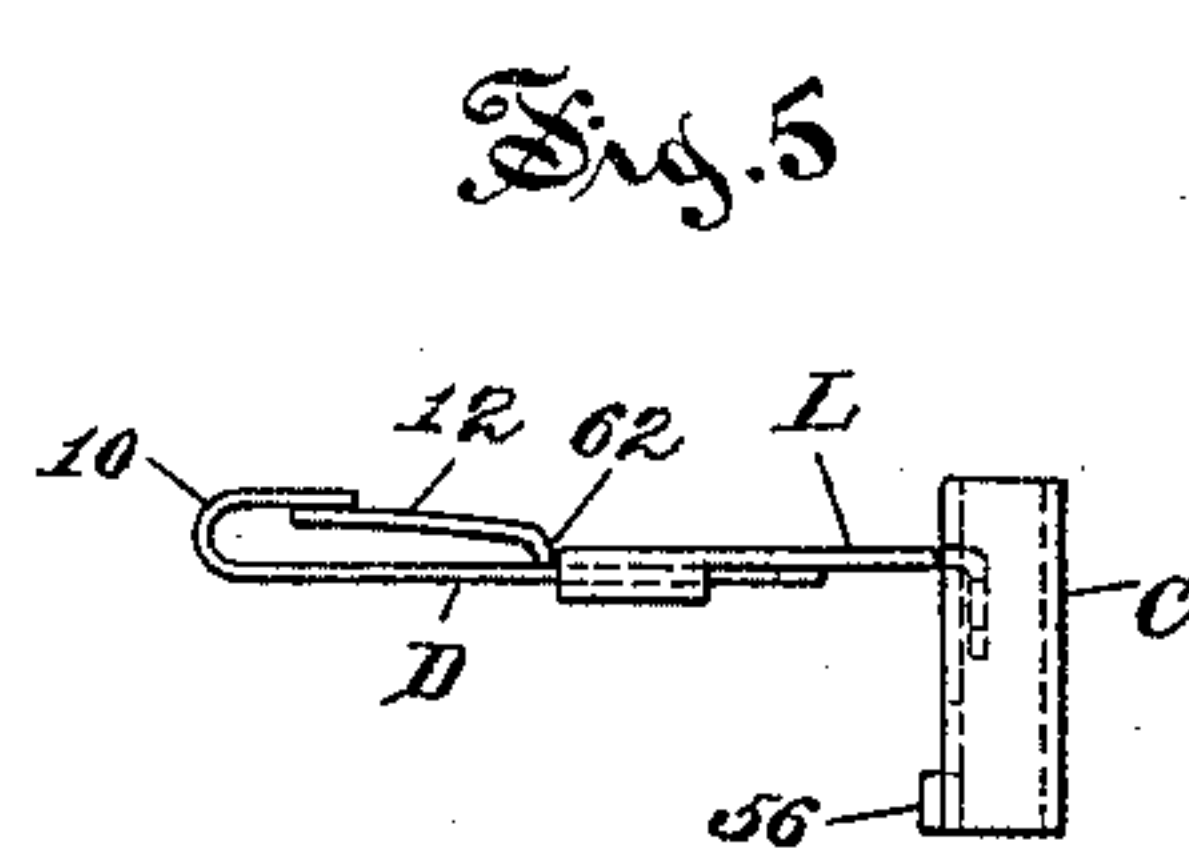
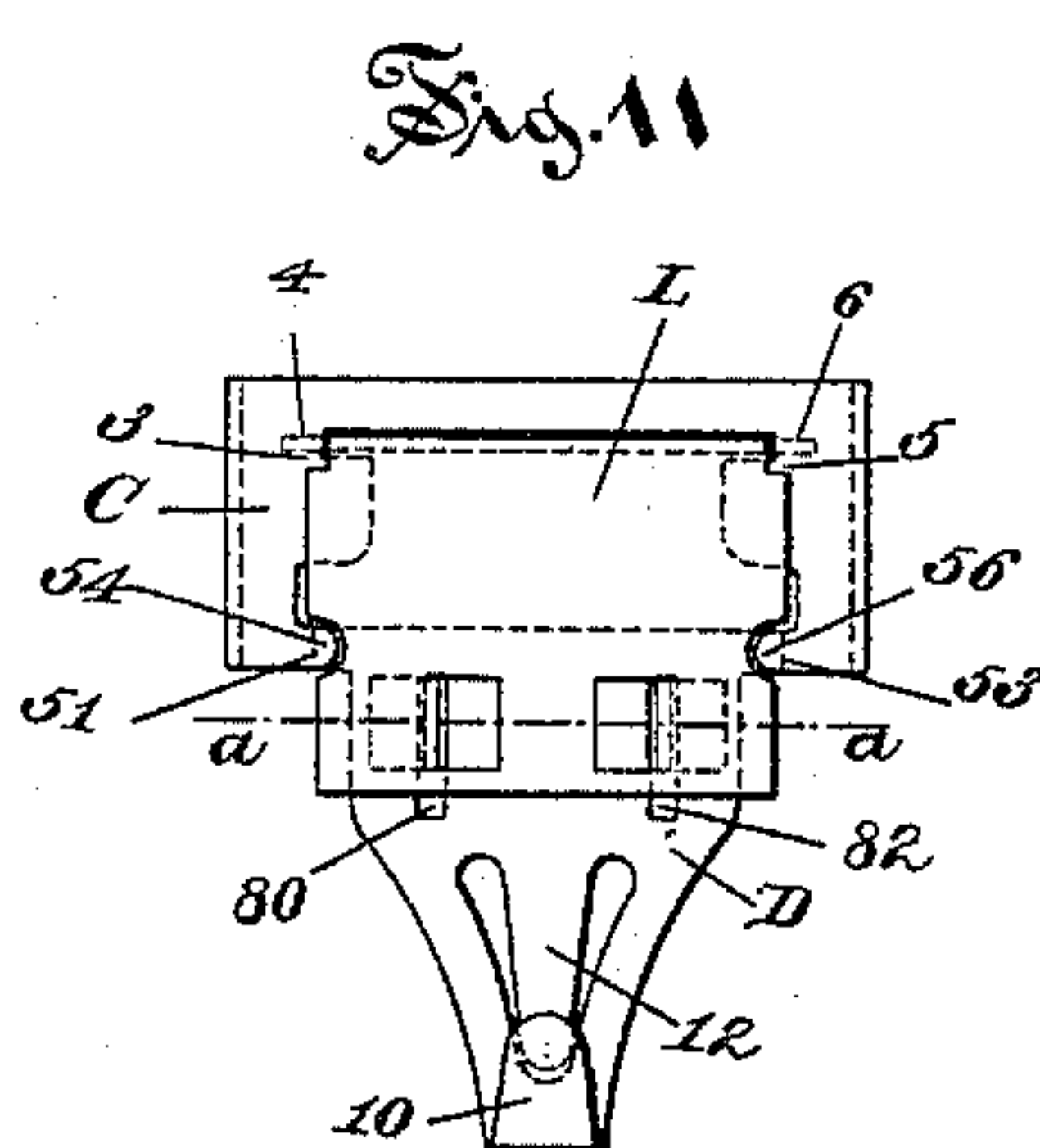
