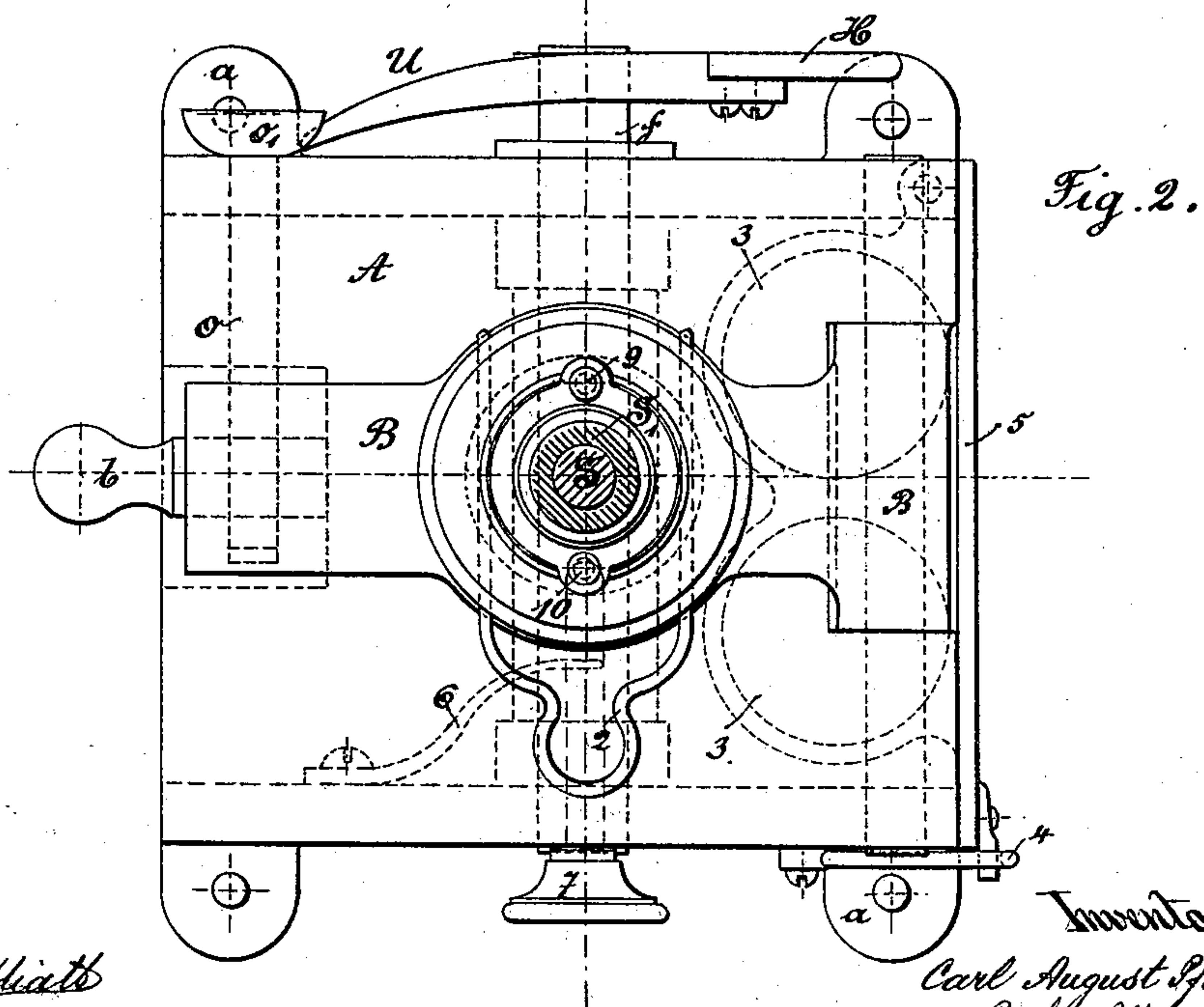
