

J. L. HERZOG.

STUD.

APPLICATION FILED APR. 11, 1908.

908,003.

Patented Dec. 29, 1908.

Fig. 1.

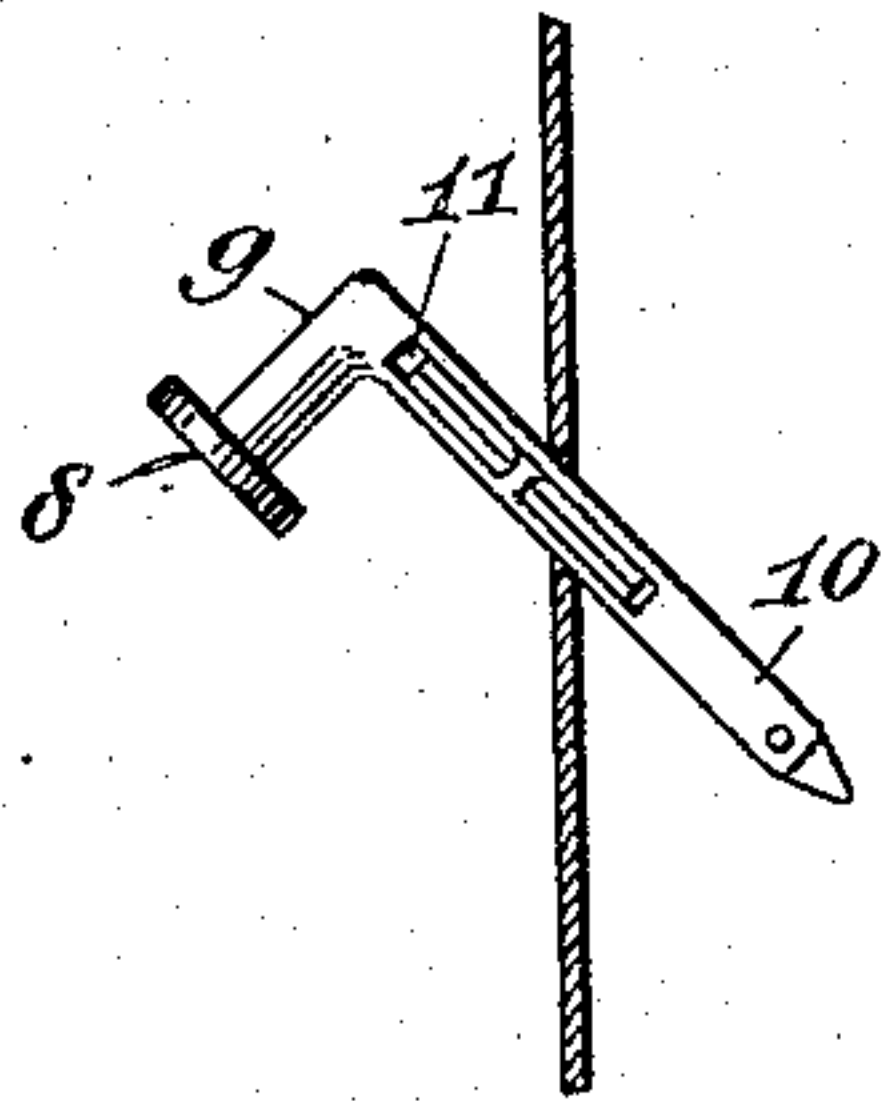


Fig. 2.