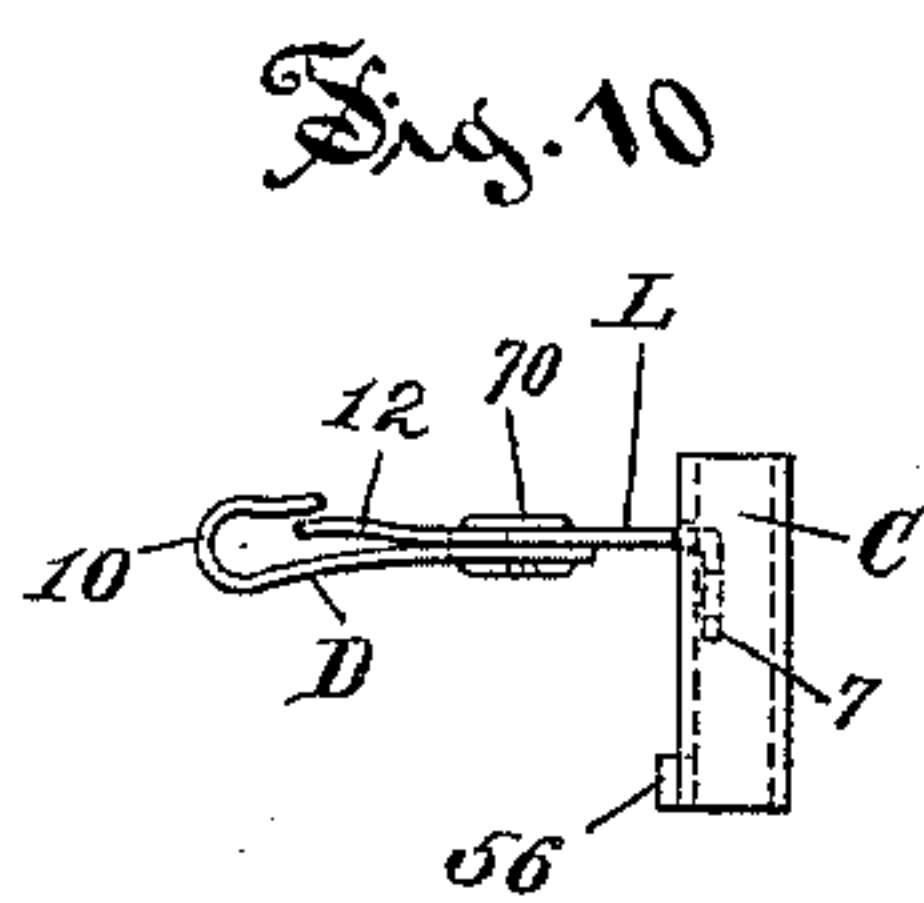
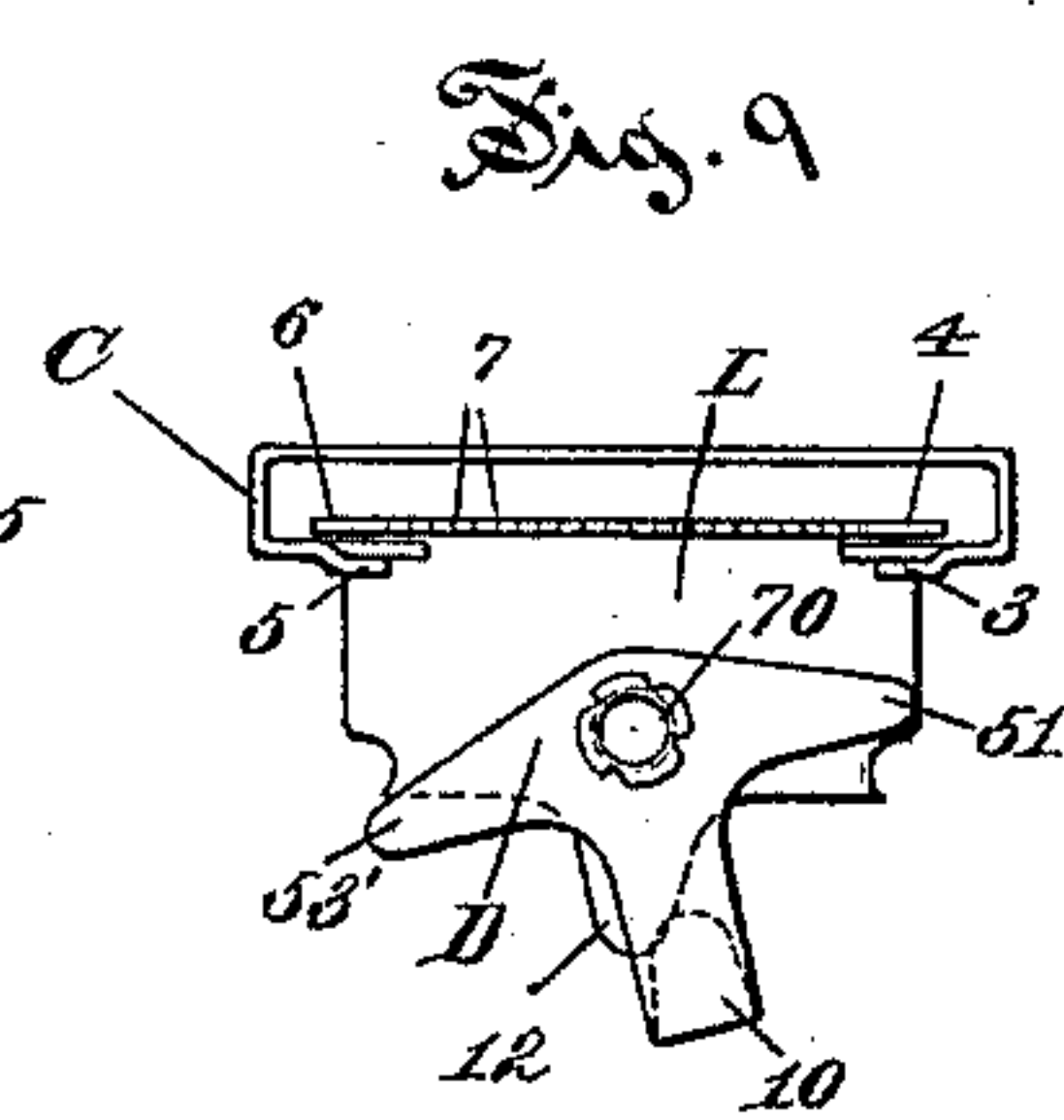
