

(No Model.)

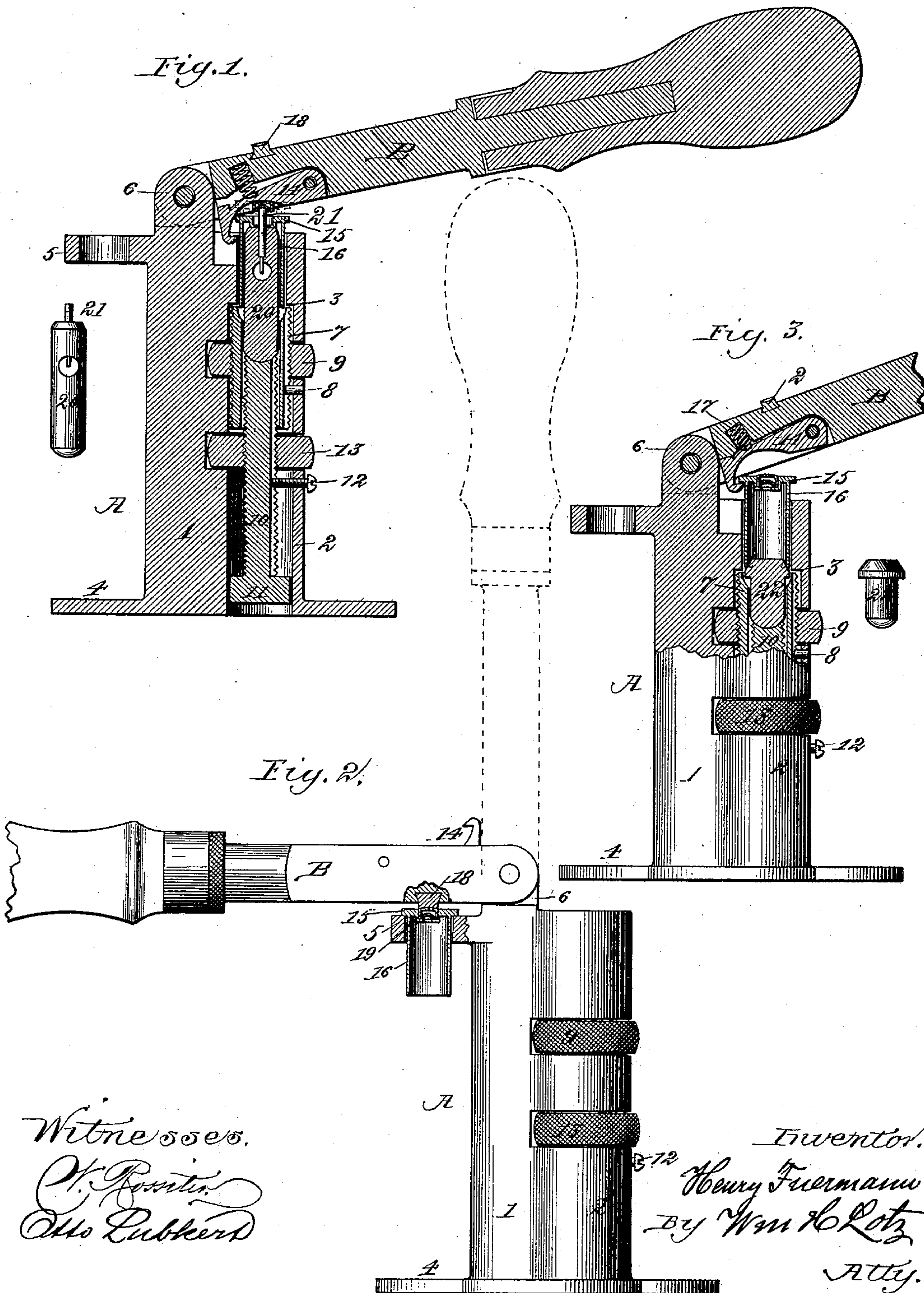
2 Sheets—Sheet 1.