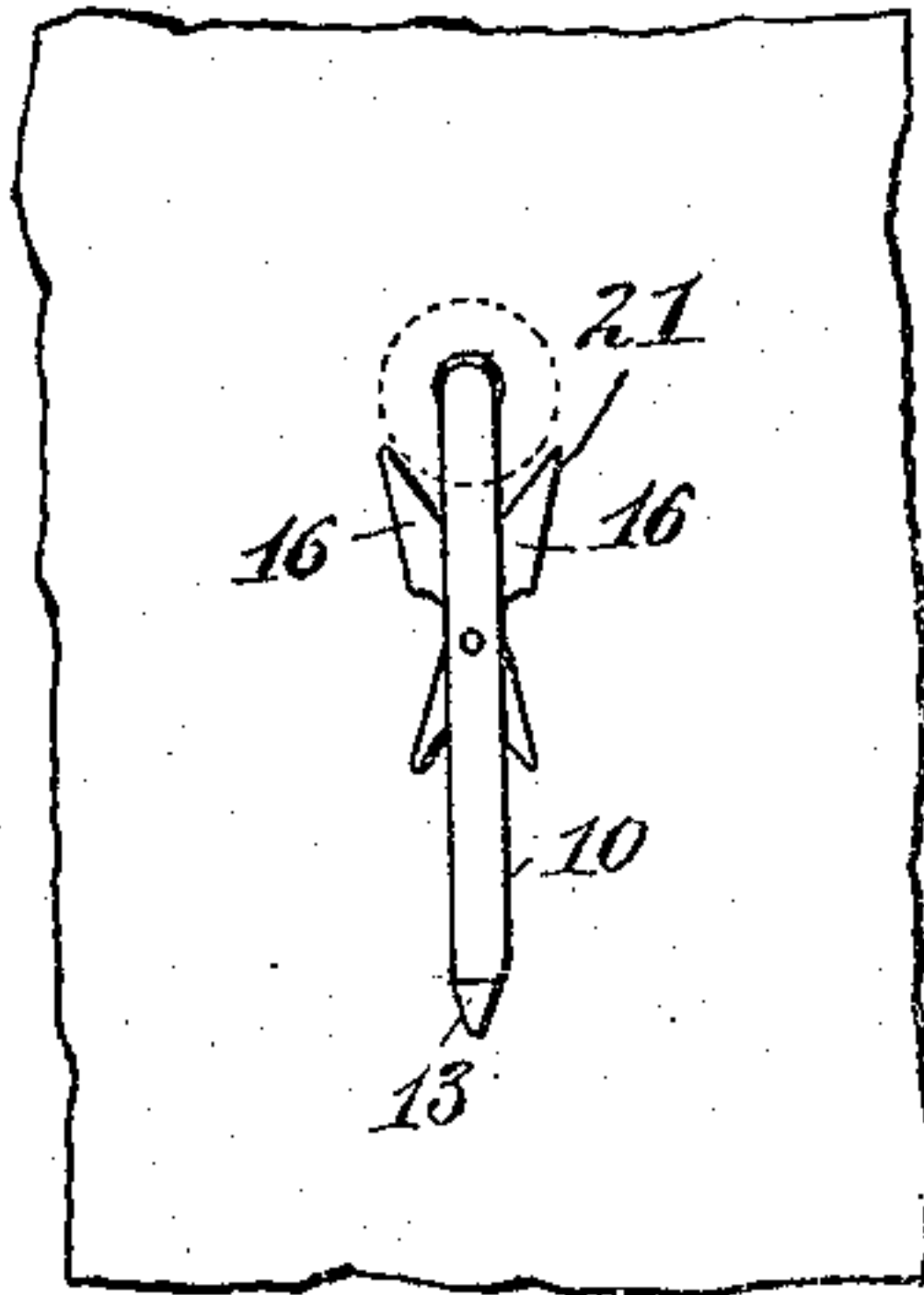


Fig. 3.

