

(No Model.)

R. H. LEWIS.

LEVER BUTTON.

No. 354,068.

Patented Dec. 7, 1886.

Fig. 1.

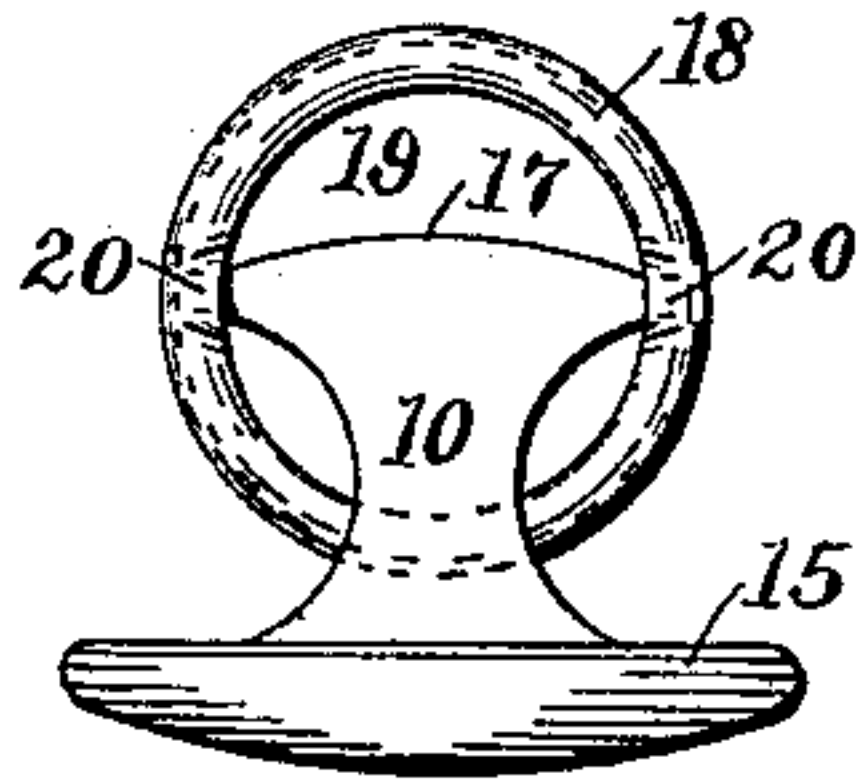


Fig. 2.

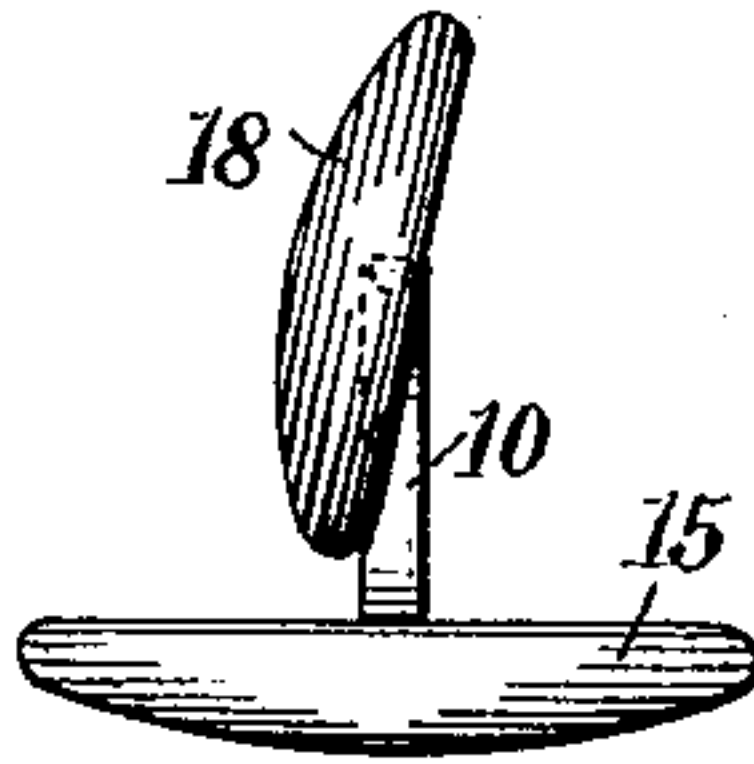


Fig. 3.