H. FUERMANN.

CARTRIDGE RELOADING IMPLEMENT.

No. 397,421.

Patented Feb. 5, 1889.



(No Model.)

2 Sheets—Sheet 2.

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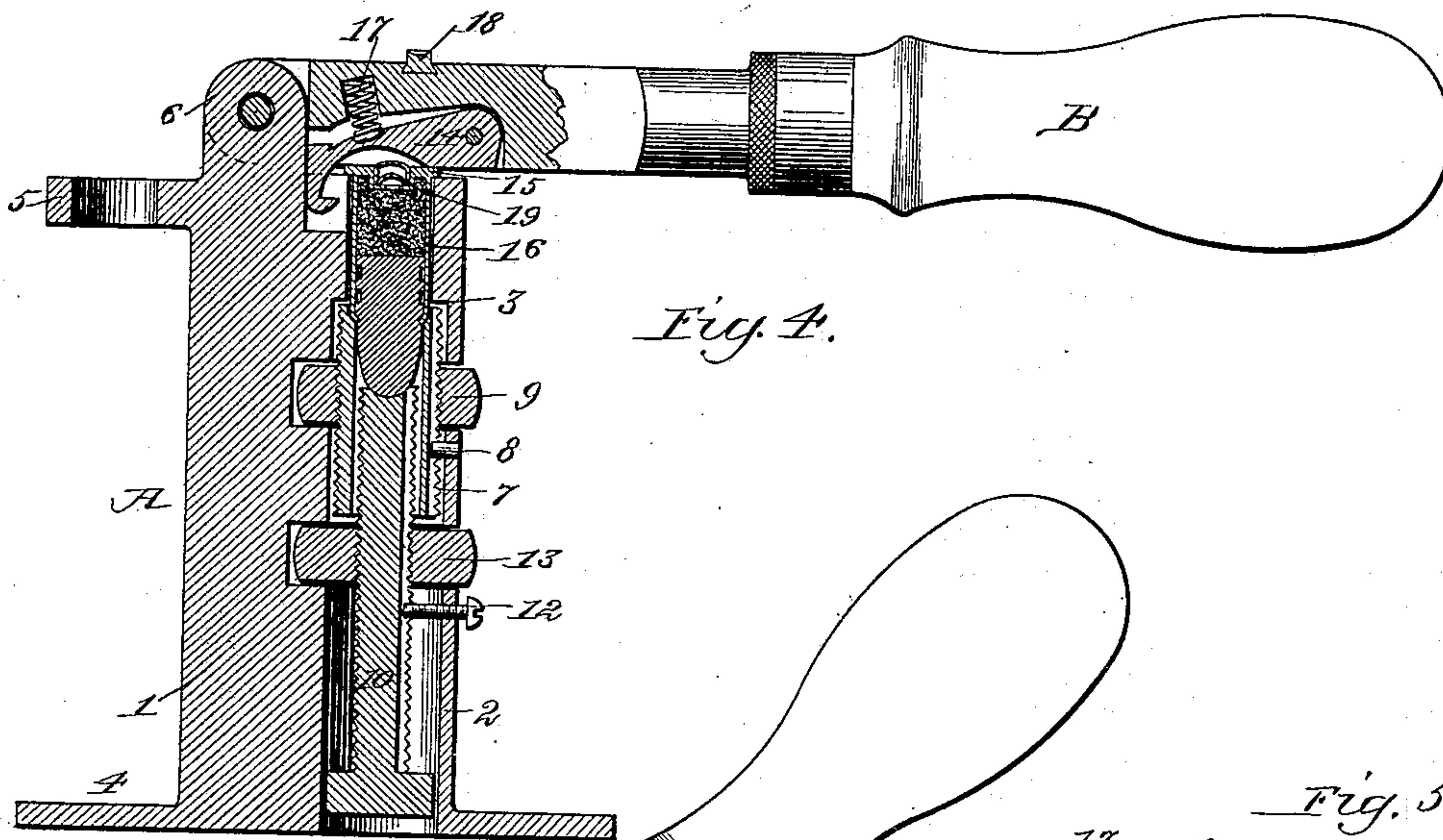


Fig. 4.

