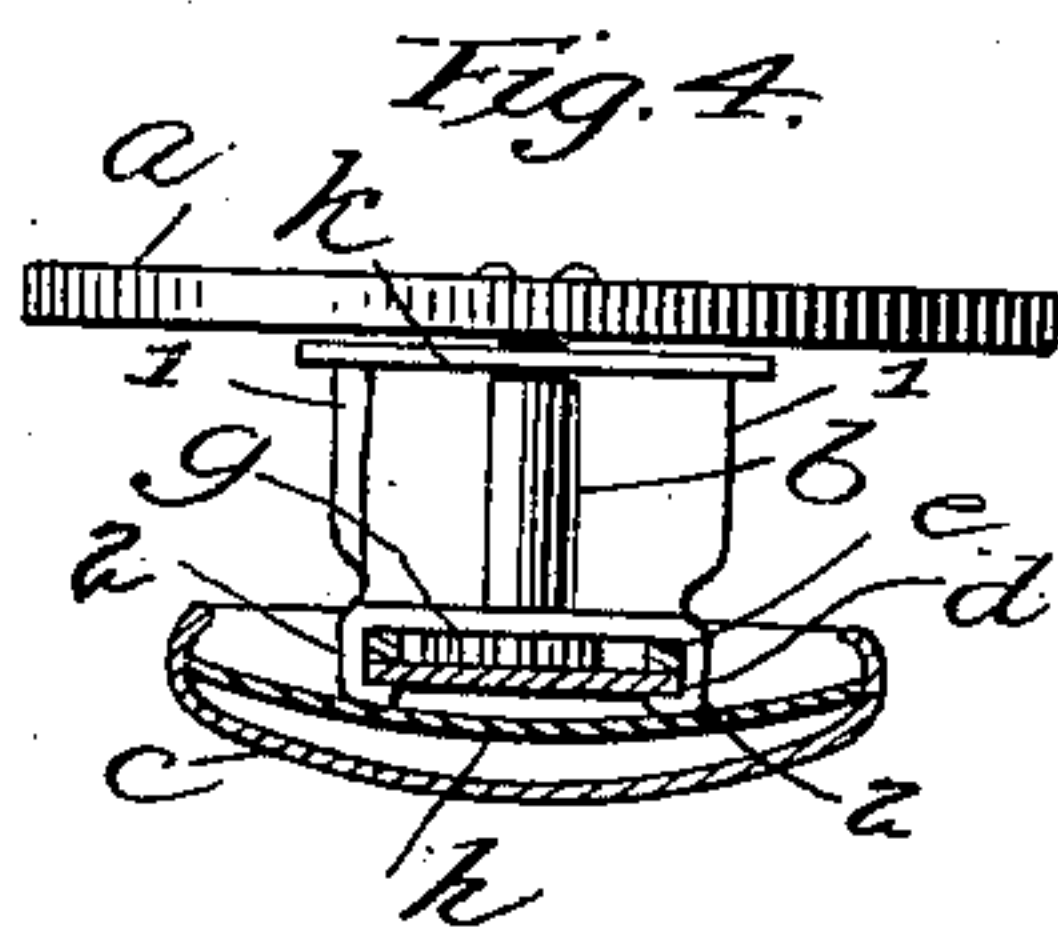
