(No Model.)

2 Sheets—Sheet 1.

W. C. STEWART.

BULLET GREASING MACHINE.

No. 476,175. Patented May 31, 1892.

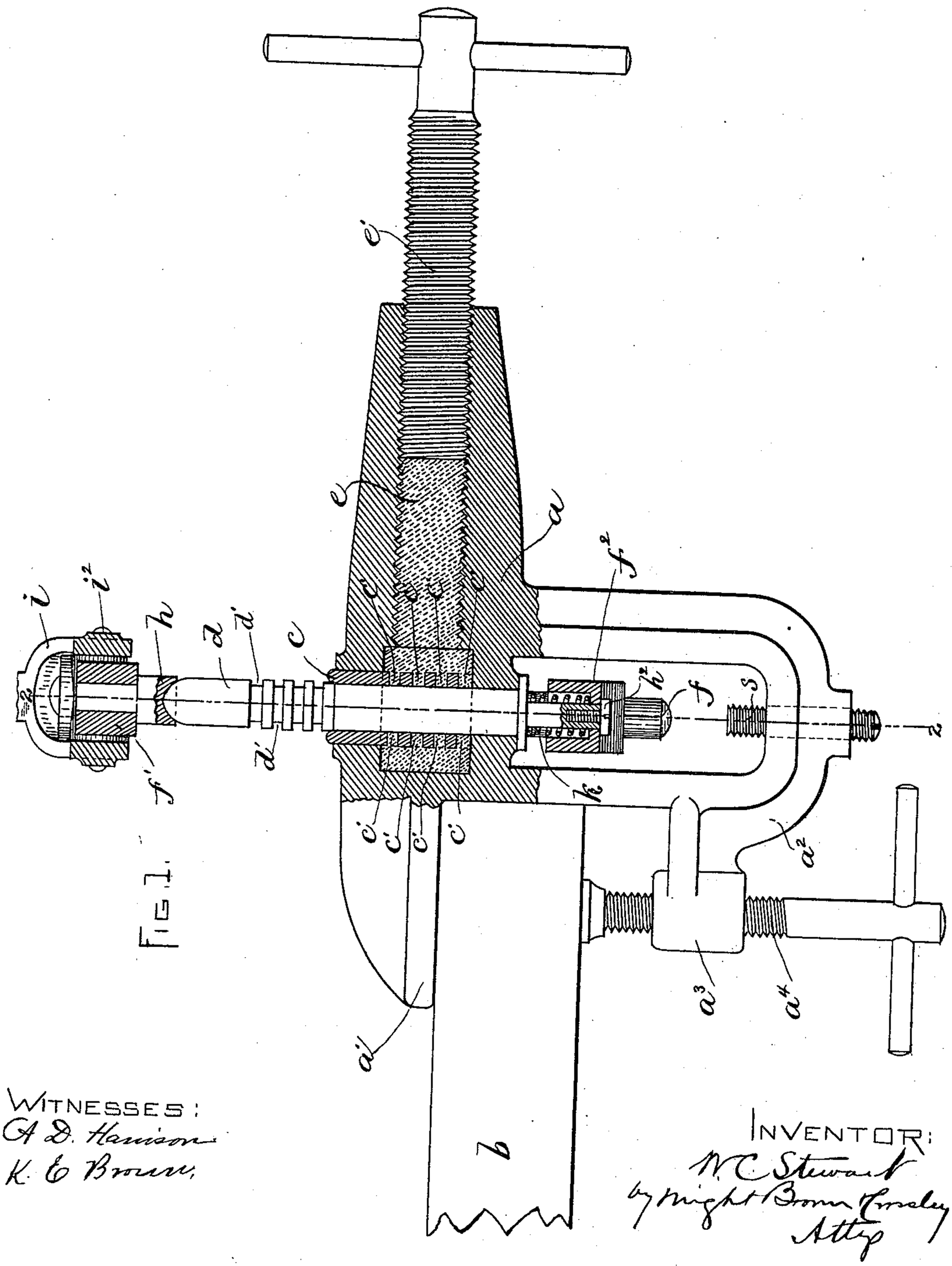

FIG. 1.

WITNESSES:
A. D. Harrison
K. E. Brown.

INVENTOR:
W. C. Stewart
by Wright Brown Quinby & Atty

(No Model.) 2 Sheets—Sheet 2.