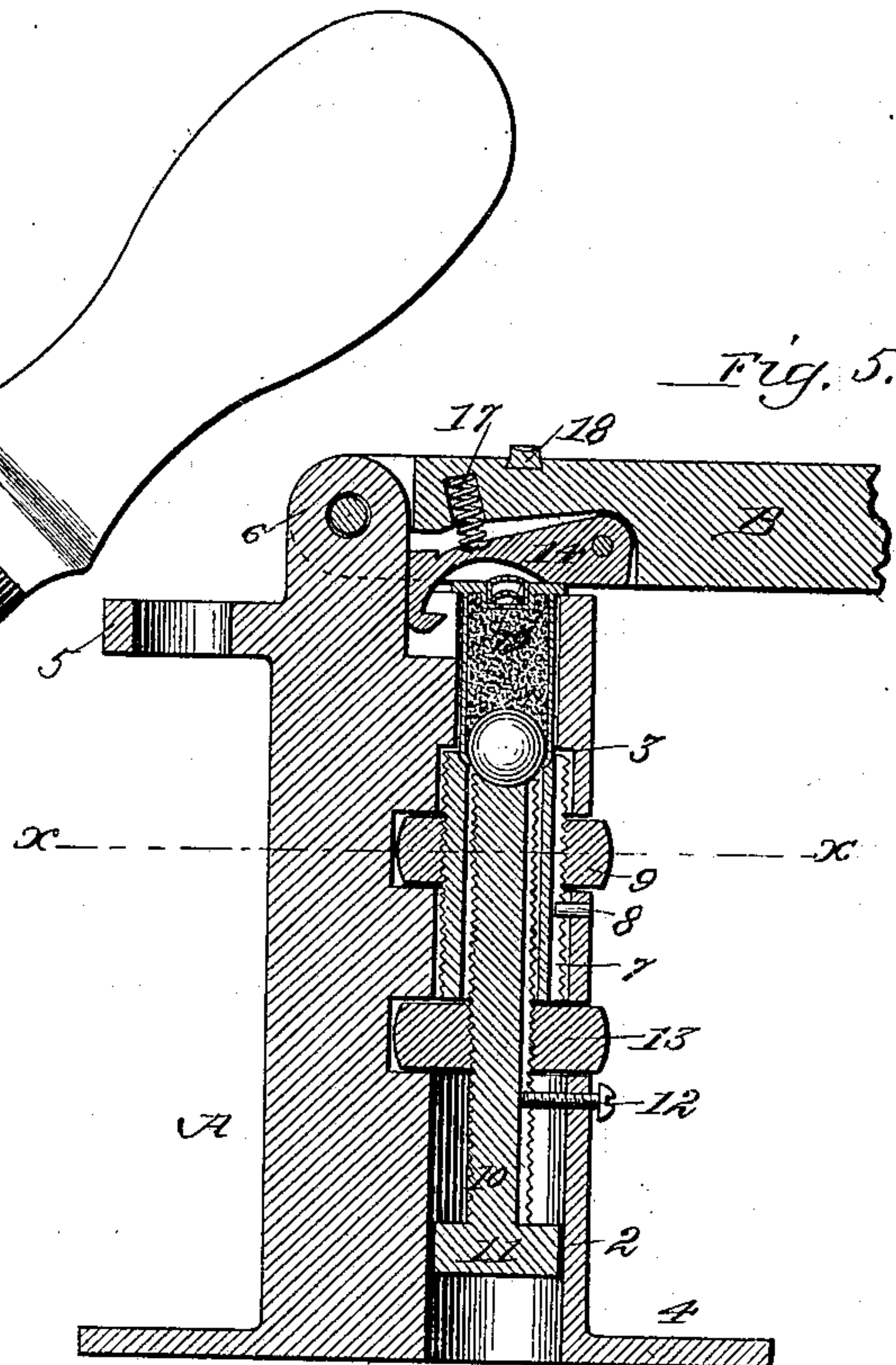


Fig. 5.