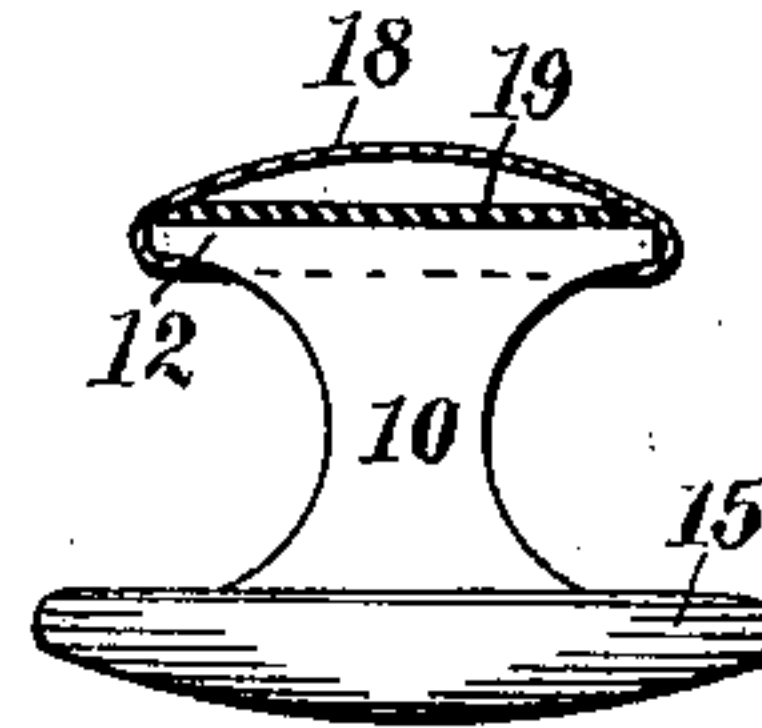


Fig. 4.

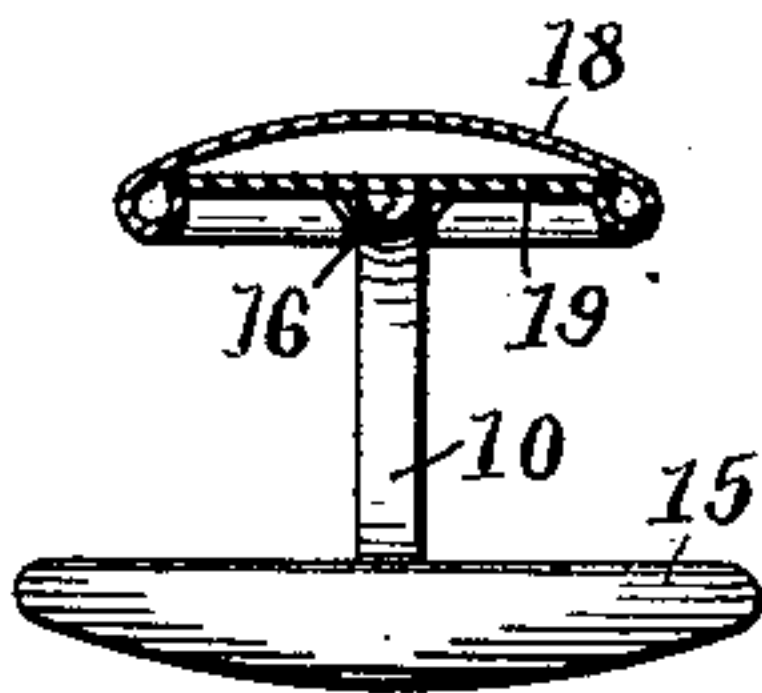


Fig. 5.