W. C. STEWART.

BULLET GREASING MACHINE.

No. 476,175. Patented May 31, 1892.

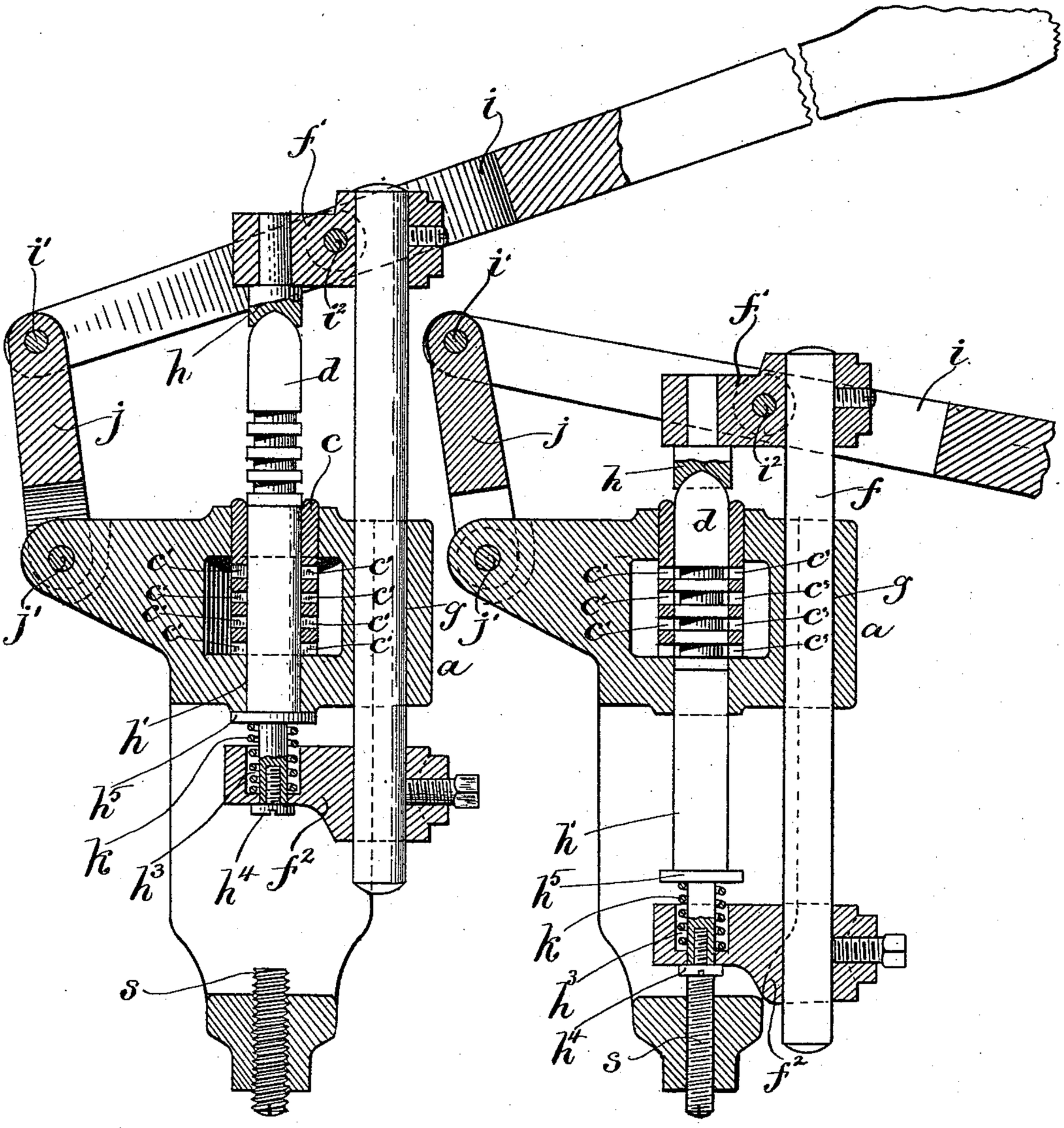

FIG. 2.

FIG. 3.

WITNESSES:
A. D. Harmon.
K. E. Brown.

INVENTOR:
W. C. Stewart
by Wright Brown Quinby & Atty

UNITED STATES PATENT OFFICE.