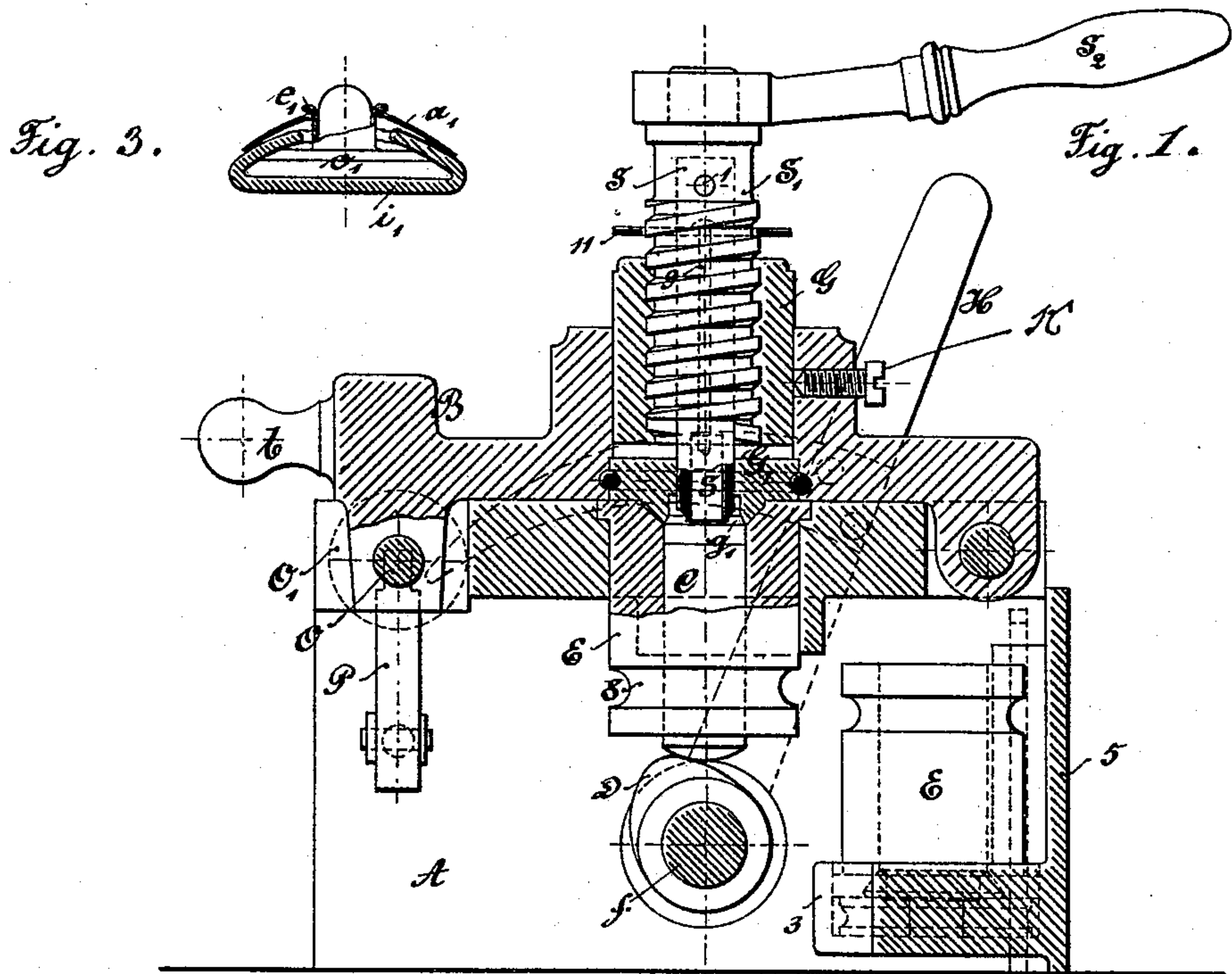


