

*P. W. Gengembre.*

*Button.*

*N<sup>o</sup> 45400.*

*Patented Dec. 13. 1864.*

Fig. 1.

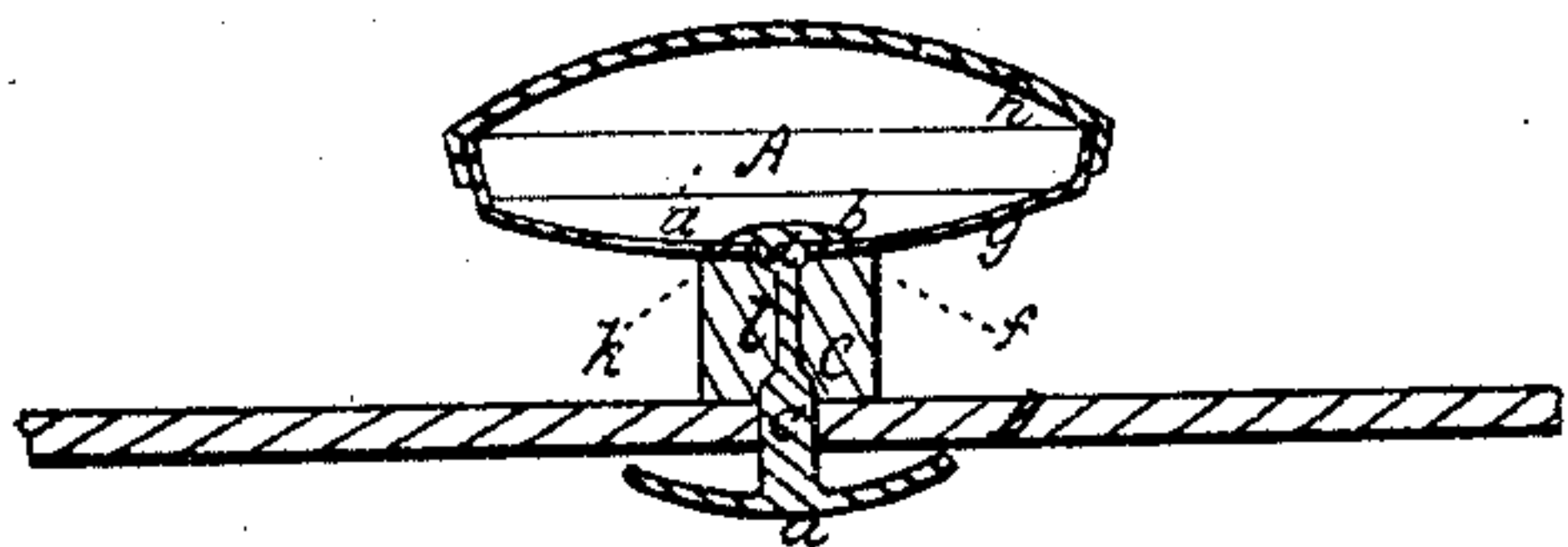


Fig. 6.

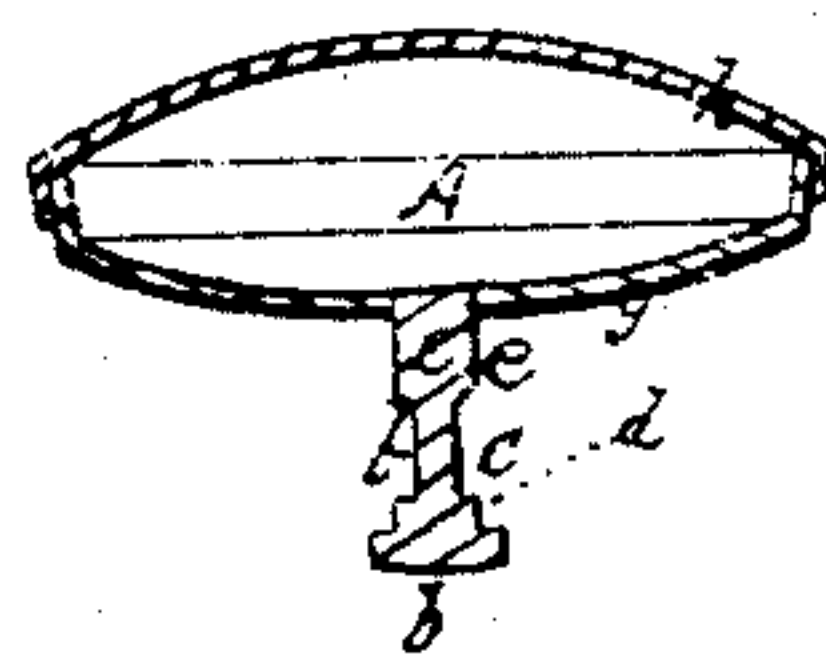


Fig. 2.