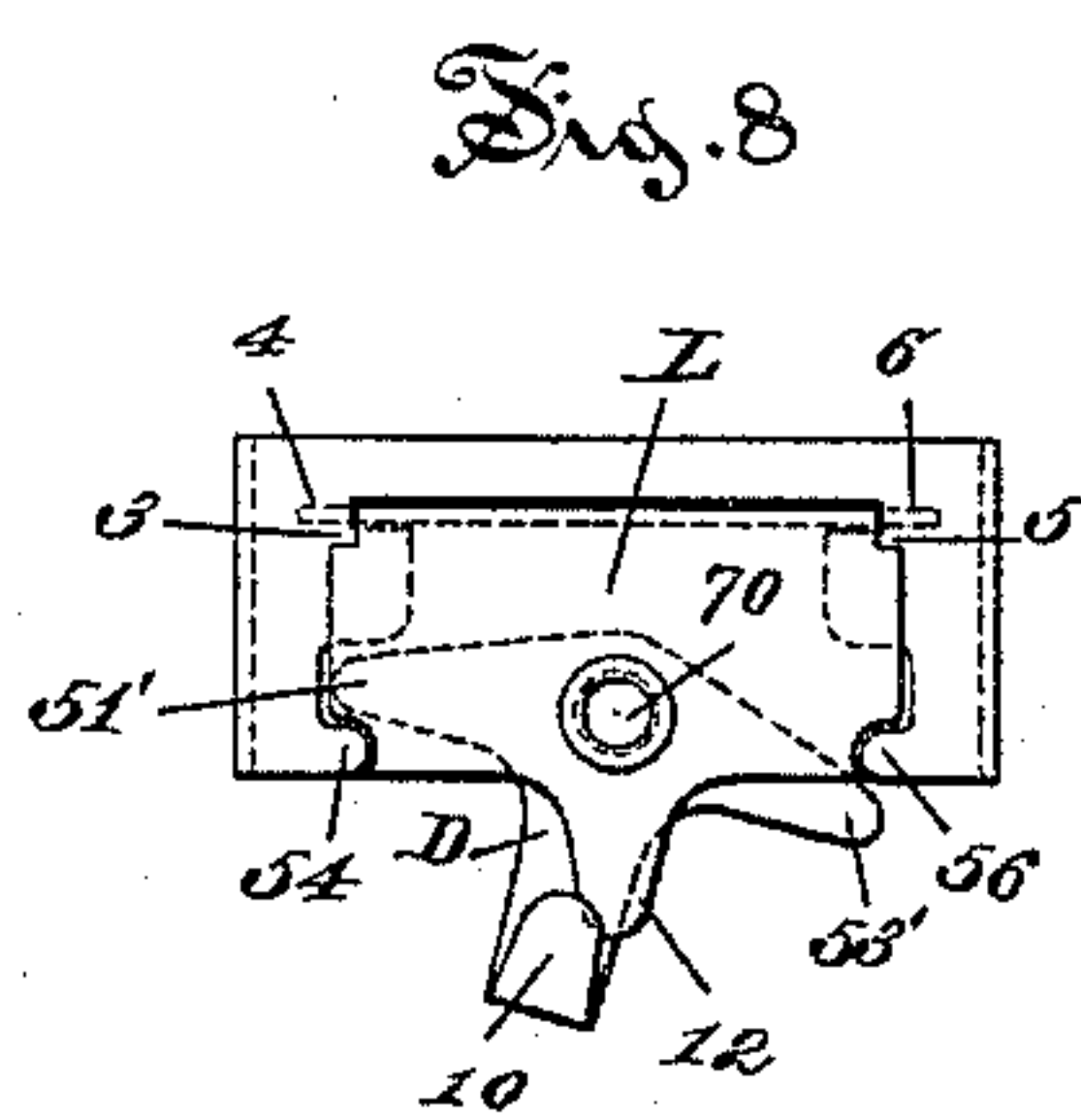
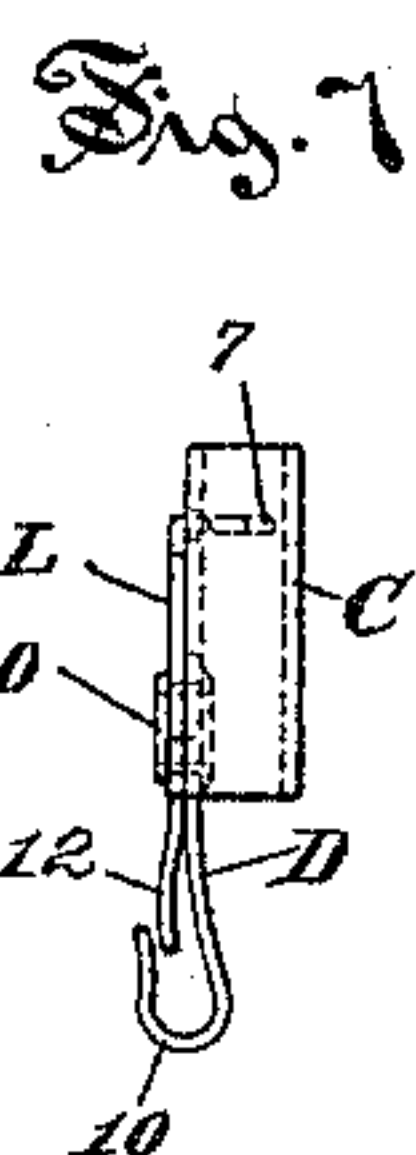
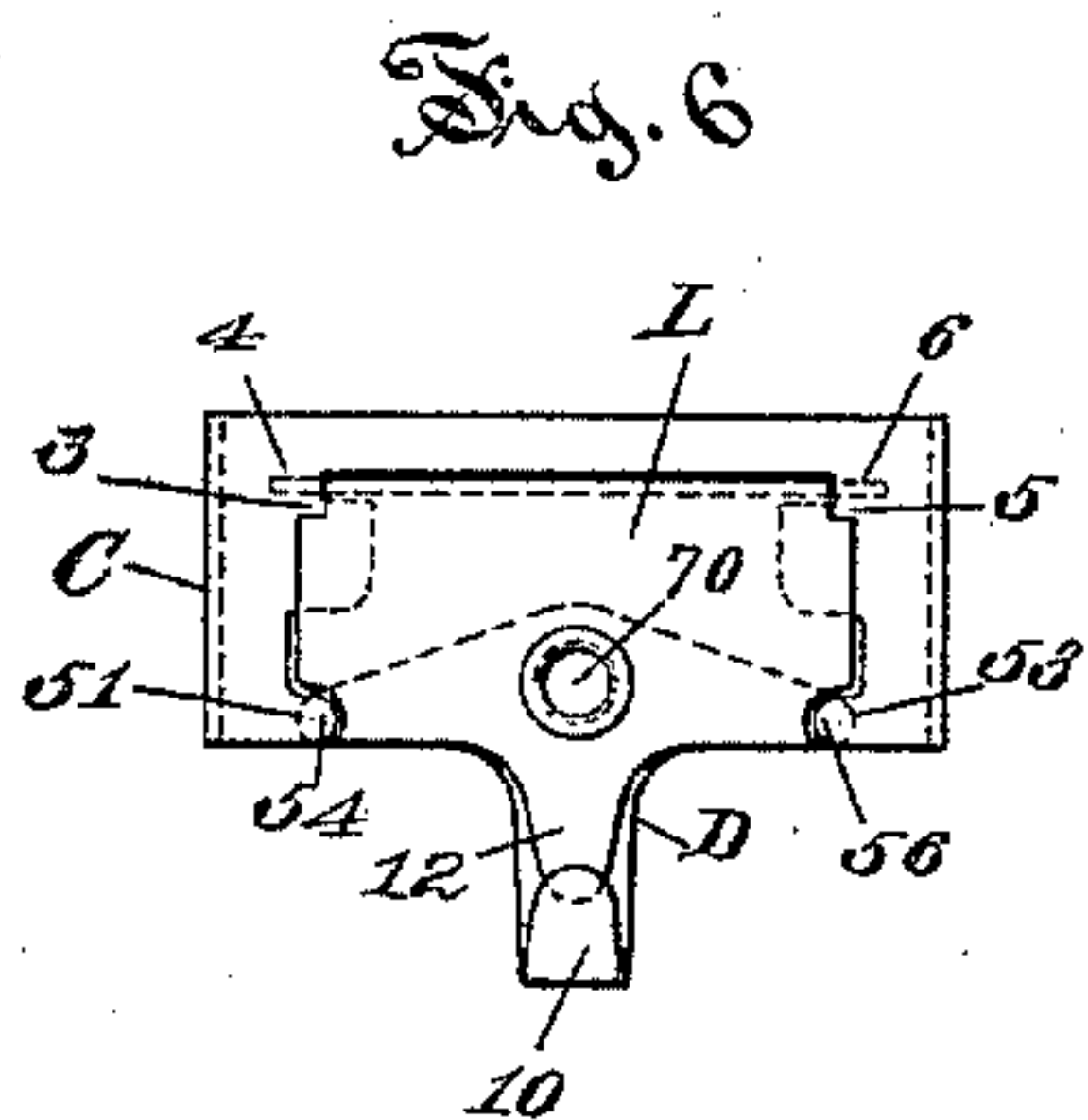
