

(No Model.)

W. F. WHITING.

BUTTON OR STUD.

No. 386,764.

Patented July 24, 1888.

Fig. 1.

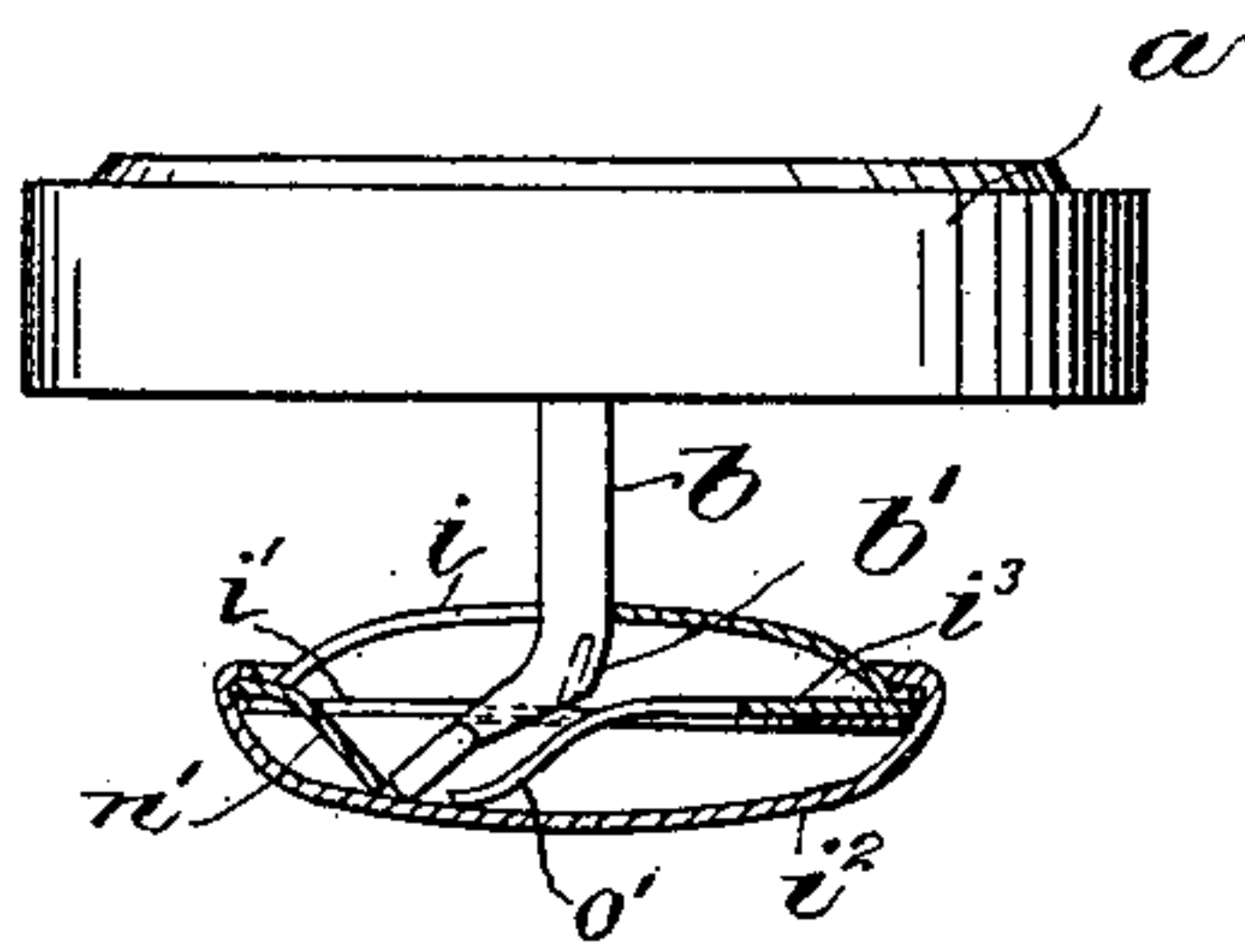


Fig. 2.

