feed the cotton therein, a piston-rod having at its upper end a piston working in the cylinder and at its lower end a follower adapted to enter the press-box and provided with an upwardly-projecting shield which extends above the cylinder and holds the cotton back in the chute after the piston and follower have descended, and gravitating weights connected with the follower, substantially as described.

3. A mechanical cotton-packer combining in its structure a press-box, a cotton-feeding chute located above the press-box for delivering the cotton therein, a cylinder arranged above the press-box, a valved pipe connected with the upper end of the cylinder for the entrance of the working fluid, a piston-rod having at its upper end a piston working in the cylinder and acted upon at one side only by the fluid, a follower on the lower end of the piston-rod adapted to enter the press and forming an upwardly-projecting shield which extends above the cylinder and holds the cotton back in the chute when the follower has descended, a gravitating weight, and a flexible connection passing over a guide and connecting the weight with the follower, substantially as described.

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

R. S. MUNGER.

Witnesses:

H. H. HOWARD,  
W. H. CLARKE.