WILLIAM C. STEWART, OF LYNN, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO J. HAMMOND STEWART, OF SAME PLACE.

BULLET-GREASING MACHINE.

SPECIFICATION forming part of Letters Patent No. 476,175, dated May 31, 1892.

Application filed June 6, 1891. Serial No. 395,336. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. STEWART, of Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Bullet-Greasing Machines, of which the following is a specification.

This invention has for its object to provide a simple and convenient device for charging the grooves of rifle-bullets with grease without smearing the body of a bullet between the grooved portion and the conical end or point with the grease and also without smearing the base or larger end of the bullet.

The invention consists in a bullet-greasing device comprising a body or stock having a bullet-receiving socket formed to closely fit the periphery of a bullet and provided with a number of holes coinciding with the grooves in a bullet inserted in the socket and with a grease-chamber communicating with said holes; two plungers or pressers, one located above and the other below the position occupied by the bullet, the upper or top presser being arranged to bear on the upper end of the bullet, while the other or bottom presser bears at the same time on the lower end of the bullet; a connection between said pressers, whereby they are caused to move in unison, so that when they are depressed the top presser forces the bullet down into the socket and the bottom presser retreats before the bullet, and when they are raised the bottom presser ejects the bullet from the socket, the top presser rising with the bullet, and a lever pivotally connected with the stock or body and to the device that connects the top and bottom pressers, said lever enabling the operator to depress and raise said pressers, all of which I will now proceed to describe.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a side elevation and partial longitudinal section of my improved bullet-greasing machine. Fig. 2 represents a section on line 2 2, Fig. 1. Fig. 3 represents a similar section showing the bullet inserted in the socket.

The same letters of reference indicate the same parts in all the figures.

In the drawings, *a* represents the stock or body, which is adapted to be secured to a table *b* or other suitable support, the means here shown for securing the stock being an ear or flange *a'*, formed on the upper portion of the stock and arranged to bear on the upper surface of the table, an arm or bracket a^2, formed on the lower portion of the stock and having a screw-threaded socket a^3, and a screw a^4, working in said socket and arranged to bear on the under side of the table *b*.

c represents the bullet-socket, which is inserted in a recess formed for it in the stock *a*, and is formed to receive and fit closely upon the periphery of a rifle-bullet *d*. Said socket is provided with a series of holes *c'*, which coincide with the grooves *d'* of the bullet when the latter is inserted in the socket, as shown in Fig. 3.

e represents a grease chamber or cavity formed in the stock *a*, said chamber surrounding the socket *c* and communicating with the orifices *c'*.

e' represents a follower or grease-presser in the chamber *e*. Said follower is here shown as a screw-threaded rod or bolt engaged with an internal screw-thread formed in said chamber, so that when the follower is turned in one direction it will exert pressure on the charge of grease in the chamber and force the same through the orifices *c'* into the grooves *d'* of the bullet.

f represents a vertical rod adapted to slide in a guide or socket *g* in the stock or body *a*. To the upper end of said rod is affixed an arm *f'*, to which is secured the top presser or plunger *h*, the latter being arranged to bear on the upper end of the bullet *d*. To the lower portion of the rod *f* is secured an arm f^2, which is below the stock *a* and supports the bottom presser or plunger *h'*, the latter being formed to fit and slide vertically in the bullet-socket *c*.

i represents a lever, which is pivoted at *i'* to a link *j*, which in turn is pivoted at *j'* to an ear on the stock or body *a*. Said lever is pivoted at i^2 to the arm *f'*, and when its outer end is lowered and raised by the operator the rod *f* and pressers *h* and *h'* connected thereto are depressed and raised.

When the lever *i* and the pressers *h* and *h'*

are raised, as shown in Figs. 1 and 2, the top of the presser h' is near the upper end of the socket c, so that the lower end of a bullet d can be placed upon it. I prefer to give the presser or plunger h' a downward yielding movement by means of a spring k, which is interposed between the lower end of said presser h' and the bottom of the socket formed in the arm f^2, the presser h' having a stem h^3, which passes through and is adapted to slide in the arm f^2, and has a head h^4 formed to bear on the under side of said arm. The lower end of the presser h' has in this case a flange h^5, which bears against the under side of the stock or body a and limits the upward movement of the presser h'.