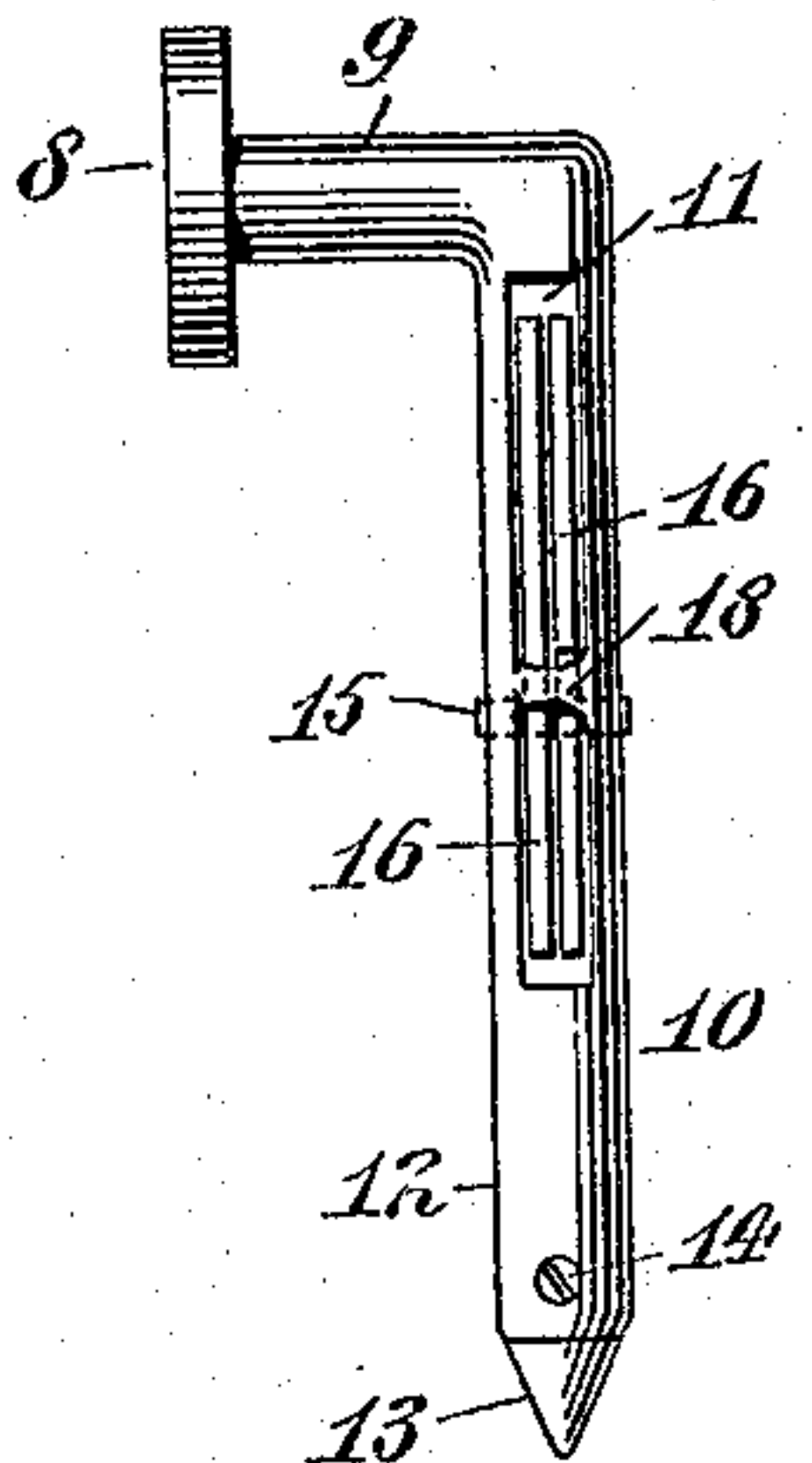


Fig. 4.