(No Model.)

C. A. PFENNING.
BUTTON MACHINE.

No. 396,426.

Patented Jan. 22, 1889.



Witnesses:

Geo. H. Miall
Ch. S. McArthur

Inventor:

Carl August Hennig.
By his Attorney,
Dickerson, Foster & Freeman.

UNITED STATES PATENT OFFICE.

CARL AUGUST PFENNING, OF BARMEN RITTERSHAUSEN, PRUSSIA, GERMANY.

BUTTON-MACHINE.

SPECIFICATION forming part of Letters Patent No. 396,426, dated January 22, 1889.

Application filed April 5, 1888. Serial No. 269,674. (No model.)

To all whom it may concern:

Be it known that I, CARL AUGUST PFENNING, a subject of the German Emperor, residing at Barmen Rittershausen, in Rhenish Prussia, Germany, have invented a new and useful Apparatus for the Manufacture of Buttons, of which the following is a full, true, and exact description, reference being had to the accompanying drawings.

This machine consists of mechanism whereby buttons of the kind made by the mechanism of United States Letters Patent No. 350,211, of 1886, heretofore granted to me, can be produced.

My invention will be readily understood from the accompanying drawings, in which—

Figure 1 represents a vertical section of my machine; Fig. 2, a plan view of the same, and Fig. 3 a view of the completed button.

The buttons consist of an upper part, O', with a covering of cloth or stuff, and of a mold-shaped lower part, a'. The joining of these two parts is effected by bending a cylindrical shell, e', fastened to the upper part, around the button lower part. For the making of such a button the machine has a screw-spindle, S', which can be turned by the handle S². In this spindle the stamp S is fastened by means of the pin 1, the lower part of which stamp is properly formed for the bending over of the shell-rim. Beneath the part G a second part, G', is introduced in the cover, through which the end of stamp S passes, and which fits with its projection the part E, set in the foot-plate A of the machine. This projection also contains the somewhat-beveled rim g', as seen in Fig. 1. The fastening of the said part G' in the cover takes place by means of a pronged wire, 2, which rests with its two shanks in a correspondingly-formed rabbet of the part G'. The plunger c, which raises the button in the cylinder E, is operated by the cam D, supported upon the shaft f, turned by the handle H, which carries the segment-piece U, which underruns the bolt-head O' of the bolt O.

For the manufacture of a button by this machine the piece of cloth, l', is pressed with the button upper part, c', on the core C, the lever H having been previously turned forward, so that the segment-piece U has freed the spring-bolt O by its withdrawal from beneath the

conical piece O', attached to the bolt, and the core C takes its deepest position on account of the position of the eccentric D. The mold-shaped button lower part, a', is now placed on the cloth, into which the upper part is pressed, whose rim is somewhat folded inward. After that the cover B is closed. If now the lever H is moved backward, the eccentric D drives the core C upward, and with it the button parts, with the cloth. As at the same time the segment-piece U leaves the disk O' of the pin O, the cover B is locked by said pin, and the cloth pressed upward by the core C finds resistance at the rim g', in consequence of which the rim of the cloth folds itself around the upper part and is now entirely encompassed by the mold-shaped lower part placed upon it. The shell of the upper part projects somewhat from the opening of the lower part in this position of the button parts, and after the stamp S has been moved downward with its end by means of the spindle S' the rim of the shell is turned over the lower part. After turning the spindle back and after moving the lever forward the cover B is opened and the finished button taken out.

The parts required for the manufacture of buttons of different sizes, those of the framing A as well as of the cover G', are kept in the rear of the framing A in a box-like cavity, 3. This box is attached to a door, 5, which can be closed by a hook, 4, in such a manner that the parts placed in the box can be moved with the door either into or out of the space of the framing, according to the door being closed or opened.

For the fastening of the part E of the framing a pin, 7, is provided, which is movable by a spring, 6, and whose rounded end catches in an annular cavity, 8, of the part E. To be able to lift the cover part G' easily out of the cover B, two pins, 9 and 10, are provided, which are fastened to the ring 11, and by which the part G' can be pushed out after removing the wire 2.

The height of the part G in the cover B can be adjusted by the screw K for making buttons of different sizes, and as the stamp S can be changed by removing the pin 1, and the part G' can be changed by removing the wire 2, and the part E can be changed by remov-

ing the pin 7, it is obvious that this machine contains within itself the capacity of making many different kinds of buttons by the simple substitution of parts.

5 What I claim as my invention, and desire to secure by Letters Patent, is—

1. In the machine herein described, the combination of a base supporting a button-forming cylinder and a central core and an adjusting device therefor, a cap above the cylinder provided with a corresponding die removably locked therein by a pronged wire, as described, and a stamp carried by the cap and adapted to be driven through said cap and die by a screw, substantially as set forth.

2. In the machine herein described, the combination of a base supporting a button-forming cylinder and a central core, a cap removably connected to the base and provided with a die having lateral recesses coinciding with recesses in the cap and detachably locked in

place by a pronged wire fitted to said recesses, and a stamp carried by the cap and adapted to be driven through said cap and die by a screw, substantially as described.

3. The combination, in a button-forming machine, of a frame, A, a button-forming cylinder, E, a central core, C, and a bolt, 7, entering a recess in the part E and projecting without the casing, substantially as described.

4. The combination, in a button-forming machine, of a frame containing the button-forming part G', locked therein by a pronged wire, and the ejector-wire 9, for ejecting the same, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CARL AUGUST PFENNING.

Witnesses:

CARL KRÜGER,
F. J. FALKENBACH.