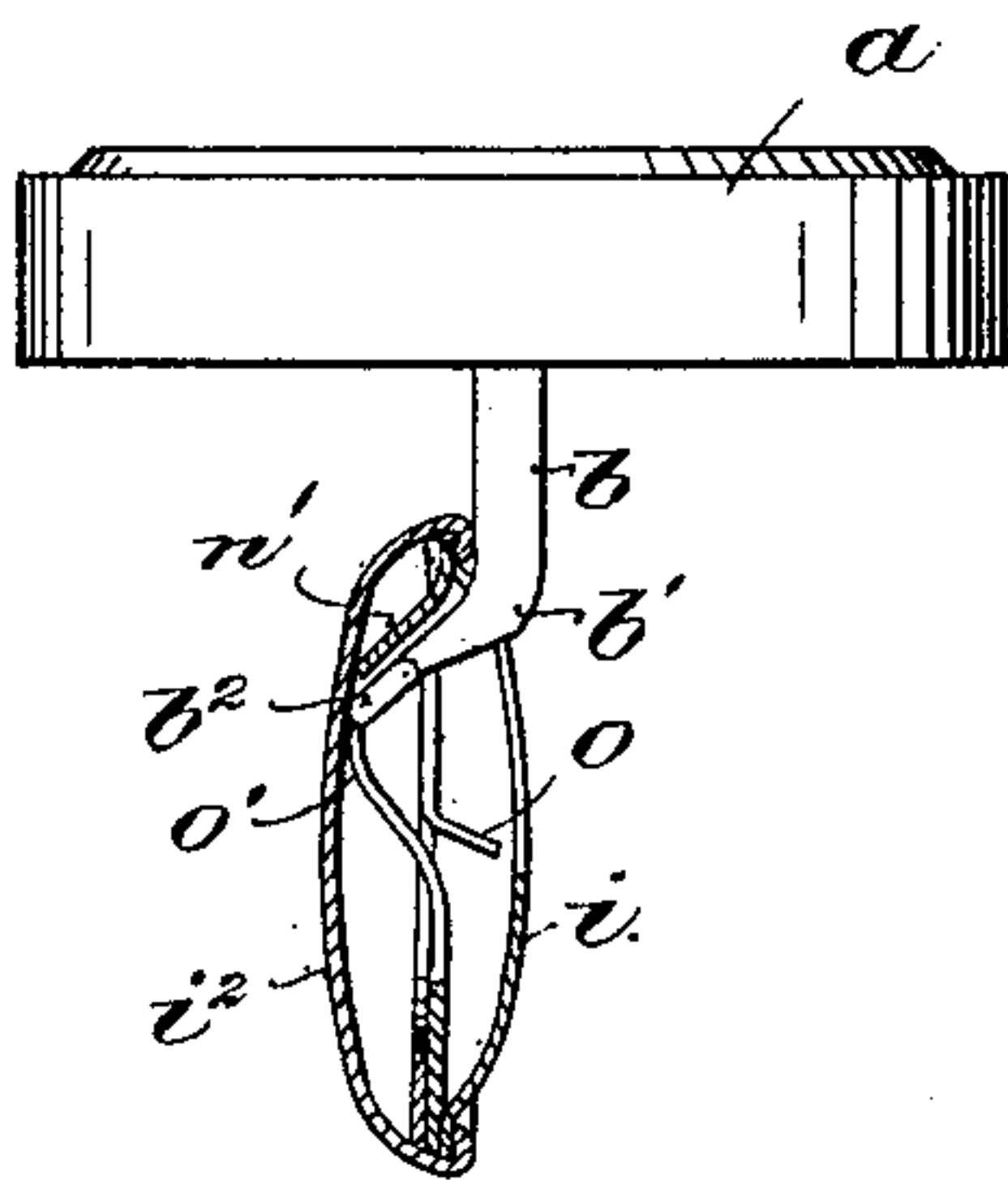


Fig. 3.