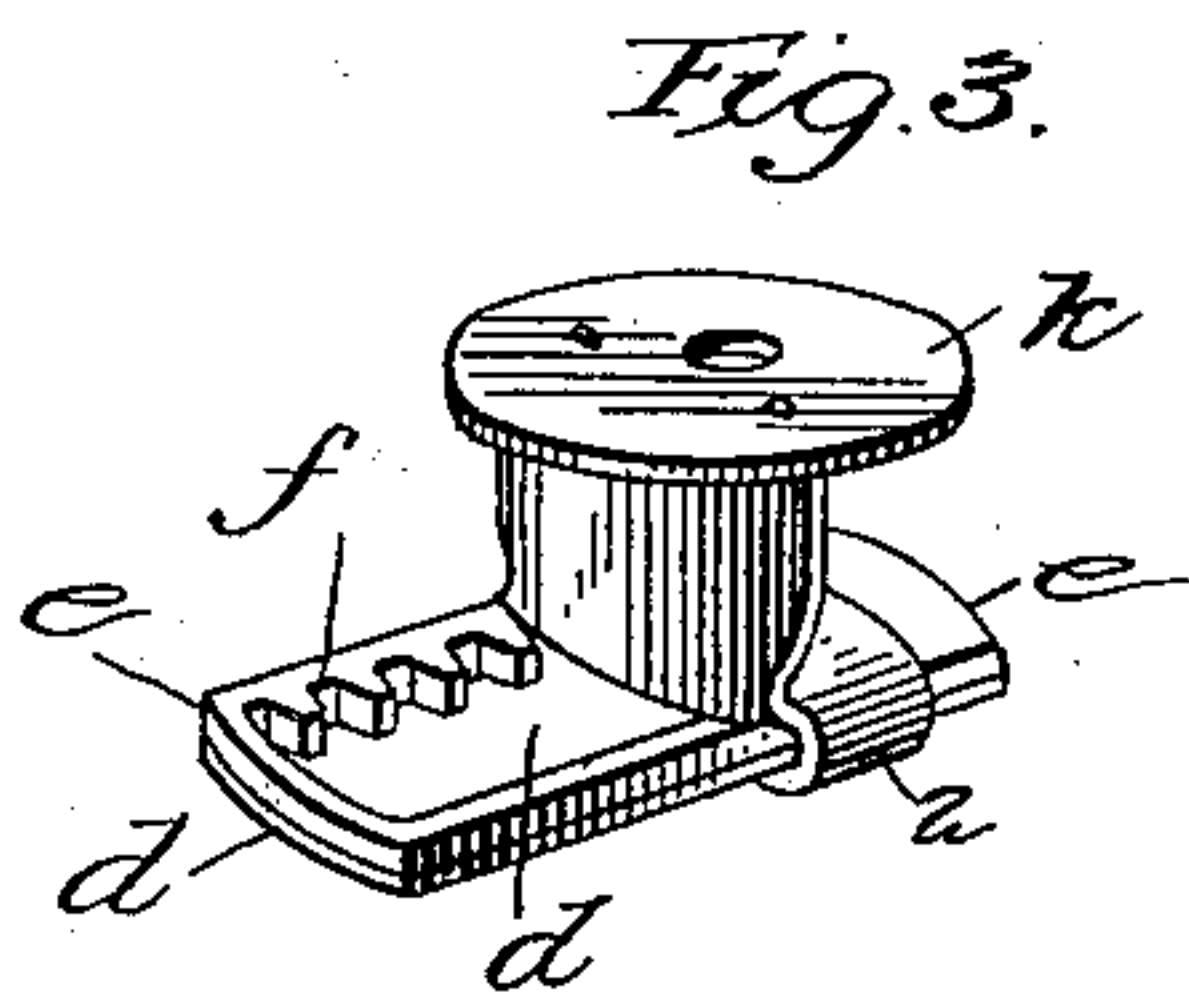