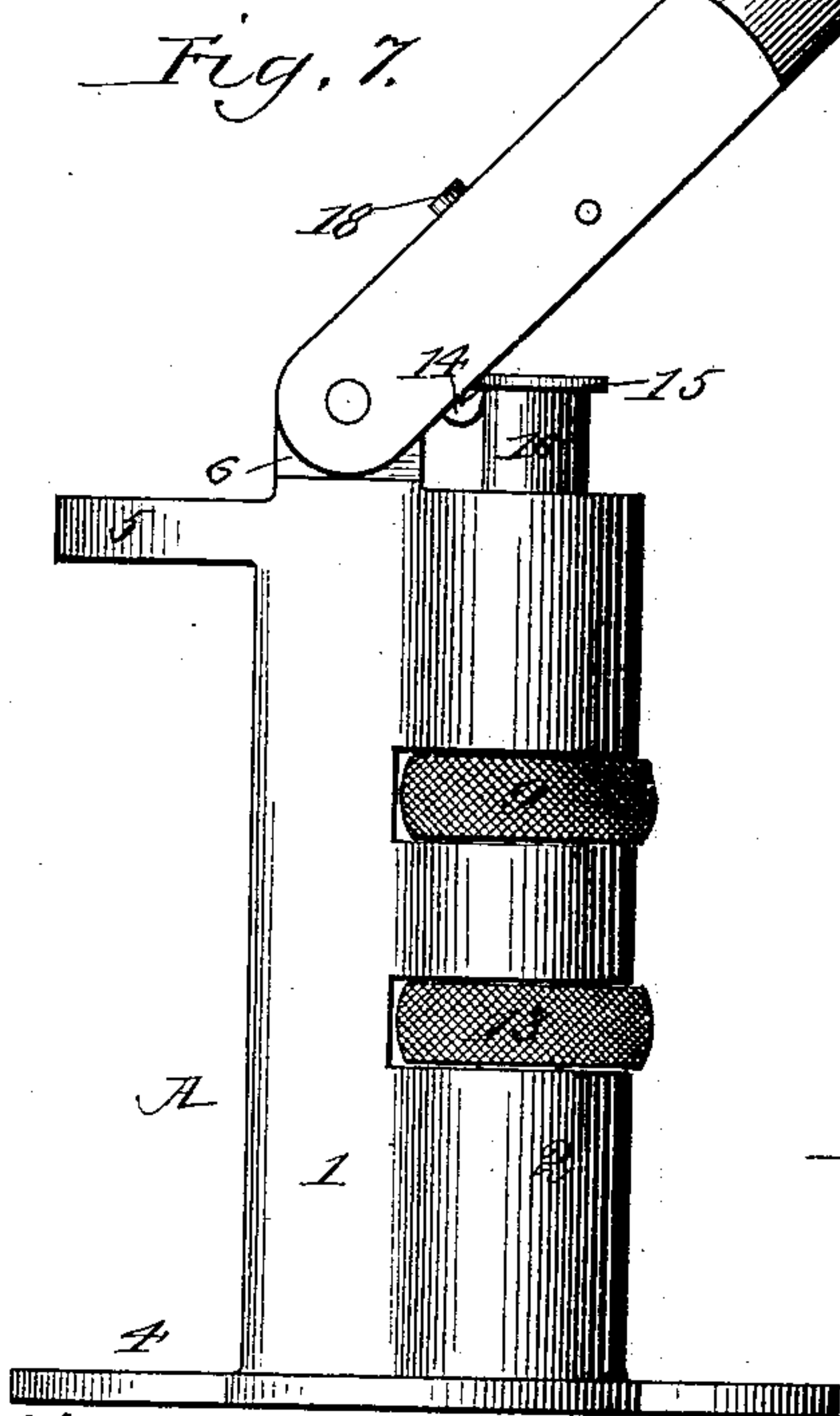


Fig. 7.