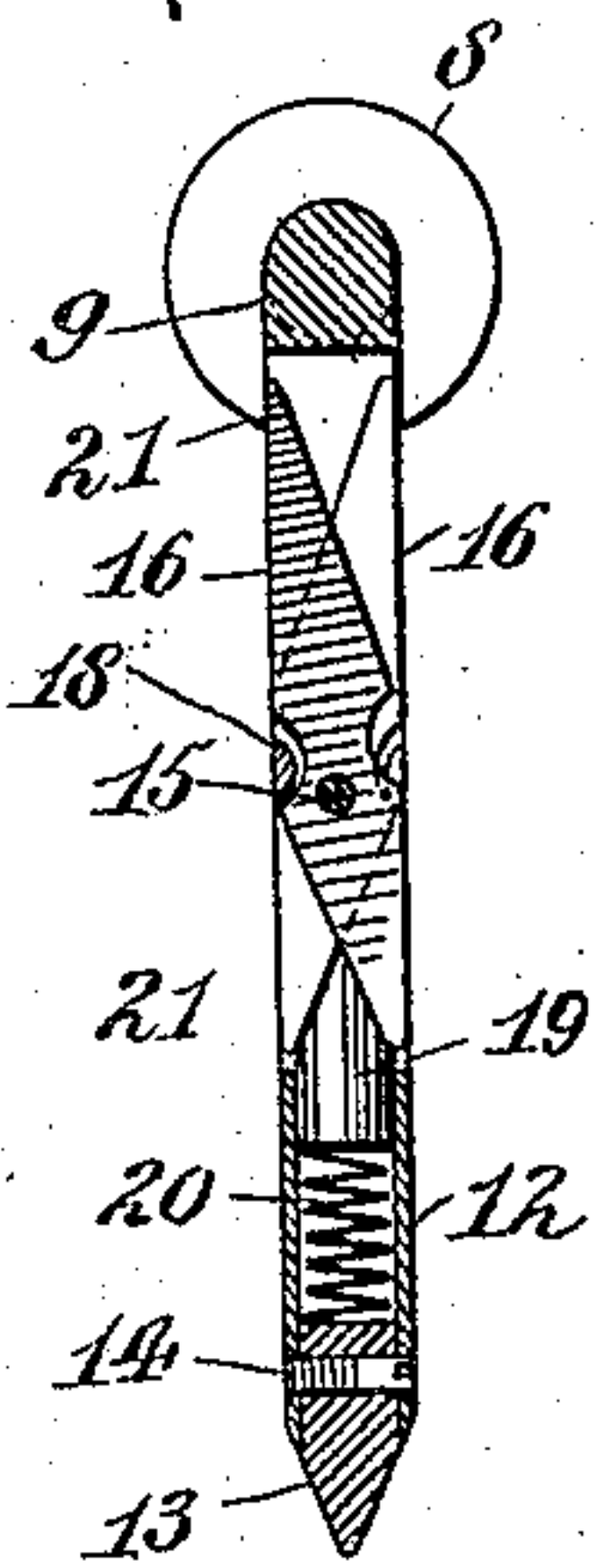


Fig. 5.

