No. 725,535. PATENTED APR. 14, 1903.

J. B. BASTIAN & J. H. SUSSMAN.

CRUPPER STUFFER.

APPLICATION FILED SEPT. 12, 1901.

NO MODEL. 2 SHEETS—SHEET 1.

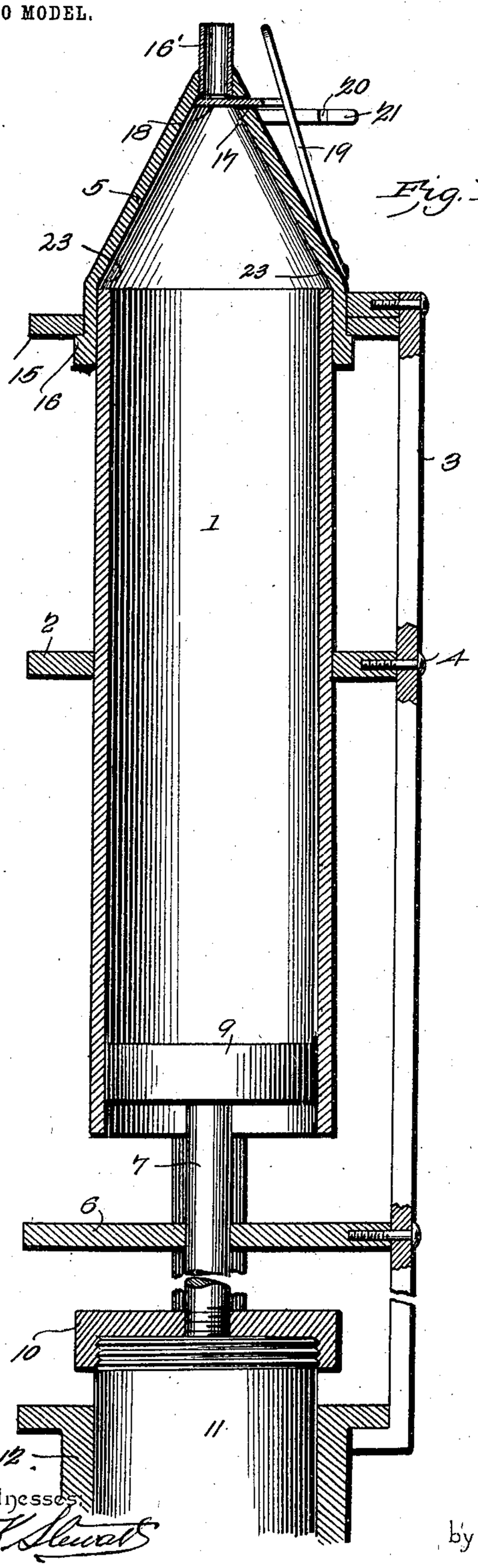

Fig. 1.