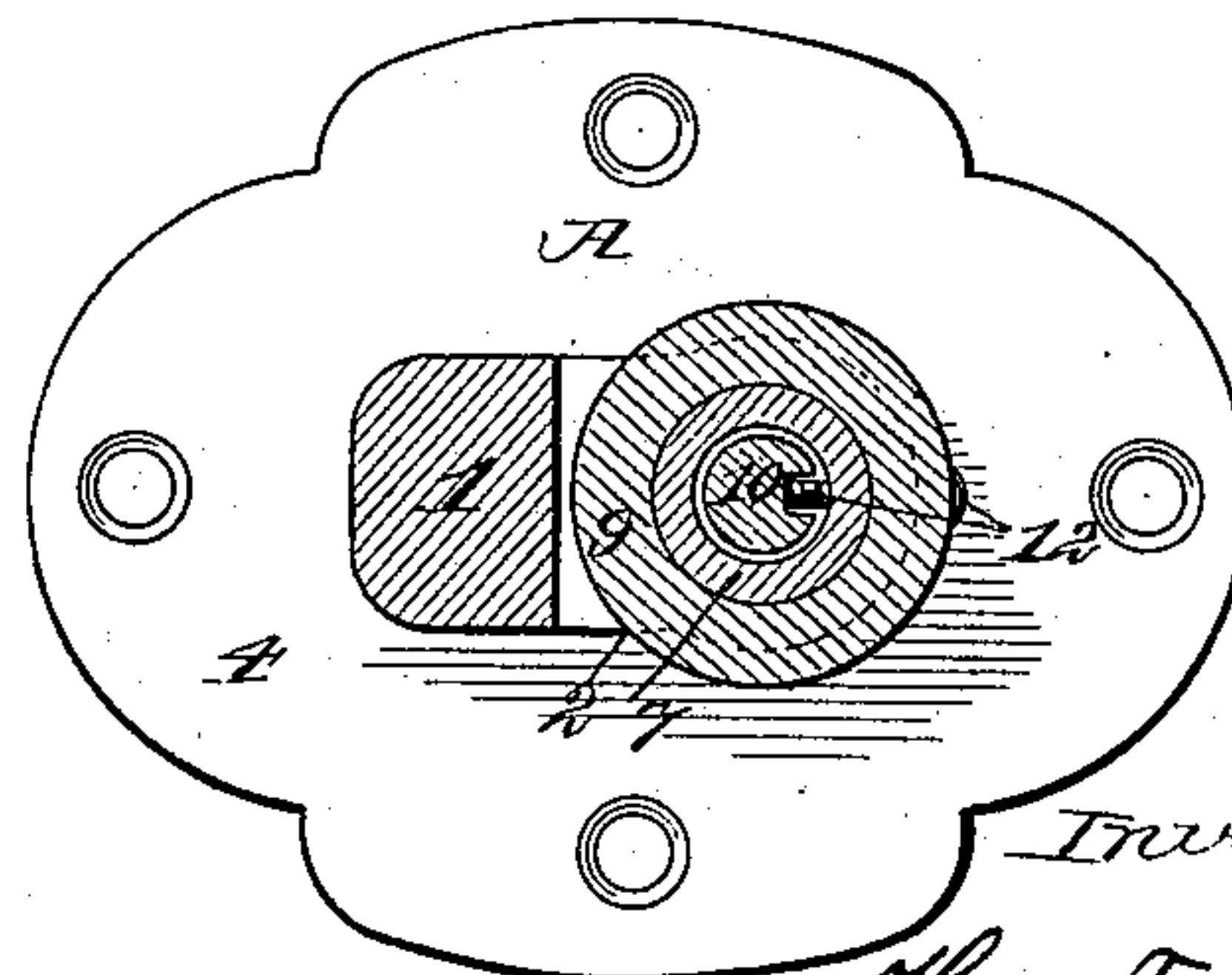


Fig. 6.