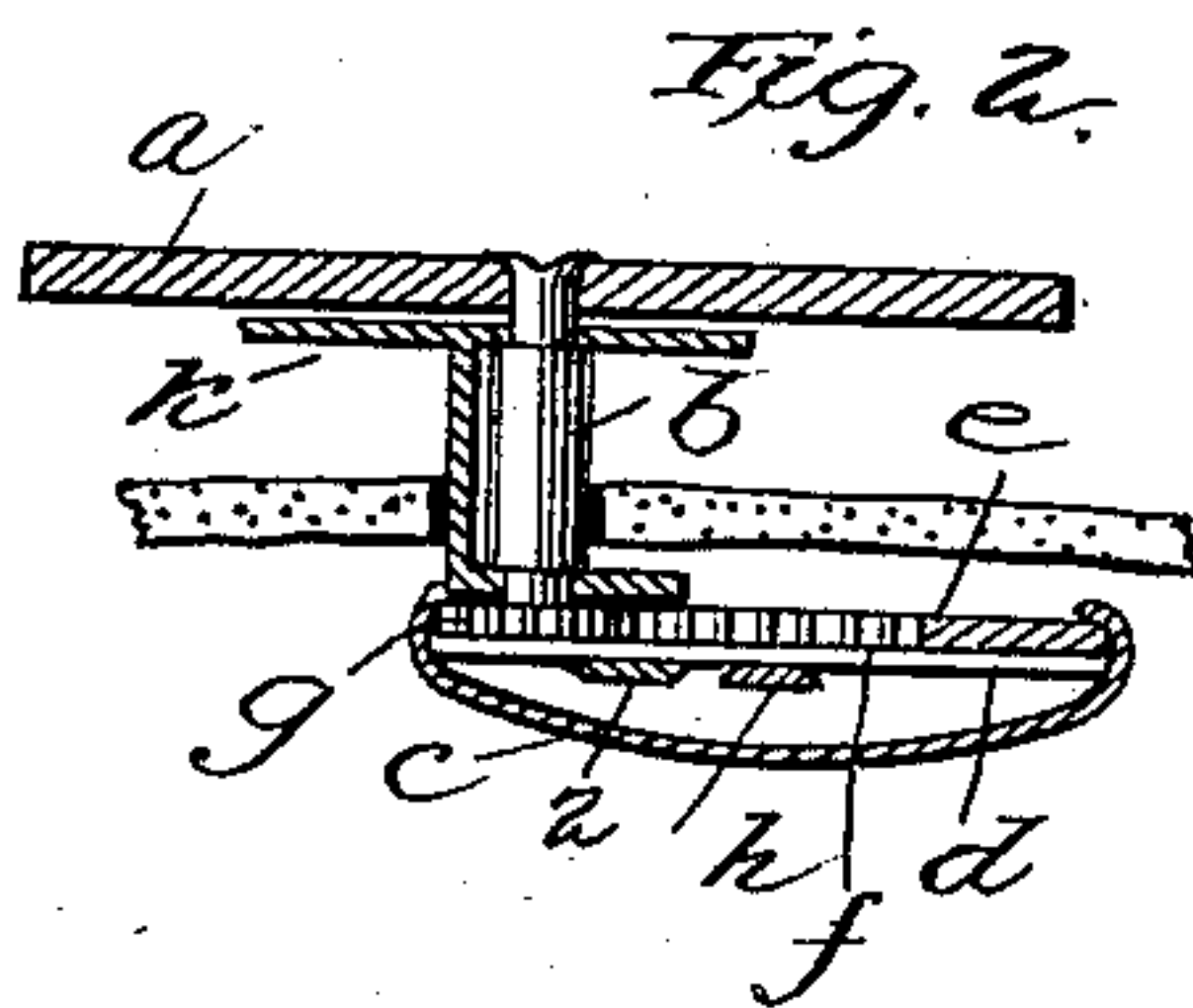