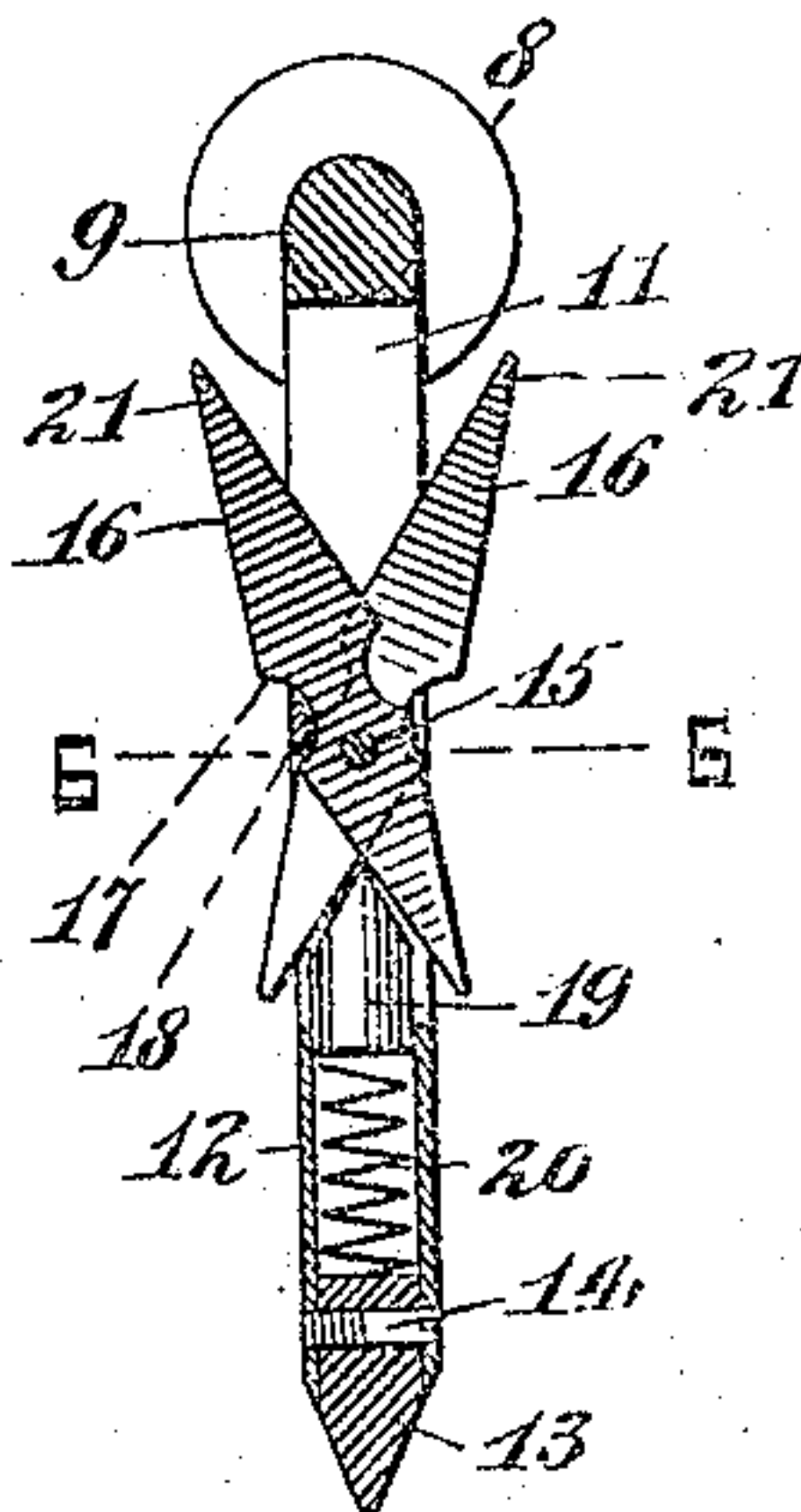


Fig. 6.

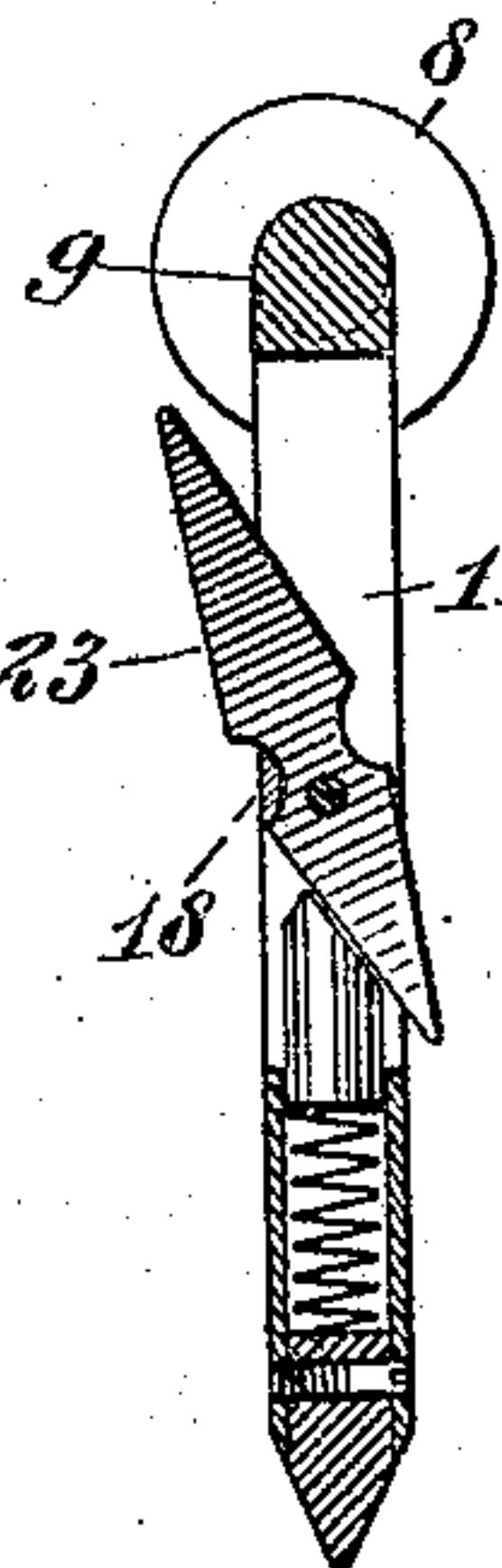
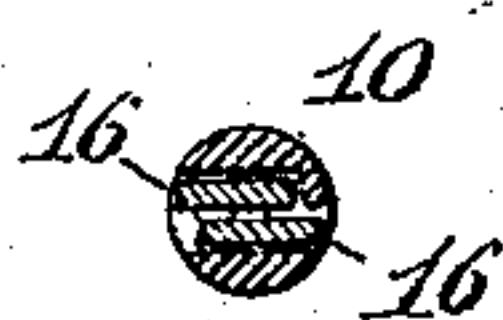