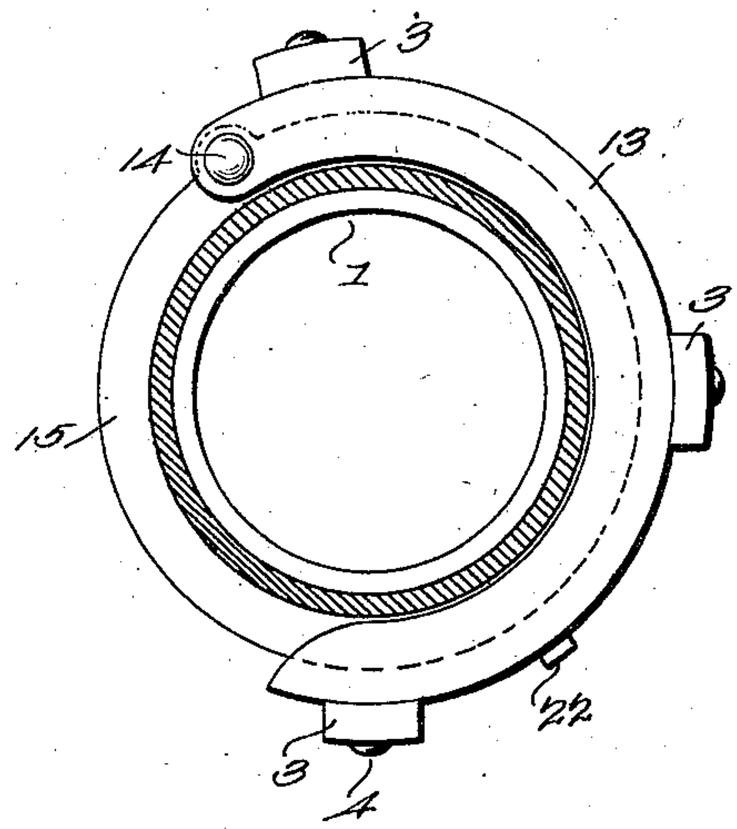

Fig. 3.

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NO MODEL. 2 SHEETS—SHEET 2.