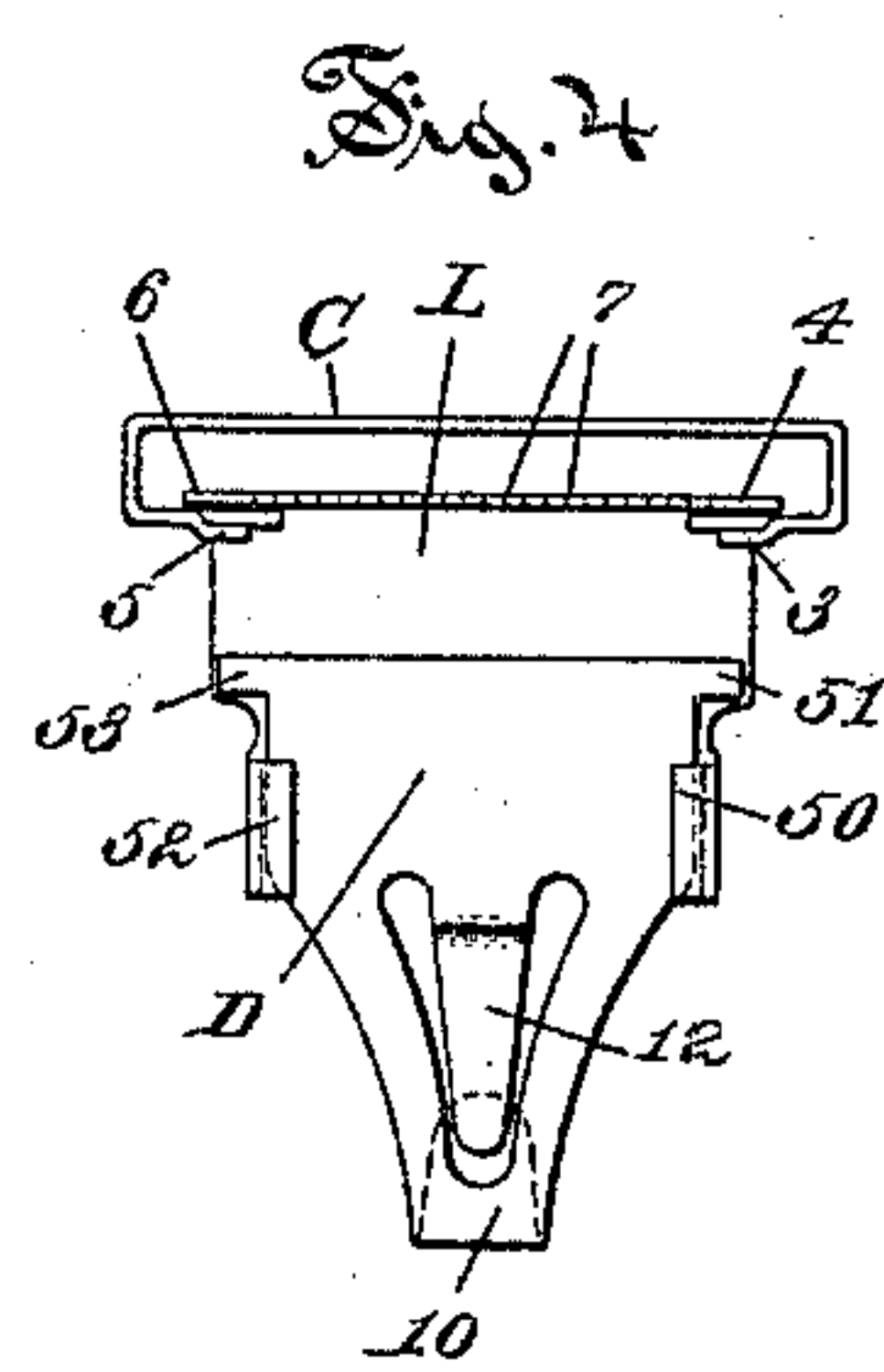
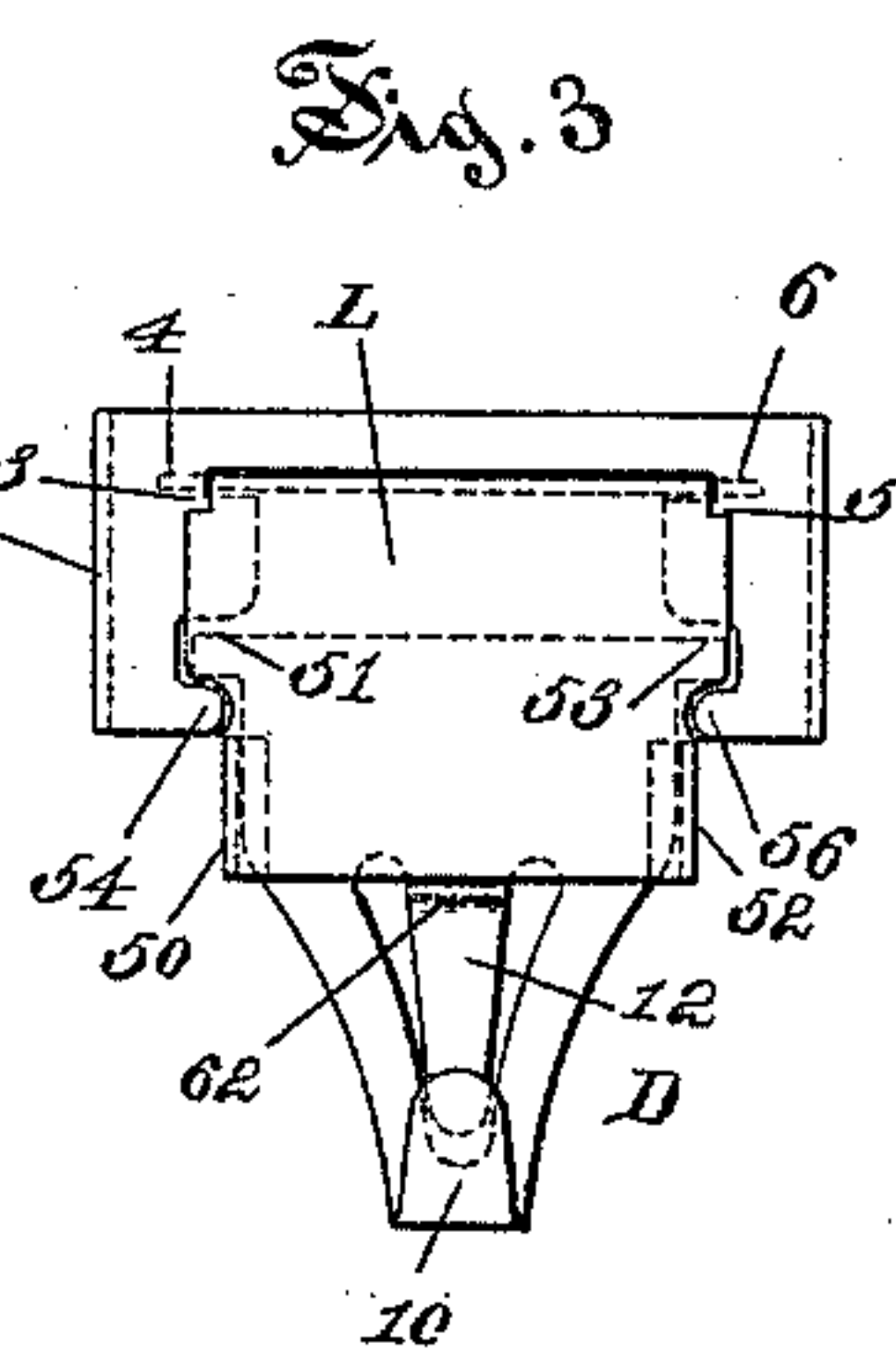