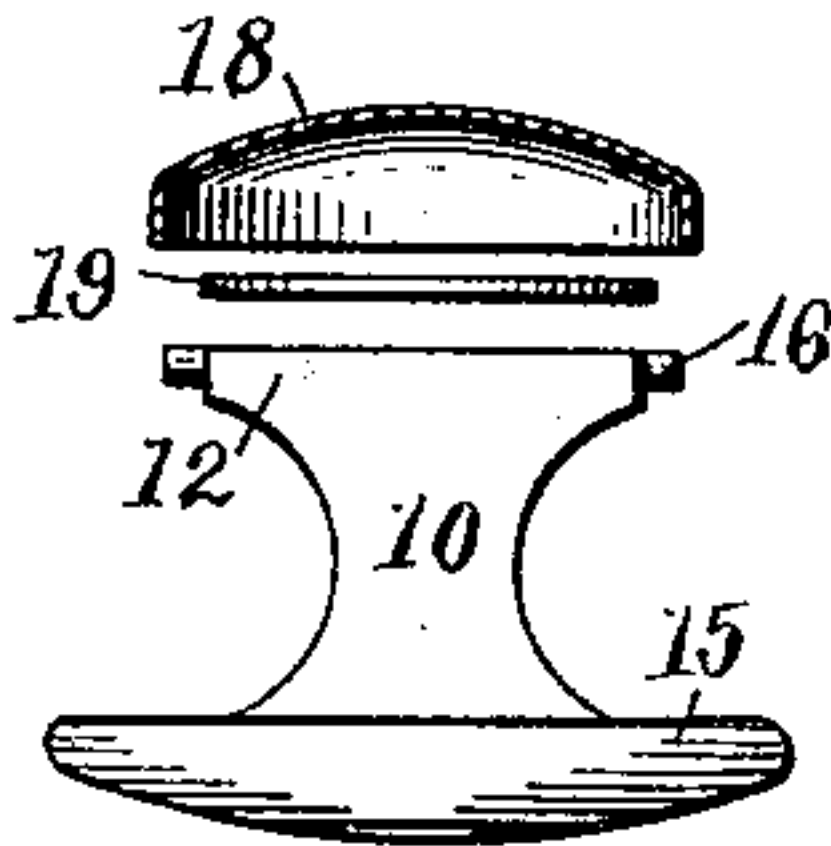


Fig. 6.

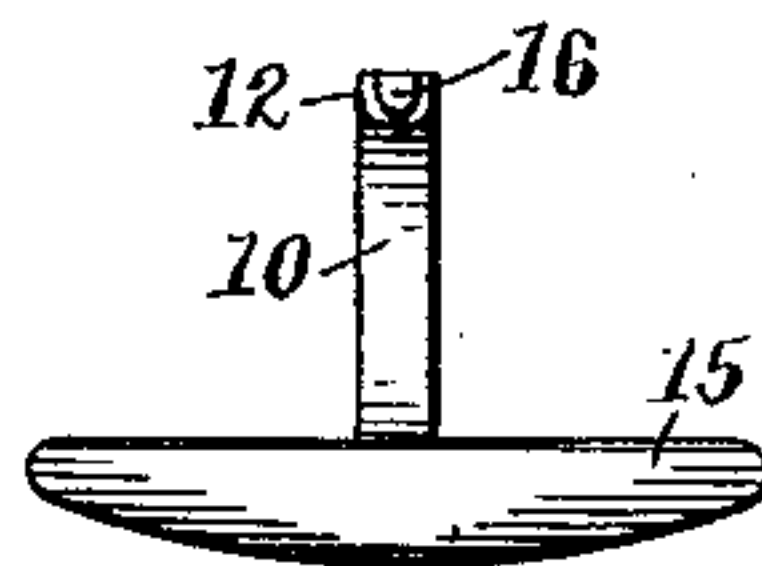


Fig. 7.