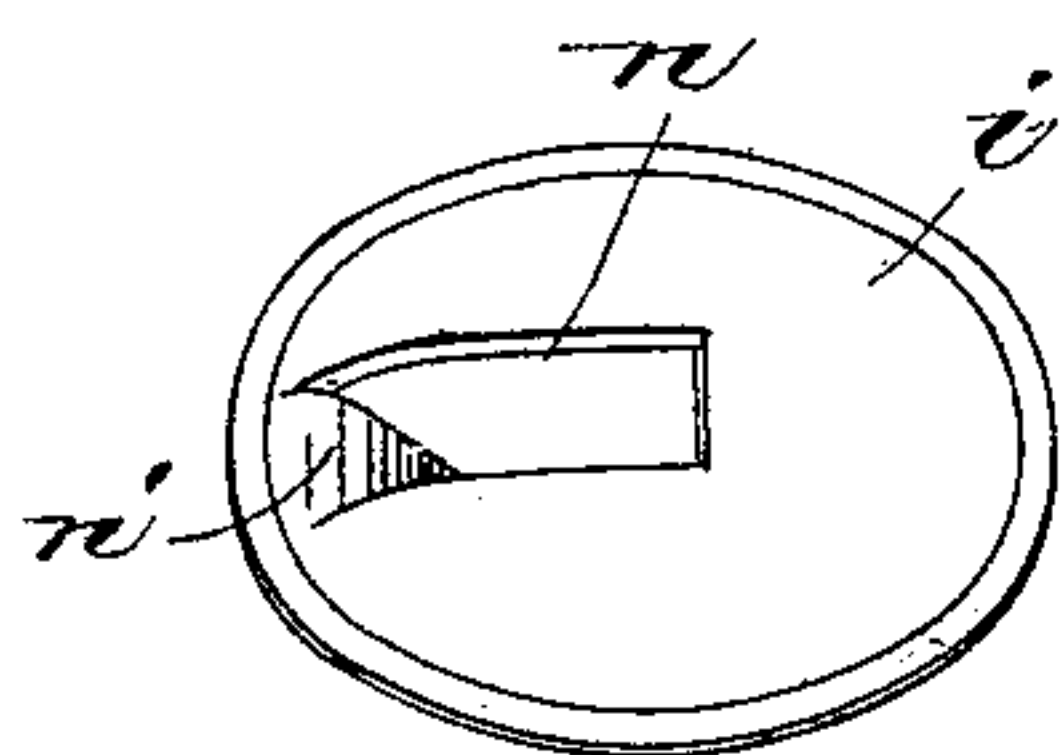


Fig. 4.