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UNITED STATES PATENT OFFICE.

HENRY FUERMANN, OF CHICAGO, ILLINOIS.

CARTRIDGE-RELOADING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 397,421, dated February 5, 1889.

Application filed November 13, 1888. Serial No. 290,742. (No model.)

To all whom it may concern:

Be it known that I, HENRY FUERMANN, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Cartridge-Reloading Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to machines or implements for accomplishing all the several manipulations for reloading cartridges with either conical or spherical bullets; and it has for its object to provide such a machine or
15 implement that in a compact form can be readily adjusted for any one of the operations to be performed, and which has but a single operating-lever; and with these objects in view my invention consists of the novel
20 devices and combinations of devices herein-after described and specifically claimed.

In the accompanying drawings, Figure 1 represent a vertical section of the machine as prepared for removing the exploded cap; Fig.
25 2, a similar section of the machine while seating a new cap; Fig. 3, a similar section of same as adjusted for expanding the mouth of the cartridge-shell; Fig. 4, a similar section as compressing the reloaded cartridge and
30 contracting the shell upon the conical bullet; Fig. 5, a similar section as compressing the reloaded cartridge and contracting the shell upon the spherical bullet. Fig. 6 is a sectional plan on line $x x$ in Fig. 5, and Fig. 7 is
35 an elevation of the machine as extracting the cartridge after reloading.

Corresponding referential characters in the several figures of the drawings designate like parts.

40 The frame A of this machine consists of a standard, 1, which to one side has connected a vertical tube, 2, bored larger from the bottom to the shoulder 3, and bored just sufficiently large in its upper portion for a cartridge-shell to be inserted therein. This frame
45 has a base-flange, 4, provided with counter-sunk holes for securing the same by wood-screws upon a bench or table. It also has a flange, 5, on the side opposite to the tube 2,
50 having bored therein a hole of same diameter as the upper end of such tube 2. Centrally

between the bore of tube 2 and flange 5 the frame is provided with a vertically-projecting eye-lug, 6, forming a hinge with the slotted and eyed end of a lever, B, to swing
55 in either direction, and thus to operate in connection with either the tube 2 or flange 5.

Into the larger bore of the tube 2 is fitted to slide vertically therein a tube, 7, which is exteriorly screw-threaded and has a longitudinal groove engaging with the point of a
60 pin or screw, 8, tapped through the wall of the tube 2, for keeping such tube 7 from turning. A nut, 9, engaging the screw-threads of the tube 7 is inserted into a horizontal slot
65 cut through the tubular portion 2 of the frame A for vertically adjusting such tube 7 by turning such nut in one direction or the other. The upper end of the tube 7 is interiorly chamfered or reamed out to have a flaring opening.
70

A screw-threaded stem, 10, of a diameter snugly to pass through the tube 7, has a head, 11, fitting the bore of the lower portion of the tube 2 of the frame A. This screw-threaded
75 stem 10 is also longitudinally grooved to engage the point of a screw, 12, tapped through the wall of the tube 2 of the frame A to keep the said stem from turning, and a nut, 13, engaging the screw-threads of the stem 10, is inserted into a slot cut through the tubular portion
80 2 of the frame A a distance below the slot for the nut 9. The rims of both nuts 9 and 13 project outside of the tube 2 of the frame A, and are serrated for turning them with the fingers. The stem 10 is concaved on
85 top to provide a seat for either a conical or spherical bullet.

The lever B is chambered at one side for a hook, 14, the fulcrum of which is toward the handle of the lever B, while its outwardly-
90 curved hook end is toward the hinge-connection of such lever B to catch under the projecting flange 15 of the head of a cartridge-shell, 16. This hook 14 is pushed outward by a small spiral spring, 17, inserted into a socket
95 behind such hook, and its outward movement is limited by the heel of its pivot-hub. The side of the lever B opposite to where the hook 14 is attached has secured into a socket a round concaved die, 18, which by swinging
100 the lever upon flange 5 will be moved centrally above the eye therein, and is used for

seating and securing the percussion-primer 19 into the central cavity in the head of cartridge-shell 16, as shown by Fig. 2.