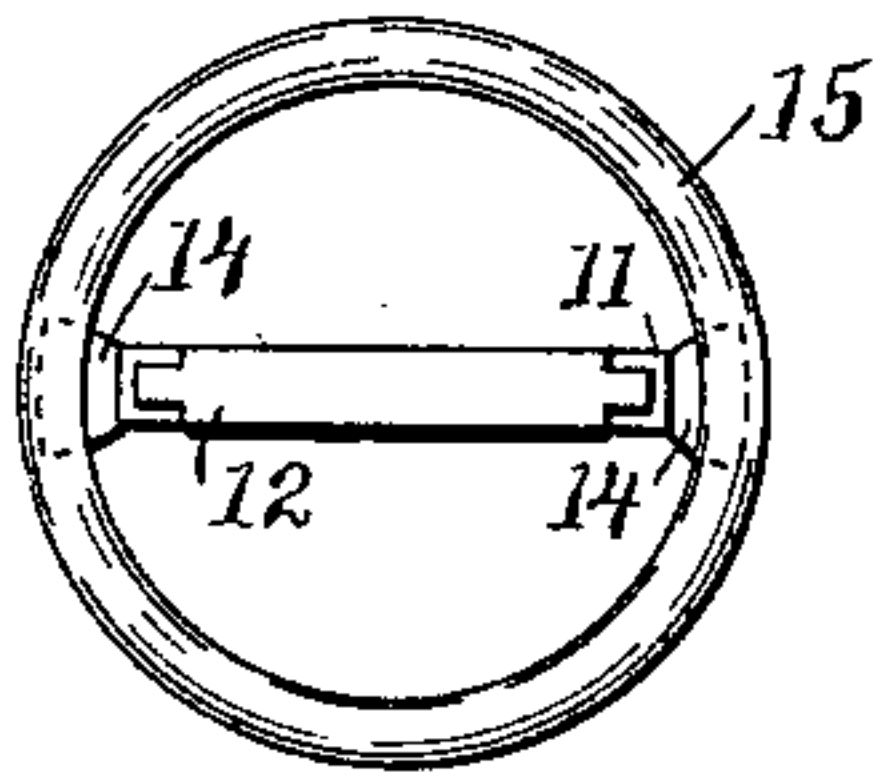
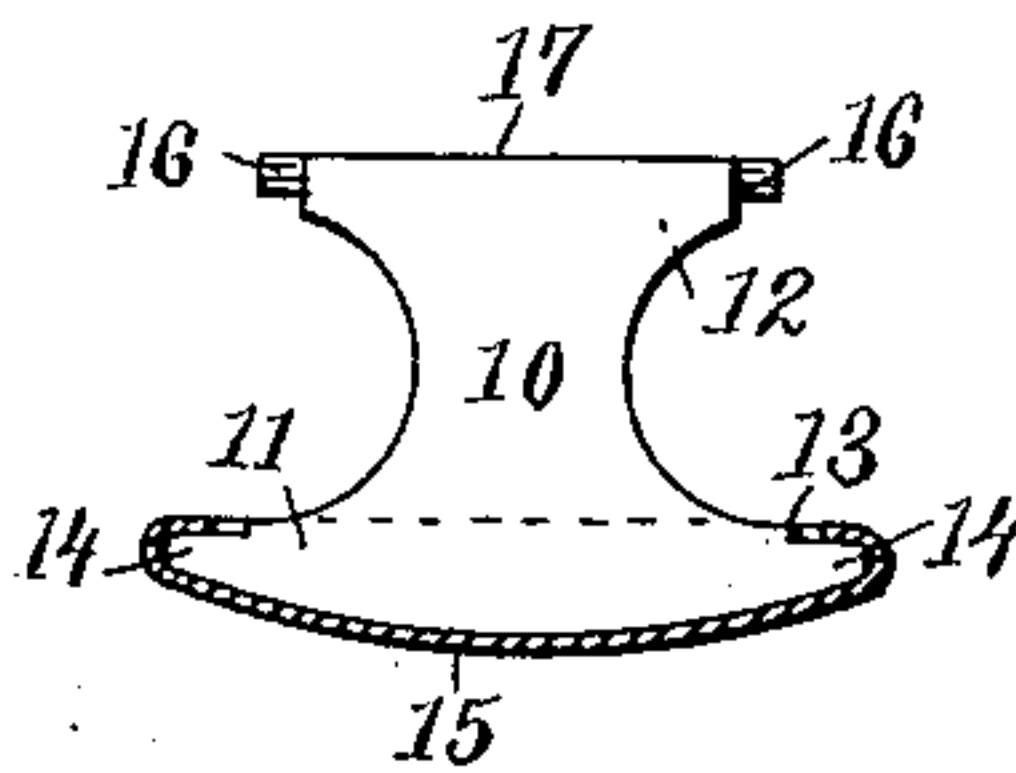


Fig. 8.