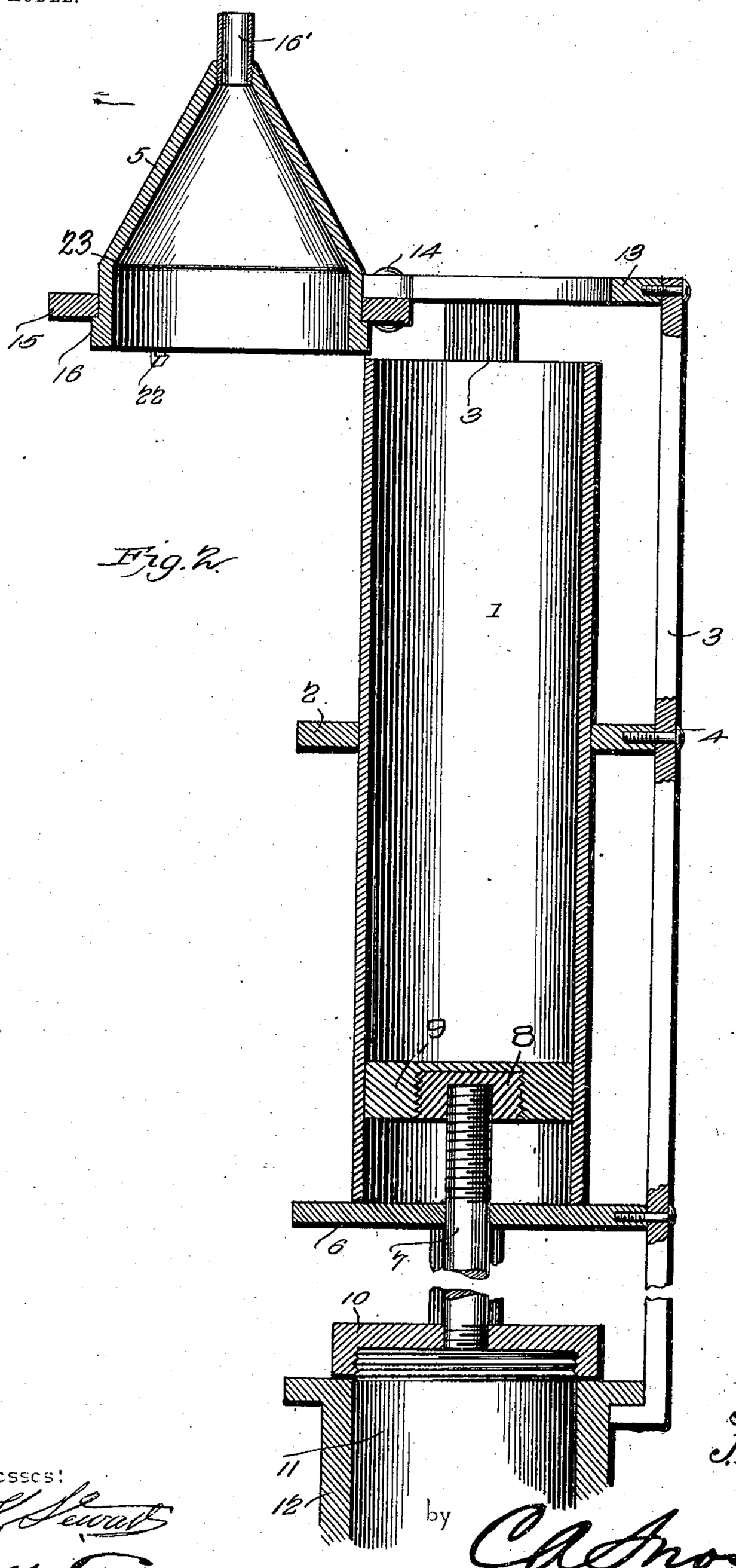

Fig. 2.

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UNITED STATES PATENT OFFICE.

JOHN BARBER BASTIAN AND JOHN HARRY SUSSMAN, OF CHARLESTOWN, INDIANA.

CRUPPER-STUFFER.

SPECIFICATION forming part of Letters Patent No. 725,535, dated April 14, 1903.

Application filed September 12, 1901. Serial No. 75,208. (No model.)

To all whom it may concern:

Be it known that we, JOHN BARBER BASTIAN and JOHN HARRY SUSSMAN, citizens of the United States, residing at Charlestown, in the county of Clark and State of Indiana, have invented a new and useful Crupper-Stuffer, of which the following is a specification.

This invention relates to crupper-stuffers.

The object is to provide a machine which shall combine great simplicity of construction with high efficiency and durability in use and that may be operated by an unskilled workman to effect thorough and rapid stuffing of cruppers.

With these and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of a crupper-stuffer, as will be hereinafter described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like numerals of reference indicate corresponding parts, there is illustrated a form of embodiment of the invention capable of carrying the same into practical operation, it being understood that the elements therein exhibited may be varied or changed as to shape, proportion, and exact manner of assemblage without departing from the scope of the invention, and in the drawings—

Figure 1 is a view in sectional elevation, showing the position occupied by the parts when ready for operation. Fig. 2 is a similar view showing the position of the parts when the cylinder to contain the stuffing material is to be filled. Fig. 3 is a view in top plan, partly in section.

Referring to the drawings, 1 designates a cylinder to contain the material employed for stuffing the cruppers. This cylinder is mounted for limited vertical movement within a guide 2, secured to three uprights 3, as by bolts or screws 4. The guide is an annulus, and its central orifice is of a size to permit the cylinder to be freely moved therein for a purpose that will presently appear. In this instance there are but three of the uprights 3 shown, this number being adopted in order to permit lateral swinging movement of the nozzle 5, as clearly shown in Fig. 2; but it is to be understood that if found necessary additional uprights may be employed, and as this will be obvious detailed illustration is deemed unnecessary. Secured near the lower ends of the standard is a plate 6, upon which the cylinder 1 rests, the plate being provided with a central opening, in which works a piston-rod 7, that portion of the rod projected within the cylinder being threaded and carrying a threaded disk 8, upon which is screwed a piston 9, the lower end of the piston being connected with the cap-plate 10 of the plunger 11 of a hydraulic pump 12, the form of pump herein shown being merely diagrammatic, as any other preferred construction may be employed and still be within the scope of the invention. As the piston-rod is guided by the plate 6 and is held in vertical position thereby, the lower portion of the cylinder will be properly held in position with relation to the guide 2, thereby to permit the same to be moved back and forth through a limited stroke to move the same into and out of engagement with the nozzle 5 to lock the same against turning or to permit the same being swung laterally, as shown in Fig. 2.