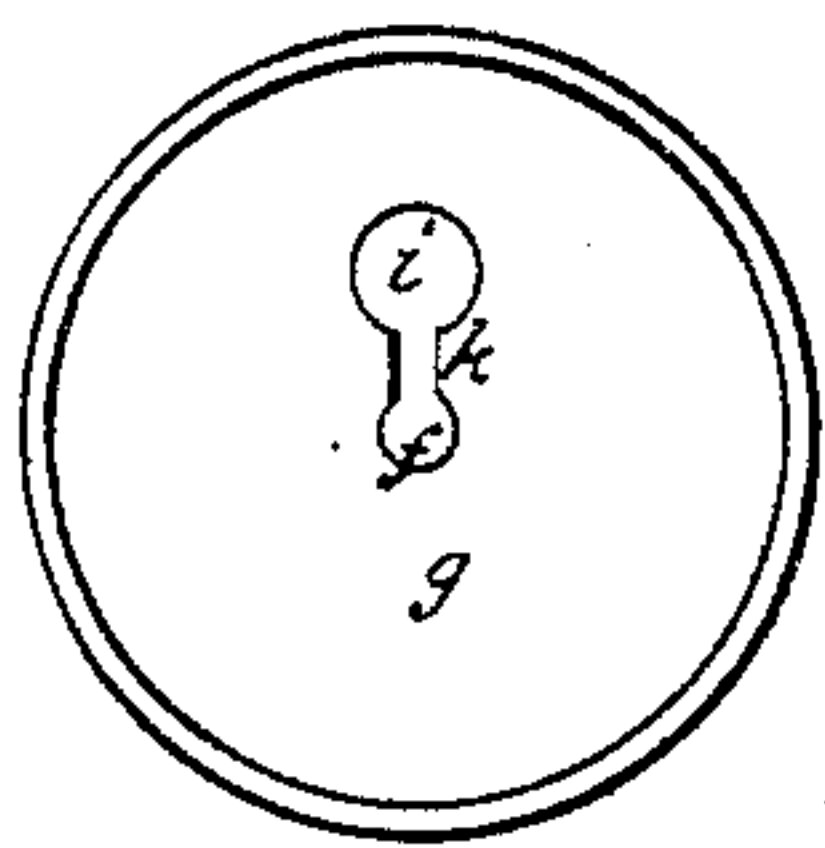


Fig. 5.



Fig. 7.

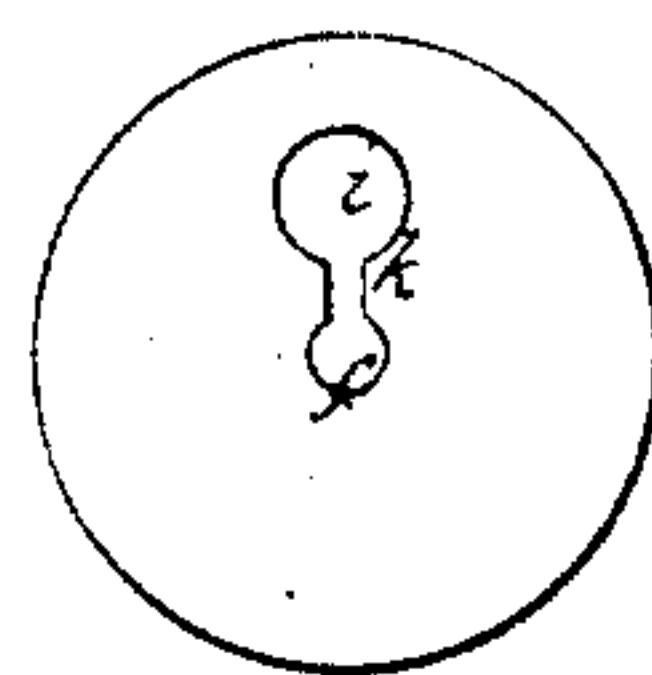


Fig. 3.

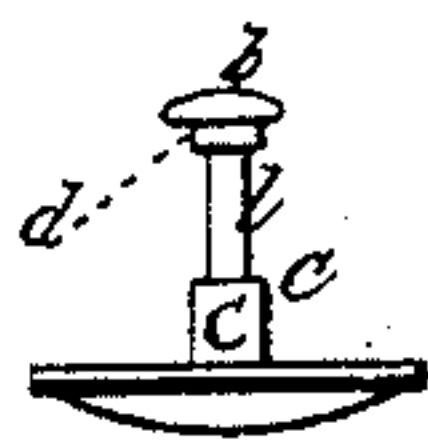


Fig. 4.