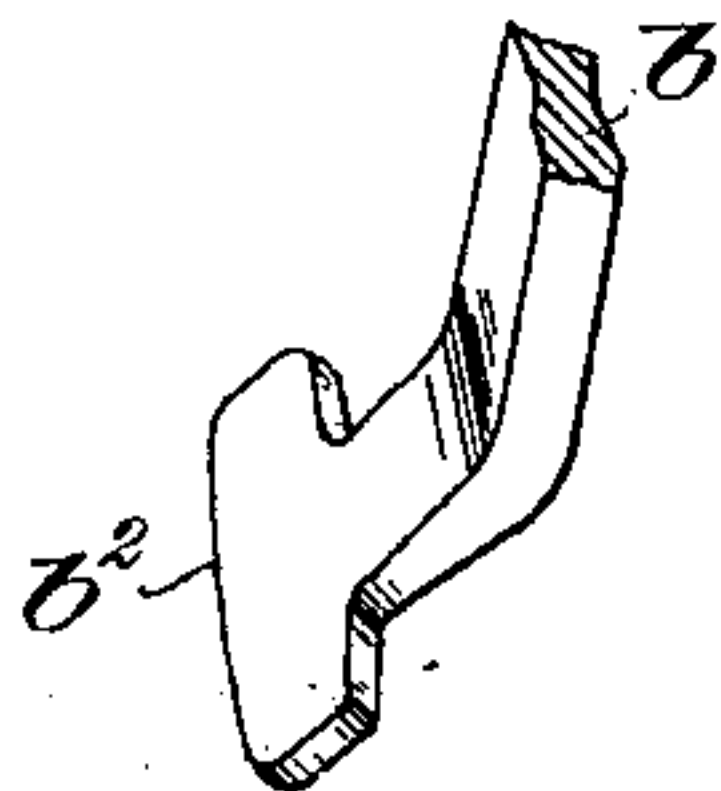
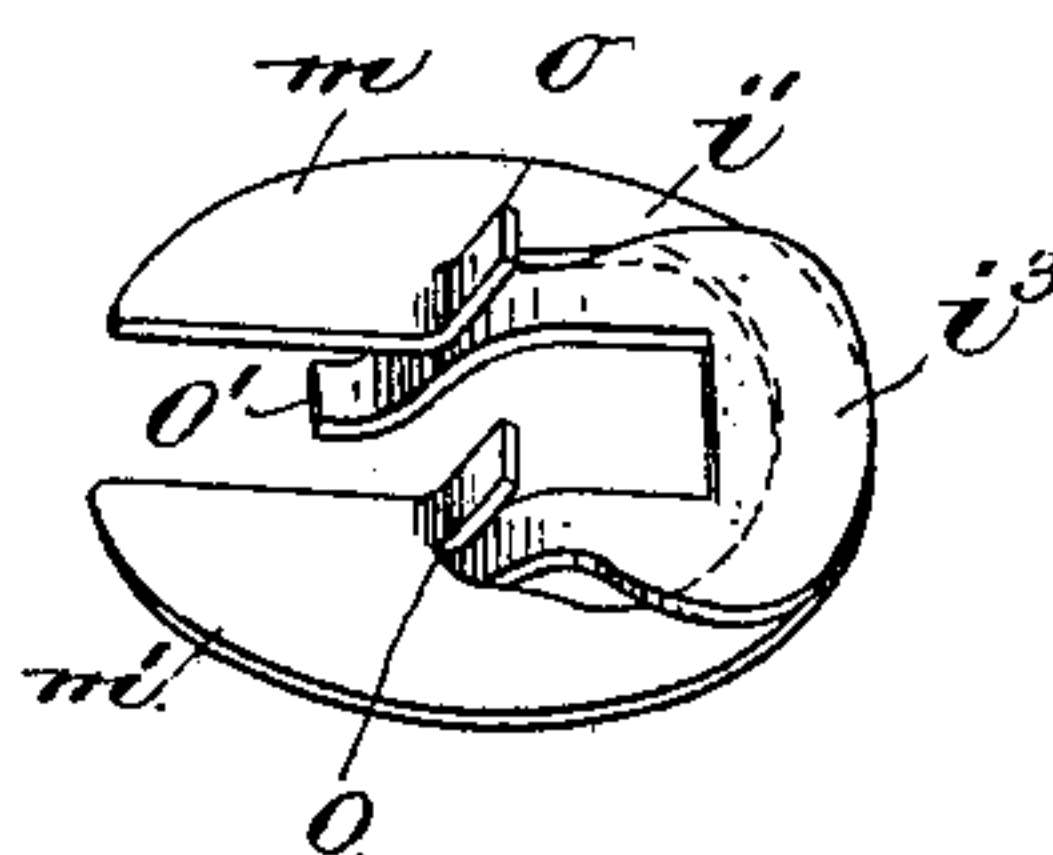


Fig. 5.



Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM F. WHITING, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO
HIRAM HOWARD AND STEPHEN C. HOWARD, OF SAME PLACE.

BUTTON OR STUD.

SPECIFICATION forming part of Letters Patent No. 386,764, dated July 24, 1888.