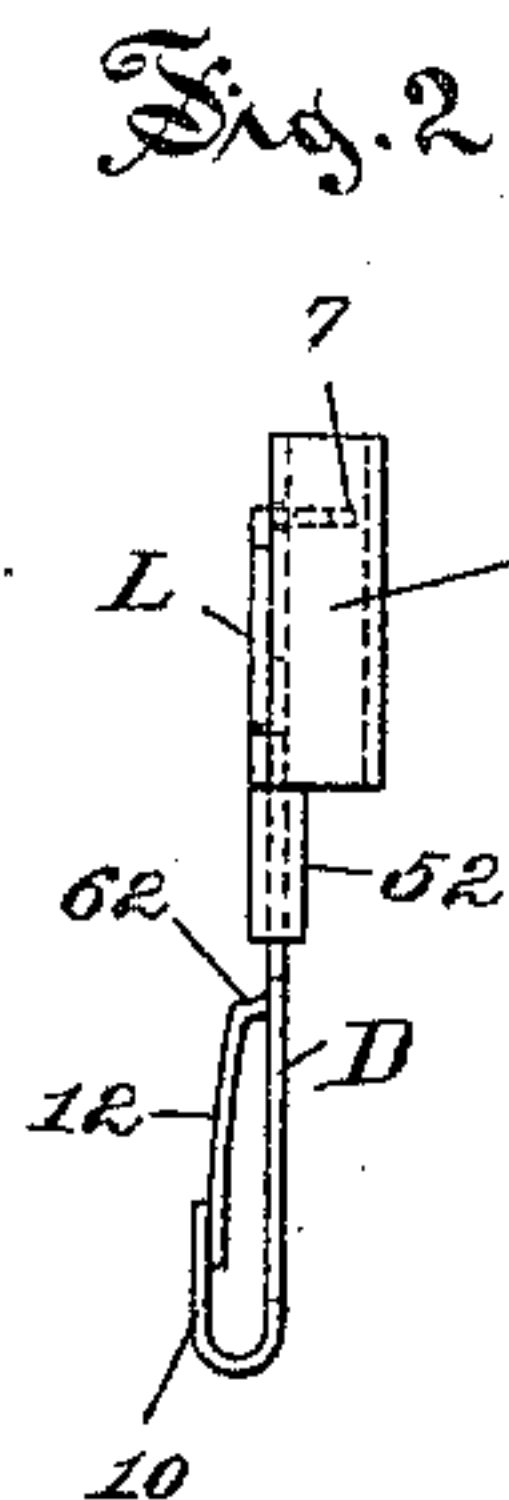
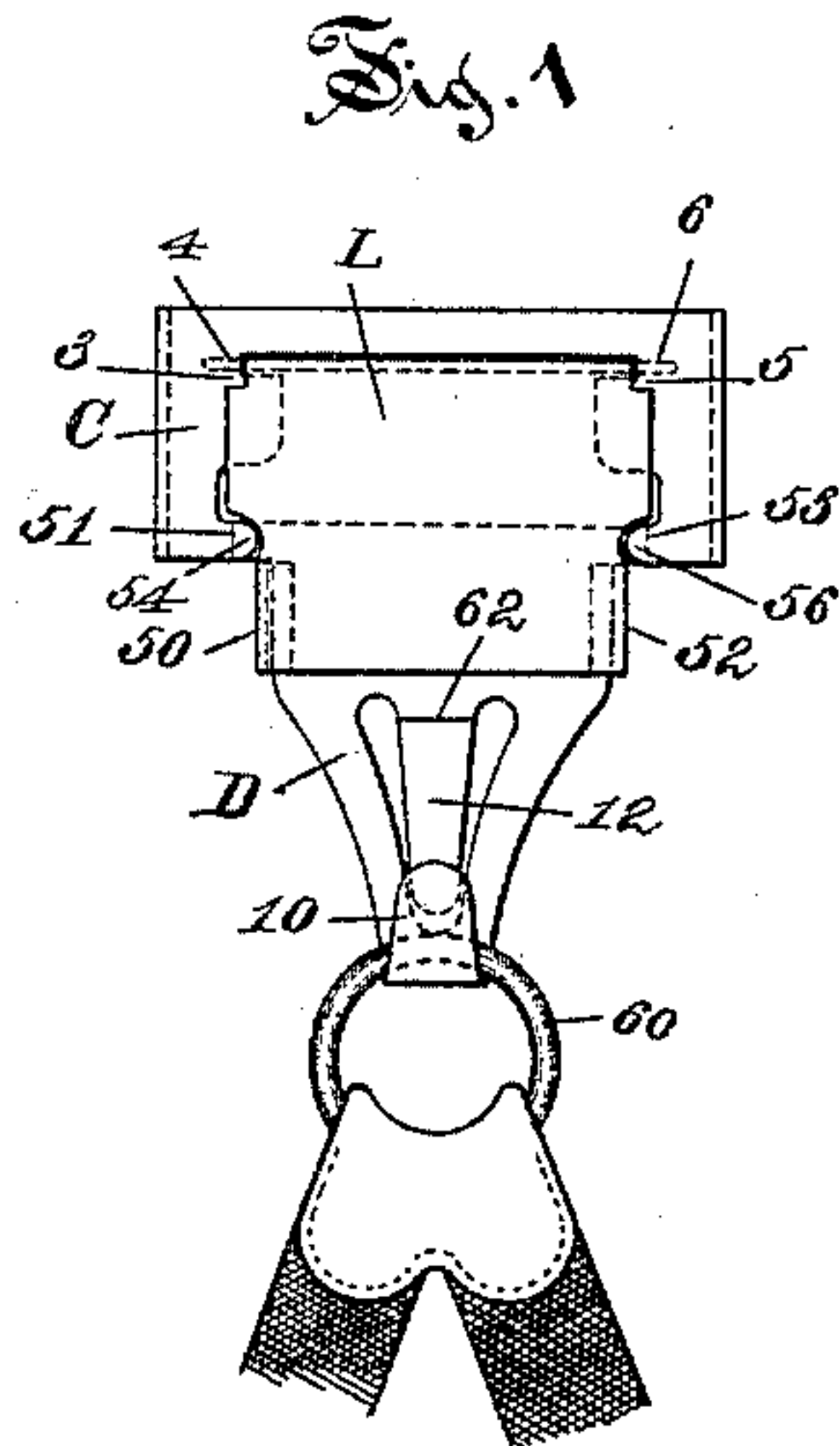