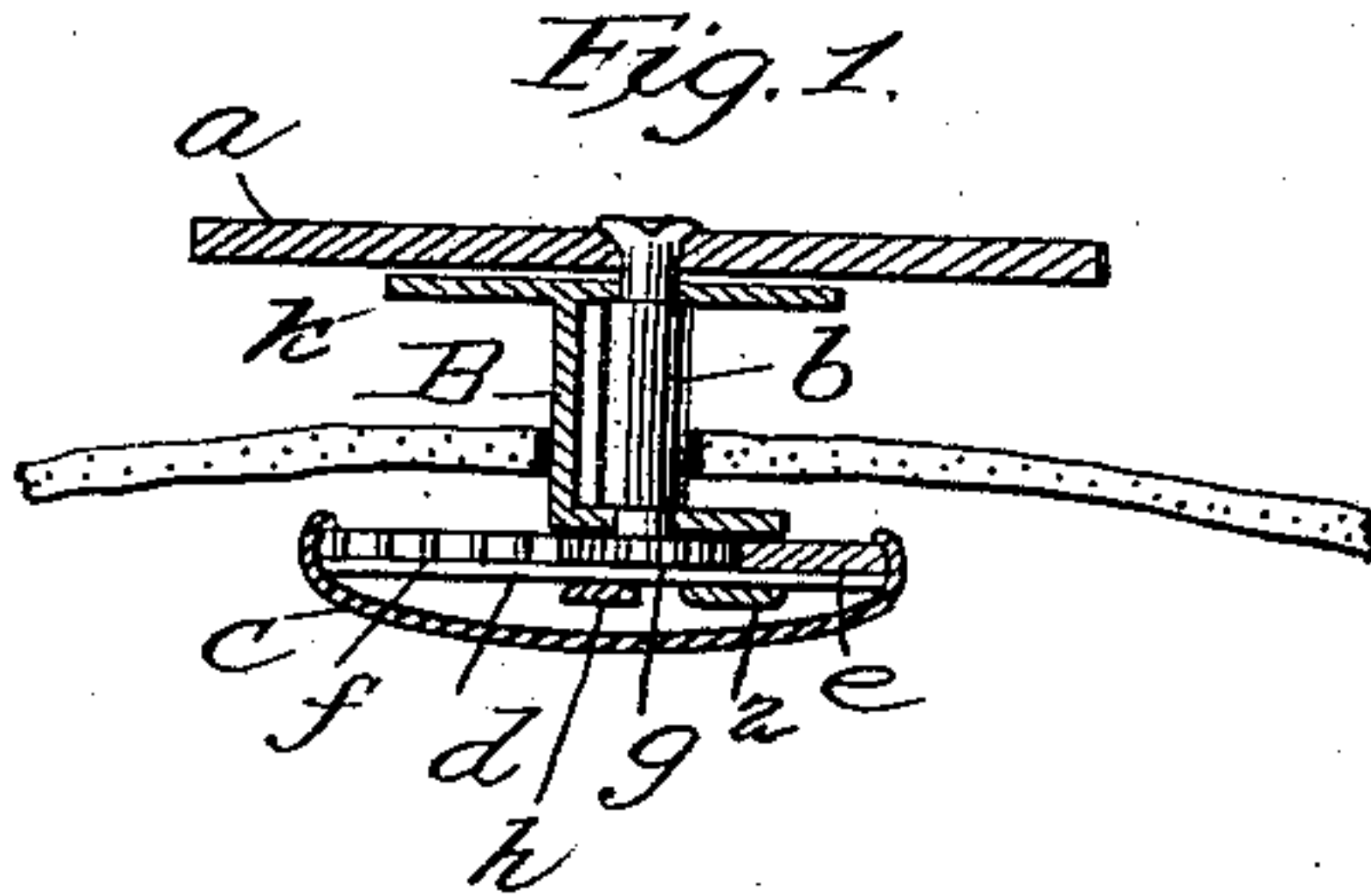