Witnesses.

*F. P. Hale, Jr.*  
*Frederick Custis.*

Inventor.

*Philip W. Gengembre*  
*by his attorney*  
*R. M. Eddy*

# UNITED STATES PATENT OFFICE.

PHILIP W. GENGEMBRE, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN BUTTONS.

Specification forming part of Letters Patent No. 45,400, dated December 13, 1864.

*To all whom it may concern:*

Be it known that I, PHILIP W. GENGEMBRE, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Buttons and Fastenings Thereof; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 denotes a transverse section of a button as provided with my improved fastening or invention and as applied to a piece of cloth. Fig. 2 is a view of the back plate of the button-body. Fig. 3 is a side view of the locking-catch. Fig. 4 is a longitudinal section, and Fig. 5 a transverse section, of the india-rubber tube or spring which encompasses the catch.

My present invention may be said to be an improvement on that for which Letters Patent No. 41,292 were granted to me by the United States Commissioner of Patents on the 19th day of January, of the year 1864, my said improvement, under a peculiar construction of it, as hereinafter described, enabling the button-body while in engagement with the catch to revolve relatively thereto without causing the two parts to become disengaged.

The object of enabling the button to readily revolve is to prevent it from becoming irregularly worn during the process of passing it into and out of a button-hole, and especially when the body of the button has either a cloth or thread covering.

In the drawings, which represent the button on an enlarged scale, A denotes the button. The catch C consists of two heads, *a* *b*, and a shank, *c*. That part, *d*, of the shank which is next to the smaller head, *b*, is cylindrical, and of, or about of, a diameter to correspond in size with that of the central hole, *f*, made through the back plate, *g*, of the button A, whose body is chambered or composed of two disks or plates, *g* *h*, the lower of which is concavo-convex. The said plate *g* has another opening, *i*, made through it aside of the opening *f*, and connected with it by a passage, *k*. The diameter of the opening *i* is a little greater than that of the head *b*. Furthermore, the shank *c*, below its part *d*, is reduced in width or diameter, as shown at *l*, so as to be capable of passing through the passage *k*.

B is an india-rubber or other proper spring,

which encompasses the shank of the catch C, and serves not only to protect the button-holes of the cloth from contact with the shank and to press the cloth toward the head *a*, but also to press the button-plate *g* in close contact with the head *b*.

In order to connect the button body with the shank after the latter may have been passed through the cloth D, (or arranged in it in manner as shown in Fig. 1,) the lesser head, *b*, of the shank should be pressed into and through the opening *i* to such extent as to contract the spring B sufficiently to enable the part *l* of the shank *c* to be pressed or passed laterally through the passage *k* in order to allow the spring B on expanding to draw the part *d* of the shank into the hole *f* until the head *b* may be in contact with the plate *g*. The button-body will then be so fixed on the shank as to be free to revolve thereon without becoming disengaged from it under ordinary circumstances when in use.

The disengagement of the button body and the shank may be effected by pressing the body in a direction toward the head *a* and afterward sliding the diminished part *l* of the shank through the passage *k*, in order to bring the head *b* into such a relation with the hole *i* as to enable the said head to be drawn through such hole.

An equivalent for my invention would be to make the button-shank as described, except with the larger head, *a*, and to extend the shank from the button-body in manner as shown in Fig. 6, and have a locking-plate formed with openings *f* *i* and passage *k*, as shown in Fig. 7. In this case the spring B would have to be placed on and around the shank before the introduction of the latter through the cloth. The locking-plate and button-body would be on opposite sides of the cloth. If desirable, the hole *f* and part *d* may have such shapes as to prevent the button-body from being revolved on the shank, the locking-plate or back-plate of the button being provided with the two openings *i* *f* and their connecting-passage *k*, and the shank being made with the reduction *l*, all substantially as described.

The essential elements of my improvement or improved locking mechanism may be said to consist, therefore, not only of the reduction *l* of the shank, but of the holes *i* *f* and their



connecting-passage *k*, the whole being disposed with respect to the shank and the fastening-plate of the button, substantially in manner as specified.

I do not herein claim the combination of the tubular spring with the button-body and a mechanism for locking the shank to the body.

What I claim as my invention is—

The improved locking mechanism, constructed substantially in manner, and so as to operate as described.

P. W. GENGEMBRE.

Witnesses:

R. H. EDDY,

F. P. HALE, Jr.