(No Model.)

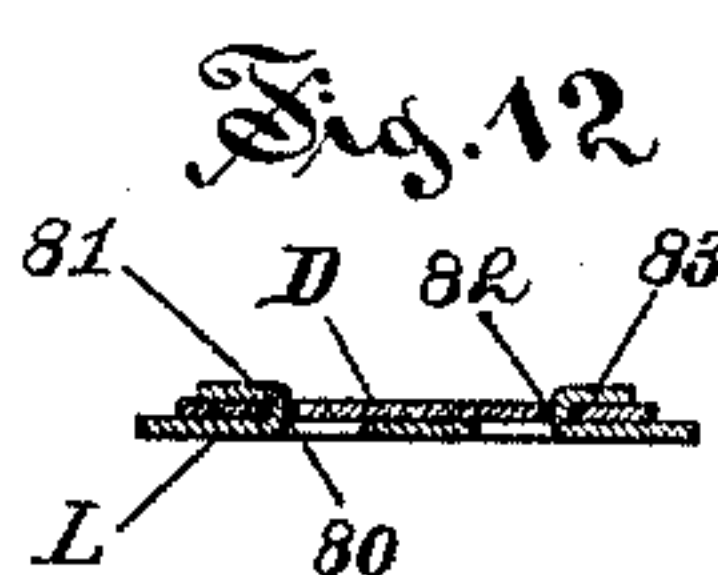
J. A. TRAUT.  
SUSPENDER BUCKLE.