Secured to the upper extremities of the uprights is a semicircular plate 13, constituting a stop to limit lateral movement inward of the nozzle to bring the same into alinement with the cylinder 1, and pivoted to the stop by a bolt or rivet 14 is an annulus 15, through which projects the nozzle 5, the same being provided with a shoulder 16 to limit inward insertion therein. The nozzle is provided with a mouthpiece 16′, which may be integral with the nozzle or separable therefrom, and is of a size to permit ready insertion within the crupper-strap. Arranged below the mouthpiece 16′ and on one side of the nozzle is a transverse orifice 17, which is engaged by a plate 18, constituting a cut-off, the cut-off being secured to a spring-arm 19, firmly attached to the nozzle and movable into and out of engagement with a notch 20, formed in a projection 21, also carried by the nozzle. The spring is flexed to cause the cut-off normally to close the escape to the mouthpiece and is held out of engagement therewith by bring-

ing the arm 19 into engagement with the notch 20.

When the cylinder is to be filled with the material for stuffing the cruppers, the nozzle 5 is swung laterally to the position shown in Fig. 2, prior to which, however, the cylinder is pushed down upon the plate 6, as shown in Fig. 2, thereby to remove it from engagement with the nozzle, the under face of the piston when the cylinder is in this position being projected therein a distance equal to the upward movement that is imparted to it to bring it into engagement with the nozzle, so that the lower end of the cylinder will always be closed to prevent escape of the stuffing material. In other words, the plunger 11 never moves downward a sufficient distance to cause the piston to leave the cylinder. The cylinder is now filled with the stuffing material, and the nozzle is swung inward and is locked in position by a catch or latch 22, carried by the stop 13, which interlocks with the annulus or head-plate 15. The cylinder is now pushed upward to cause the upper end thereof to enter the lower portion of the nozzle, inward insertion being limited by an angular shoulder 23, formed by the juncture of the lower straight portion of the nozzle with the tapered upper portion. A crupper is now inserted over the mouthpiece 16′ and the pump is started, being operated either by hand or by power, and the piston by moving upward within the cylinder forces a portion of its contents into the crupper, it being understood that the cut-off is open. As soon as the crupper is filled the cut-off is closed and the pump stopped and an empty crupper-strap is associated with the mouthpiece, these operations being repeated until the cylinder is emptied of its contents, whereupon the parts of the apparatus are brought to the position shown in Fig. 2 and the filling of the cylinder again accomplished in the manner described, it being understood that as the piston is drawn down for the purpose of permitting refilling of the cylinder the latter is drawn backward by the piston against the plate 6, or, if preferred, the cylinder may first be pushed back against the plate by hand, after which the piston may be retracted.

It will be seen from the foregoing description that while the device of this invention is of exceedingly simple construction it possesses all the elements necessary to the production of a thoroughly-efficient apparatus, and owing to the small number of parts employed in its construction danger of disarrangement or breakage in use is reduced to a minimum.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A crupper-stuffing machine, comprising a longitudinally-movable cylinder, a supporting-frame therefor provided with means spaced from one end of said cylinder to limit its movement in one direction, a movable nozzle for engaging the other end of said cylinder and limiting its movement in the other direction, and a piston coacting with the cylinder.

2. A crupper-stuffing machine, comprising a supporting-frame, a cylinder loosely mounted in said frame to slide longitudinally when in operative position, a laterally-movable nozzle mounted on said frame for detachable engagement with one end of said cylinder, and a piston in the cylinder which on its forward stroke holds said cylinder in engagement with said nozzle and on its backward stroke withdraws it from engagement therewith.

3. A crupper-stuffing machine, comprising a longitudinally-movable cylinder, a supporting-frame therefor provided with means spaced from the ends of the cylinder for limiting its movement in opposite directions, and a piston coacting with the cylinder.

4. In a crupper-stuffing machine, a frame supporting a guide, a cylinder mounted in the guide, a plate supported by the frame upon which the cylinder is adapted to rest, a stop-plate carried by the upper portion of the frame, a nozzle having a swinging connection with the stop-plate, a piston within the cylinder, and actuating mechanism connected with the piston.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

JOHN BARBER BASTIAN.
JOHN HARRY SUSSMAN.

Witnesses:
FRANCIS GILBERT FLORA,
E. E. HANLIN.