Application filed April 30, 1888. Serial No. 272,330. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. WHITING, of Providence, county of Providence, and State of Rhode Island, have invented an Improvement in Buttons and Studs, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 This invention is an improvement upon the button or stud shown in my application, Serial No. 261,723, filed January 24, 1888, and has for its object to improve the construction of the button therein described, whereby a better operating and more desirable button or stud is produced.

In accordance with this invention, instead of employing a plate having two spring-arms and a limiting-stop with which the rocker of the bent post co-operates, I employ two independent plates or disks, one of which serves the purpose of the two spring-arms, and the other as a limiting-stop for the rocker. The under plate is slotted and has an inwardly-turned projection which terminates adjacent to the limiting-stop of the independent plate, but at the opposite side of the rocker. This form of under plate, and also the cap-plate, is substantially the same as in my application above referred to.

My invention therefore consists in details of construction, to be hereinafter pointed out.

Figure 1 shows a side elevation of a button or stud embodying this invention, the shoe being shown in longitudinal section and as closed; Fig. 2, a similar view to that shown in Fig. 1, the shoe being turned upon the rocker into its other extreme position or in line with the post; Fig. 3, an enlarged detail of the under plate; Fig. 4, an enlarged detail of the rocker; Fig. 5, a perspective detail of the spring-armed plate and the check or stop plate.

The button-head *a* and its post *b*, bent laterally, as at *b'*, and having at its outer end a rocker, *b''*, oblong in cross-section, are substantially the same as in my application above referred to.

The shoe is composed of the under plate, *i*, 50 slotted or cut away, as at *n*, the projection *n'*,

and the cap-plate *i''*, of suitable size and shape to inclose or embrace, and thereby hold assembled, the several independent parts of the shoe.

A plate, *i'*, is placed within the shoe between the under and cap plates, it being made of spring metal and formed or cut away to present two spring-acting arms, *m m'*. The interior of the said plate *i'* is also slitted to form two projections, *o*, which are thereafter bent upward, as shown in Fig. 5. A check or stop plate, *i''*, is also provided, it having two outwardly-extended and slightly-bent arms, *o'*, which serve as limiting-stops. The plate *i''* is placed upon the spring-armed plate *i'*, the bent arms or stops *o'* of said plate passing downward beneath or through the spring-armed plate, to thereby project in a direction opposite the stops or projections *o*. The two plates *i'* and *i''* are held in place within the shoe, and the rocker *b''*, when the parts are properly assembled, occupies a position between the spring-armed plate *i'* and the cap-plate *i''*, the outer edge of the rocker lying between the stops *o'* and the stop *n'*. When the shoe is turned on the rocker, owing to the oblong shape in cross-section of said rocker and it bearing against the cap *i''*, it moves the spring-arms *m m'* out of their normal position, and as the said spring-arms are moved the projections *o* thereon limit the movement by bearing against the interior of the under plate, *i*.

It will be seen that when the shoe is in the position shown in Fig. 1 the rocker bears against the limiting-stop *n'*, and when the shoe is in its other extreme position, as shown in Fig. 2, the rocker rests against the limiting-stops *o'*.

By making the plates *i'* and *i''* independent they may be quite cheaply made, and the operation of the device is equally as good as that shown in the said application, although it will be noticed that the stops *o'* do not yield.

I claim—

1. In a button or stud, the combination, with the bent post and its rocker, of the shoe composed of the spring-armed plate *i'* and the stop or check plate *i''*, the cap *i''*, and the under plate, *i*, substantially as described.

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2. In a button or stud, the combination, with the bent post having the rocker, of the shoe containing the spring arms m m' , and the cap i^2 , the rocker being placed between said spring-arms and the cap, and two or more rigid limiting-stops—one on the under plate of the shoe and another on the stop or check plate i^3 —said stops terminating adjacent to the cap, and between which the rocker works, substantially as described.

3. In a button or stud, the bent post and its rocker, combined with the shoe containing the

spring-armed plate having the projections o , the cap i^2 , and the under plate, i , the rocker being placed between the spring-armed plate and the cap i^2 , substantially as described.

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

WILLIAM F. WHITING.

Witnesses:

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