No. 446,721.

Patented Feb. 17, 1891.



Witnesses:  
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Henry L. Peckard.



Inventor:  
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By his Attorney,  
F. H. Richards



# UNITED STATES PATENT OFFICE.

JUSTUS A. TRAUT, OF NEW BRITAIN, CONNECTICUT.

## SUSPENDER-BUCKLE.

SPECIFICATION forming part of Letters Patent No. 446,721, dated February 17, 1891.

Application filed August 16, 1890. Serial No. 362,235. (No model.)

*To all whom it may concern:*

Be it known that I, JUSTUS A. TRAUT, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Suspender-Buckles, of which the following is a specification.

This invention relates to buckles for suspenders, and to that class of said buckles having cast-offs, the object being to provide a buckle of that class which shall be simple in construction, cheaply manufactured, and have effective locking devices.

The modification shown in Figures 6 to 10, inclusive, is described and specifically claimed in my concurrent application, Serial No. 362,236, filed August 16, 1890.

In the drawings accompanying and forming a part of this specification, Fig. 1 is a front view of a buckle embodying my improvements and having the lock-plate arranged to be shiftable on the lever-plate by a sliding connection. Fig. 2 is an edge view of the same. Fig. 3 is a view similar to Fig. 1, showing the lever-plate unlocked by the sliding up of the lock-plate. Fig. 4 is an inverted plan view of the buckle, showing the lever-plate swung open. Fig. 5 is an edge view of the buckle as shown in Fig. 4. Fig. 6 is a view similar to Fig. 1, showing in front view a form of the buckle in which the lock-plate is shiftable on the lever-plate on a pivoted connection. Fig. 7 is an edge view of the form of buckle shown in Fig. 6. Fig. 8 is a view similar to Fig. 3, showing the lever-plate unlocked. Fig. 9 is a view similar to Fig. 4 of the second form of buckle shown with the lever-plate unlocked and swung open. Fig. 10 is an edge view of the buckle as shown in Fig. 9. Fig. 11 illustrates a modification of the buckle shown in Fig. 1. Fig. 12 is a cross-section in line *a a*, Fig. 11.