For removing an exploded primer from a
5 cartridge-shell a cylindrical plug, 20, of a diameter to enter the cartridge-shell 16, and having a projecting pin, 21, is inserted into the tubular portion 2 of the frame A to rest upon the screw-stem 10, which is to be so adjusted
10 that only the pin 21 projects above tube 2. A cartridge-shell being placed upon this plug 20 and then the lever B being swung upon it, the pin 21 will push the primer out and into the cavity of the hook 14 and permit it to
15 drop out on lifting the lever B, the hook 14 of which at the same time raises the cartridge-shell out of the tube. For expanding the end of the cartridge-shell 16 to admit the bullet a plug, 22, is seated into the tube 2 to rest
20 upon screw-stem 10. This plug 22 has a conical head which enters the mouth of the cartridge-shell, and on pushing such shell downward by lever B its end will be expanded to the desired degree to which it can be adjusted.
25 By arranging the plug 20 with a conical collar at proper distance the operation of removing the cap and of expanding the shell of the cartridge may be accomplished simultaneously with one operation.
30 The operation for reloading cartridges is, first, to remove the old primers in the manner shown by Fig. 1; secondly, to expand the mouth of the shell, as shown by Fig. 3; third, to insert a new primer, as shown by Fig. 2,
35 and then, after recharging the cartridge-shell with powder and inserting the bullet, the cartridge is properly compressed and the mouth-edge of the shell is contracted upon the bullet by being pushed into the flaring upper
40 end of the tube 7, as shown by Figs. 4 and 5. After each operation performed upon the shell or cartridge, excepting the one of inserting the cap, the hook 14, automatically engaging the flange 15, will extract the shell
45 or cartridge on raising the lever B again.

What I claim is—

1. A cartridge-reloading machine consisting of a standard tubular frame bored for a bullet-supporting stem and for a cartridge-shell-contracting tube surrounding the sup-
50 porting-stem, both vertically adjustable in-

side of such standard tube by separate screw-nuts, in combination with a lever pivoted to such standard frame and provided with a cartridge-extracting hook, all substantially as
55 described, to operate as specified.

2. A cartridge-reloading machine consisting of a standard tubular frame bored for a bullet-supporting stem and for a cartridge-shell-contracting tube surrounding the sup-
60 porting-stem, and of an eyed flange to one side of such standard frame to hold a cartridge-shell for seating the primer, in combination with a lever pivotally connected with the standard frame centrally between the
65 tube and eye flange thereof, and provided at one side with a cartridge-extracting hook and on its other side with a concaved die for seating the primer, all substantially as set forth, to operate as specified.
70

3. A cartridge-reloading machine consisting of a standard tubular frame bored for a bullet-supporting stem and for a cartridge-shell-contracting tube surrounding the sup-
75 porting-stem, both vertically adjustable in the tubular frame by separate screw-nuts, and of a lever pivoted to such standard frame and provided with a cartridge-extracting hook, in combination with a plug to be seated in such tube to rest upon such bullet-support-
80 ing stem and entering the cartridge-shell and provided with a projecting pin for displacing the exploded primer, all substantially as described, to operate as specified.

4. A cartridge-reloading machine consist-
85 ing of a standard tubular frame bored for a bullet-supporting stem, vertically adjustable in the tubular frame by a screw-nut, and of a lever pivoted to such standard frame and provided with a cartridge-extracting hook, in
90 combination with a conical plug to be seated in such standard tube upon such bullet-supporting stem for expanding the cartridge-shell previously to reloading the same, all substantially as set forth, to operate as speci-
95 fied.

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

HENRY FUERMANN.

Witnesses:

WILLIAM H. LOTZ,
OTTO LUBKERT.