Fig. 7.

WITNESSES  
M. Van Nortwick  
G. Durgert.

INVENTOR  
Joseph L. Herzog  
BY George C. Cook  
ATTORNEY



# UNITED STATES PATENT OFFICE.

JOSEPH L. HERZOG, OF NEW YORK, N. Y.

STUD.

No. 908,003.

Specification of Letters Patent.

Patented Dec. 29, 1908.

Application filed April 11, 1908. Serial No. 426,438.

*To all whom it may concern:*

Be it known that I, JOSEPH L. HERZOG, a citizen of the United States, and a resident of New York, borough of Manhattan, in the county of New York and State of New York, have made and invented certain new and useful Improvements in Studs, of which the following is a specification.

My invention relates to an improvement in studs or buttons, and more particularly to that class or kind which are adapted to be inserted in the eyelet hole or button hole of a shirt bosom, the object being to provide a device of this character which may be quickly and readily inserted in the eyelet hole from the front, and which will be automatically locked in its position, thus preventing it from being accidentally or inadvertently withdrawn.

A further object of my invention is to provide a device of this character which will consist of but few parts, which may be easily and quickly assembled, and which will not be liable to get out of order.

A further object is to provide a device having a removable spring or tension member, so that, in case any repairs are necessary which require the application of heat, the spring may be first withdrawn in order that its resilient or spring like qualities will not be altered or affected thereby, thus permitting the same spring to be used again after the repairs have been made.

A still further object is to provide a device of this character in which the metal at the bent portion between the head and the shank, is not cut away, thereby securing maximum strength at this point.

With these and other objects in view, my invention consists in certain novel features of construction and combinations of parts, as will be hereinafter fully described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in side elevation showing the stud in the act of being inserted within the eyelet hole. Fig. 2 is a rear view of the same after being placed in position. Fig. 3 is a side elevation of the stud or button. Fig. 4 is a vertical sectional view showing the parts in the position which they occupy when the stud is being inserted or withdrawn. Fig. 5 is a vertical sectional view showing the parts in their normal or locking position. Fig. 6 is a sectional view taken on the line 6—6 of Fig.

5 and Fig. 7 is a view similar to Fig. 5 of a slightly modified form.

Referring to the drawings, 8 indicates the stud head, which may be of metal, pearl, or any other suitable material, and which may be of any desired configuration, and be ornamented or not, as desired, and to the back or rear side of which is secured a shank comprising a rearwardly extending portion 9 and a downwardly extending portion 10, the latter having a vertically extending slot or opening 11 formed therein and extending therethrough, as clearly shown in Figs. 3 and 4. At its lower end, the downwardly extending portion 10 is provided with a tubular portion 12, which extends between the lower end of the portion 10 and the lower end of the slot 11, as clearly shown in Figs. 4 and 5, and which is normally closed at its lower end by means of a removable plug or end piece 13, preferably pointed, as shown, whereby it may be easily inserted within the hole of the shirt without danger of tearing the material.

The plug or end piece 13 is preferably retained in position by means of a screw 14 threaded through registering openings formed in the walls of the tubular portion 12, and in the plug or end piece 13, as indicated in Figs. 4 and 5. It will of course be understood that any other suitable means may be employed to hold the plug 13 in position, without departing from the spirit of my invention.