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LEVER-BUTTON.

SPECIFICATION forming part of Letters Patent No. 354,068, dated December 7, 1886.

Application filed July 8, 1886. Serial No. 207,414. (No model.)

To all whom it may concern:

Be it known that I, RUSSELL H. LEWIS, of the city and county of Providence, and State of Rhode Island, have invented certain new and useful Improvements in Lever-Buttons, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to the particular kind of button known as a "lever" button, which consists, essentially, of a button-head provided with a post, and of a movable shoe adapted to hinge and swing upon the end of the post, for the purpose of resting the shoe at right angles to the post, in order to lock the button in a button-hole, or for the purpose of tilting the shoe into a position almost parallel to the post, in order to facilitate the insertion of the button in or its removal from a button-hole. An important requisite of this form of button is that it be constructed of a movable shoe having few and durable parts, and, further, that the shoe can be tilted or thrown down into a position very near parallel to the post or maintained securely at right angles thereto, and, further, that the button presents no points or obstructing parts to impede the ready passage of the same through a button-hole or its withdrawal therefrom.

The objects of my invention are to provide a neat and compact form of lever-button constructed of but few parts, and that has positive secure actions of the shoe, and that may be cheaply and easily manufactured.

To the above purposes my invention consists, essentially, in the construction of a movable shoe comprising a shoe cap and a spring-plate fixed together, and of the journaling of the bearings or pintles of the post in the rim or edge of the shoe-cap, and of the novel construction in securing the post to the head, all as hereinafter fully described and claimed.

In the accompanying drawings, illustrating my invention, Figure 1 represents a side view of my improved button, the shoe being thrown down upon a side of the post. Fig. 2 represents a side view of Fig. 1 at right angles to the view there shown. Fig. 3 represents a side view of the button, showing the shoe resting at right angles to the post and in section.

Fig. 4 represents a side view of Fig. 3, the shoe being in section. Fig. 5 represents a side view of the two parts of the shoe separated and in their relative positions and disposed above the post and head of the button. Fig. 6 represents a side view of the post and head of the button. Fig. 7 represents a top plan view of Fig. 6, showing the manner of securing the head to the post, the outer flat ends of the post being shown in broken lines. Fig. 8 represents a side view of Fig. 6, the button-head being shown in section.

In the said drawings like numbers of reference designate corresponding parts throughout.

Referring to the drawings, the post 10 is illustrated as broad and flat, with two opposite sides curved inward toward each other. The post 10 is provided at the head and foot with the approximately-shaped T ends 11 and 12, respectively, the latter being shorter than the former. The outer edge of the head of the post is convex, as clearly shown in Fig. 8, and the outer ends thereof are flattened out in a plane normal to the long axis of the post, in order to form the shoulders 13 and the holding or securing ends 14. The button-head 15 is saucer-shaped, and is formed snugly against the head 11 of post 10, and has the rim spun over upon itself and fitted securely over the holding ends 14, upon their flat faces. By this construction the button-head is firmly set upon the head of the post by spinning and without soldering.

At the outer ends of the foot 12 of the post are disposed the pintles or bearings 16, consisting of lugs projecting at right angles to the long axis of the post. The pintles are semi-cylindrical in cross section, having the face that is flush with the edge 17 of foot 12 flattened, in order to facilitate snapping the movable shoe into its several positions.

The post 10 is here illustrated as very broad in the body; but this form may be readily modified to a double-T-shaped body, so as to provide the necessary T end at the head and foot of the post, respectively.