Similar characters designate like parts in all the figures.

My improved buckle consists, substantially, of a slide or "web-case" fitted to inclose and slide upon the web (not herein shown) of the suspender, a lever-plate L, pivotally secured in the said case and provided with suitable teeth, as 7, for engaging said web, and a shiftable strap-supporting lock-plate D, furnished

with means—as, for instance, the hook 10—for carrying the strap, and with locking devices, substantially as described, for engaging the corresponding parts of the web-case C for locking closed the said lever-plate. These principal features of my improvements are the same whether the structure be that shown in Figs. 1 to 5, inclusive, or if it be the form shown in Figs. 6 to 10, inclusive.

Referring to Figs. 1 to 5, inclusive, the web-case C has formed therein notches 3 and 5 for engaging the corresponding notches 4 and 6 of the lever-plate, thereby forming a well-known form of interlocking plates, forming in effect a pivoted joining together of the plates. At the sides of the lever-plate L, and at some distance from the above-described pivot, suitable catches, as 54 and 56, are provided for the purpose of engaging the shiftable lock carried on the lever-plate. This lock consists of a slide D, arranged to have a limited movement longitudinally of the buckle-plate and provided with lock-catches 51 and 53, which when the slide is down, as in Fig. 1, lie under the aforesaid slide-catches 54 and 56, and thus prevent the lever-plate from being opened; but when the slide D is raised, as in Fig. 3, said slide-catches 51 and 53 pass above the slide-catches 54 and 56, and thus permit the lever-plate to be swung forward, as in Figs. 4 and 5. When the web-case C has been unlocked and properly placed on the web, the lever L is closed, as in Fig. 2, and the lock-plate D is drawn down, bringing the catches 51 and 53 under the web-case catches 54 and 56, respectively, thus locking the lever closed and thereby fixing the web-case firmly on the suspender-web.

For carrying the suspender-straps, the lower end of the shiftable lock-plate D is provided with some suitable hook, as 10, either with or without the stop-spring 12 for preventing the accidental removal of the strap-carrying ring 60.

For limiting the sliding movement of the lock-plate D, the catches 51 and 53 respectively come down against the upper ends of the plate-guiding hooks 50 and 52, as shown in Figs. 1 and 2, while the upward movement of said plate D is or may be limited by the stop 62, formed at the upper end of the spring



12, which when said plate D is slid up strikes the lower end of the lever-plate, as shown in Fig. 3.

In the form of buckle shown in Figs. 6 to 10, inclusive, the lock-plate D is pivoted at 70 to the lever-plate and has oppositely-extending arms or catches 51' and 53', which are shiftable, as will be understood by comparison of Figs. 6, 8, and 9, so as to serve as locks for engaging under the web-case catches 54 and 56, respectively, by a swinging motion in contradistinction to the sliding movement of the plate D in Figs. 1 to 5, inclusive. As in the preceding form of buckle, the member D is furnished with some suitable means for carrying the suspender-straps—as, for instance, the hook 10 and the detent-spring 12 for supporting the strap-carrying ring. In this form of buckle on swinging the plate D, as indicated in Fig. 8, one of the catches 51' and 53' is moved down, while the opposite one is moved up, both being shifted to a position clear of the catches 54 and 56, respectively. As a means for pivotally uniting the lock-plate D to the lever-plate L, I have shown an ordinary eyelet at 70, which eyelet passes through the plates and may be fixed therein by swaging in a well-known manner.

In Figs. 11 and 12 I have shown an improvement in certain details of the form of buckle shown in Figs. 1 to 5, inclusive, which improvement resides in those features of construction whereby the sliding lock-plate is fitted and secured in place on the swinging lever-plate. This is accomplished by forming in the lock-plate two slots 80 and 82, Fig. 11, and in cutting from the lever-plate corresponding flaps, which are turned first backward and then outward, forming hooks 81 and 83, Fig. 12, thus securely holding said plates together while permitting the proper longitudinal movement of one upon the other. The mode of operating this form of buckle is the same as that of operating the form shown in said Figs. 1 to 5, inclusive, and will be readily understood without further explanation. It will be observed, however, that one advan-

tage of the modification just described is that the hooks 81 and 83, where they extend through the slots 80 and 82 of the lock-plate D, form stops positively limiting the sliding movement of the lock-plate in each direction without requiring any stop or stops especially therefor.

Having thus described my invention, I claim—

1. In a buckle, the combination, with the web-case having the oppositely-disposed catches, and the swinging lever-plate, of a shiftable strap-carrying lock-plate carried on the lever-plate and having catches arranged to engage the web-case catches on shifting the lock-plate in one direction and to disengage the same on shifting said plate in the other direction.

2. In a buckle, the combination, with the web-case and the swinging lever-plate, of the sliding strap-carrying lock-plate carried on the lever-plate and having catches arranged to engage and disengage the web-case on the sliding of the lock-plate when the lever-plate is closed.

3. In a buckle, the combination, with the web-case and with the lever-plate pivotally connected thereto, of the sliding lever lock-plate constructed for movement longitudinally of the web-case, stops limiting said movement, and catches on the lock-plate engaging and disengaging the web-case on the sliding of the lock-plate when the lever-plate is closed.

4. In a buckle, the combination, with a web-case having the oppositely-disposed catches 51 53, of the lever supported in the web-case and having the slide-guides 50 52, and the strap-carrying plate fitted to slide in said guides and having catches arranged to engage and disengage said web-case catches on the downward and upward movements, respectively, of said plate.

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Witnesses:

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