(No Model.)

J. E. TOTTEN.
BUTTON.

No. 375,582.

Patented Dec. 27, 1887.



Attest
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UNITED STATES PATENT OFFICE.

JOHN E. TOTTEN, OF ATTLEBOROUGH, MASSACHUSETTS.

BUTTON.

SPECIFICATION forming part of Letters Patent No. 375,582, dated December 27, 1887.

Application filed May 23, 1887. Serial No. 239,098. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. TOTTEN, of Attleborough, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Buttons; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to buttons, and is an improvement upon the button shown in the patent of Freeman, No. 335,803, of February 9, 1886.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a central vertical section through the button with the post in side elevation. Fig. 2 is a like view with the shoe shifted to one side. Fig. 3 is a perspective of working parts detached from the shoe. Fig. 4 is a vertical section taken at right angles to the section of Fig. 1. These figures are on an enlarged scale.

In the drawings, *a* represents a disk, of sheet metal or any suitable material, adapted to form the under part of the button-front, and to it is rigidly attached a post, *b*, which forms an immediate connection between the button-front and the shoe. This post is made preferably round, as it turns in bearings. As shown, it is connected to the disk *a* by passing through it and being split at the end, with the split portions bent down to form a head; but it may be soldered or connected in any convenient way. The shoe *c* is of ordinary construction, being formed of a disk struck up around on its outer surface, and with the edges turned over to form a flange to connect the parts to which it is attached. The intermediate parts directly connected to this shoe consist of a plate, *d*, having rounded ends adapted to fit under the inwardly-turned flanges of the shoe, and a plate, *e*, cut out in the center from one end a little more than half-way to the other, leaving a rack-bar, *f*, on one side. The space thus cut out in this plate is adapted to receive a pinion, *g*, fitted to engage with the rack-bar. It rests on the bottom against the plate *d*, and, being accurately fitted to the space, is held in engagement with the rack-bar, and as it is turned it moves the shoe from the center toward the edge, or the reverse. Both these plates coincide with each other at the edges, and are held under the flange of

the shoe at their ends. The under plate rests against a spring-bar, *h*, the curved ends of which are also held under the flange of the shoe. The pinion *g* is fixed to the lower end of the post *b*, and when this pinion is held in engagement with the plate the turning of the disk or button-front, to which the upper end of the post is attached, will shift the shoe, so as to change the position of this post from the center toward the side of the shoe, or the reverse.

In order to hold the button-front and shoe firmly together, I provide a second post, *B*. This consists of a plate of metal slightly curved in the center part, but with straight flanges *l l*, connected at its outer end to a small disk, *k*, having a hole in the center of it. The post *B* is fixed to this disk by soldering or in any suitable way, and the post *b* lies in the hollow of the curve of the post *B*, and projects through the center of the plate *k*. The lower part of the post *B* is bent at right angles, and has a hole opposite the hole in the disk *k*, through which the lower part of the post *b* passes. The part bent at right angles has two flanges, (marked *2 2*), which are turned over to embrace the edges of the plates *d e*. They are slightly turned under the plates, and are sufficiently loose to allow the shoe to slide freely as the pinion is turned. By these flanges the post is held firmly to the plates, and thereby to the shoe. The pinion is held securely in engagement, and a very firm connection is formed between the front part of the button and the shoe, both posts serving as a shank. The post *B*, being wide and thin, prevents the button from turning in the button-hole, so that the turning of the button-front attached to the upper part of the post *b* shifts the shoe laterally without turning either the shoe or the post *B*, and thus the button may be removed or put in position for easy removal by simply taking hold of the front part. At the same time the pinion in engagement with the rack locks the shoe in place with sufficient firmness to hold the button in position very securely.

I claim as my invention—

1. In combination, a button-front, a post, as *b*, connected thereto and having a pinion upon its lower end, a plate secured to the shoe having teeth upon one side for engaging the pinion, and a post, as *B*, connected to a disk or plate

at its upper part, and having a lower part turned at right angles to the post, with flanges embracing the rack-plate, substantially as described.

5 2. In combination, a button-front, a shoe containing a rack-plate, a post, *b*, connected to the button-front and having a pinion upon its lower end gearing with the rack-plate, a
10 post, *B*, connected to a disk at its upper part and having an angular lower part with flanges

embracing the rack-plate, and a spring in the shoe beneath the rack-plate, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two sub- 15
scribing witnesses.

J. E. TOTTEN.

Witnesses:

THOMAS TOTTEN,

JOSEPH E. POND, Jr.