From the above description it will be seen that when it is desired to remove the plug, for the reasons hereinafter set forth, it is simply necessary to remove the screw 14, after which the plug may be withdrawn.

Pivotally mounted within the slot 11, upon a suitable pivot 15, are the movable members 16, provided with recesses or notches 17 formed in their sides adapted to engage with the bridge or cross piece 18, extending across the slot 11, whereby to limit the outward movement of the members 16, this cross piece also serving to strengthen the slotted shank. These members are retained normally in their open or extended position, as shown in Fig. 5, by means of a wedge-shaped or pointed plug 19, slidingly located within the tubular portion 12, and held normally in its upper position by means of a suitable spring 20, one end of which rests upon the upper surface of the plug or end



piece 13, and the other end of which engages the lower surface of the movable plug 19. As stated, the spring 20 tends to hold the plug 19 in its normal or upper position, which in turn, owing to its wedge-shaped or pointed end co-acting with the lower edges of the movable members 16, will force them to assume the positions shown in Fig. 5, in which position the ends of said members will extend laterally beyond the shank of the stud.

The operation of the device will now be described: When it is desired to insert the stud within the eyelet hole of the shirt bosom, the outwardly extending ends 21 of the movable members 16, are pressed inward by the fingers, causing said members to rotate or revolve about their pivotal point until they will be entirely inclosed within the slot 11, the movable plug 19 being at the same time forced downward against the pressure of the spring 20 until it assumes its lowermost position, as shown in Fig. 4. The stud may now be inserted in the eyelet-hole from the front of the shirt bosom, the wall of said opening preventing the members 16 from being forced outward into their normally extended positions. As soon, however, as the upper ends 21 of the members 16 have passed through the eyelet hole, the spring acting upon the movable plug 19 will force it upward, throwing the members 16 outward into the positions indicated in Figs. 2 and 5, thereby effectually and automatically locking the stud in position, as any attempt to withdraw the same will be resisted by the upper ends 21 bearing upon the inner surface of the shirt bosom. When it is desired to remove the stud, it is simply necessary to again press the members together in a similar manner, after which it may be withdrawn through the eyelet-hole.

If at any time it becomes necessary in repairing the device, to apply heat thereto, the screw 14 should first be removed, after which the end plug 13, the spring 20 and the movable plug 19, may be withdrawn, thus preventing the spring from being ruined and having its spring-like qualities destroyed by the heat, which would be the case of it were not removed before the heat was applied. It will also be noted that, by reason of my improved construction, the metal at the bend 22 between the horizontal portions 9 and downwardly extending portion 10, is not cut away, and that therefore the device is not in

any way weakened at this point; on the contrary, this peculiar construction affords the maximum amount of strength at this point.

In Fig. 7, I have shown a slightly modified form, in which but one movable member 23 is employed, the remaining parts being substantially the same as those shown in Figs. 1 to 6, inclusive, and the operation of the device being also similar to that described with respect to said figures.

While I have shown my improved automatically operated locking mechanism as applied to a shirt stud or button, it will of course be understood that it may be applied to a scarf pin, or any other similar article, wherein it is desired to retain the pin or article in position and guard it from being stolen or accidentally withdrawn.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A device of the character described comprising a shank provided with a head and having a tubular portion, a locking member pivoted to said shank, yielding means co-acting with said locking member and located within said tubular portion, and removable means for retaining said yielding means in place, substantially as described.

2. A device of the character described comprising a shank provided with a head and having a tubular portion, a locking member pivoted to said shank, yielding means located within said tubular portion normally holding said locking member in its operative position, and removable means for retaining said yielding means in place, substantially as described.

3. A device of the character described comprising a shank provided with a head and having a tubular portion, a locking member pivoted to said shank, spring actuated means located within said tubular portion normally holding said locking member in its operative position, and removable means for retaining said spring actuated means in place, substantially as described.

Signed at New York, borough of Manhattan, in the county of New York, and State of New York, this 8th day of April, A. D. 1908.

JOSEPH L. HERZOG.

Witnesses:

M. VAN NORTWICK,  
G. BURGERT.