It will be seen that the described yielding connection between the presser h' and the arm f^2 enables the arms f' f^2, rod f, and top presser h to be raised independently of the bottom presser h', so as to permit the insertion of the bullet in the position shown in Figs. 1 and 2, the top presser h being forced down upon the point of the bullet by the spring k when the bullet is in place. The bullet being engaged, as described, with the pressers h h', the lever i is depressed, thus causing the top presser h to force the bullet into the socket c, the bottom presser yielding and retreating before the bullet. When the downward limit of the movement of the bullet is reached, its grooves d' coincide with the orifices c' in the socket c, as shown in Fig. 3. When the bullet is in this position, the operator by moving the follower e forces sufficient quantities of grease through the orifices c' to charge the grooves d' in the bullet. The lever is then raised, thus causing the bottom presser h' to raise the bullet and eject it from the socket c, the spring k permitting the top presser h to be raised independently, as above described, to permit the easy removal of the bullet. It will be seen that the body of the bullet between the grooved portion and the point is not brought into contact with the grease, and therefore is left clean after the operation of charging the grooves, this result being due to the fact that the bullet is first depressed into the socket and then raised from it. It will also be seen that the bottom presser not only ejects the bullet, but serves when elevated as a valve to close the grease-orifices c', so that no grease can enter the socket until the bullet is in position to receive the grease in its grooves. Hence there is no liability of grease getting into the socket when there is no bullet in it, so that there will be no necessity of cleaning out the socket to prevent the greasing of the base and other parts of the bullet.

The bottom presser may be used as a means for ejecting the bullet and preventing the admission of grease into the socket, as described, without the top presser or in connection with any other suitable means for forcing the bullet into the socket. For example, the bullet may be pressed into the socket by the operator's fingers, the bottom presser yielding to the pressure, and being afterward forced upwardly by the operator's fingers to eject the bullet and cover the orifices c'.

The machine may be adapted for use in the manner last described by removing the lever i and rod f with its attachments.

I claim—

1. In a bullet-greasing device, the combination of a stock or body having a socket formed to receive and accurately fit a cylindrical grooved bullet and provided with orifices arranged to coincide with the grooves of a bullet inserted in said socket, a grease-chamber in said stock communicating with said orifices, a lever pivotally connected to said stock, an arm or head pivoted to the lever above the said socket, said arm having a top presser arranged to bear on the upper end of a bullet and force the latter into the socket when the lever is depressed, a bottom presser or plunger adapted to move in said socket and bear on the lower end of the bullet therein, and connections between said plunger and the lever, whereby the plunger is caused to descend and ascend with the top-presser, and thereby retreat before the bullet when the latter is entering the socket preparatory to being charged with grease and to eject the bullet from the socket after its grooves have been charged, as set forth.

2. The combination of the stock or body having the bullet-receiving socket, the latter being provided with orifices arranged to coincide with the grooves of a bullet, and the grease-chamber communicating with said orifices, said chamber having a grease-presser or follower, a rod fitted to slide in a guide in said stock, a top presser secured to the upper portion of said rod and arranged to force a bullet into the socket, a bottom presser or plunger secured to the lower portion of said rod and arranged to enter said socket, and means for depressing and raising said rod and the pressers connected therewith, as set forth.

3. The combination of the stock or body having the bullet-receiving socket, the latter being provided with orifices arranged to coincide with the grooves of a bullet, and the grease-chamber communicating with s
fices, said chamber having a grease-presser or follower, a rod fitted to slide in a guide in said stock, a top presser secured to the upper portion of said rod and arranged to force a bullet into the socket, a bottom presser or plunger fitted to move vertically in said socket, an arm secured to the bottom portion of said rod, and a yielding connection between the said arm and the bottom presser, whereby the pressers are adapted to be separated to permit the insertion and removal of a bullet, as set forth.

4. The combination of the stock or body having the bullet-receiving socket, the latter being provided with orifices arranged to coincide with the grooves of a bullet, and the grease-chamber communicating with said orifices, said chamber having a grease-presser or

follower and a presser or plunger formed to fit closely and play vertically in said socket as a means for ejecting the bullet therefrom and for closing said orifices when raised to eject the bullet, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 15th day of May, A. D. 1891.

WILLIAM C. STEWART. [L. S.]

Witnesses:
EDWARD WILLIAMS,
GEORGE W. HILL.