The movable shoe of my button is constructed of a saucer-shaped shoe-cap, 18, and a disk-like spring-plate, 19. The latter is made of any suitable resilient material. The

shoe is movably mounted upon the post 10 by first placing the spring-plate 19 within the concavity of the shoe-cap 18, and then setting the exposed face of said plate down flatly upon the surface 17 of the foot 12, so that the same takes diametrically across the plate, which is held at right angles thereto. In this condition the projecting rim or edge of the shoe-cap is turned or bent inwardly on the cap by spinning or otherwise, so that the rim may rest snugly and be securely clamped upon the plate 19 and over the curved faces of bearings or pintles 16. By virtue of this manner of hinging the shoe upon the post the bent rim of the shoe has been formed with suitable journal cavities or sockets, 20, for the engagement of the pintles 16, and the shoe has its plate 19 pressed upon the surface 17 of the post. The shoe is therefore quite firmly set at right angles upon the post, and when either side of the shoe opposite a broad side of the post is thrown or tilted down the spring-plate will come into play, and will of course snap and hold it in the tilted position.

To increase the spring power of the shoe in its tilting action, the surface or top 17 of the post or foot may be formed slightly convex on the length of the same, as shown in Fig. 1, so that the leverage of the tilting is increased, and accordingly the flexing of the spring-plate.

It is evident that the button herein described forms a neat structure, and that the shoe has a very positive action, and, further, the shoe in the tilted position lies flatly against the post and quite parallel therewith.

There may be various modifications made in the features of my invention without departing substantially from the spirit of the same, as herein described and claimed. For instance, the journal box or cavity, formed in the rim of the shoe-cap, may be an eye or may be more elaborately constructed than what I show, for my invention contemplates such equivalent constructions.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of a button-head, a post for said button-head and provided with bearings or pintles near the foot thereof, and a movable shoe consisting of a shoe-cap and a spring-plate secured together, the margin or edges of said cap formed with journal cavities or sockets for said bearings or pintles on the post, whereby the spring-plate may ride across the foot of the post and between the hinge-points.

2. The combination of a button-head, a post for said head and provided with fixed lateral bearings at the foot thereof, and a movable shoe

composed of a saucer-shaped shoe-cap and a spring-plate secured within the concavity of said cap, the margin of said cap formed with journal sockets or boxes for said bearings, the bearings working in said journal-boxes, whereby the spring-plate may ride upon the foot of the post and be strained or unstrained by the tilting of the shoe thereon.

3. The combination of the flattened post provided at the head with the laterally-disposed holding ends, and the button-head formed up over said ends, substantially as described.

4. The combination of the post provided at the head with a T end having flattened holding ends thereon, the outer edge of said T end formed convex, and the button-head having the rim thereof formed up over said holding ends, whereby the button-head may be firmly secured to the post.

5. The combination of the post having the head thereof provided with laterally-disposed holding ends, the button-head formed up over said ends, the foot of said post provided with laterally-extending pintles or bearings, and the movable shoe consisting of a spring-plate and the shoe-cap, said plate set securely within the concavity of said cap, said cap having the rim thereof formed over on the spring-plate, and provided with journal-cavities for said pintles, substantially as described.

6. The combination of the double-T-formed post, the head of said post provided with laterally-projecting flattened holding ends, the button-head formed up over said holding ends, the foot of said post having laterally-extending pintles or bearings formed semi-cylindrical shaped, and the movable shoe consisting of the disk-like spring-plate and the shoe-cap, said cap formed over on said plate and over said pintles, whereby the shoe may be maintained in any of the three positions, substantially as described.

7. The combination of a button-head, a post secured to said head, and provided with bearings or pintles like 16, the movable shoe consisting of the shoe-cap 18, provided with journal-sockets, and the spring-plate 19, substantially as described.

8. The combination of the button-head 15, the post 10, secured thereto and provided with lugs or bearings 16, the shoe-cap 18, provided with journal-sockets 20, and the spring-plate 19, constructed substantially as and for the purpose described.

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Witnesses:

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