J. F. PARKER & F. A. LARSEN.

TIE CLASP.

APPLICATION FILED DEC. 13, 1915.

1,202,575. Patented Oct. 24, 1916.

Fig. 1.

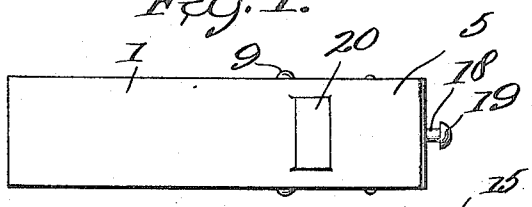


Fig. 2.

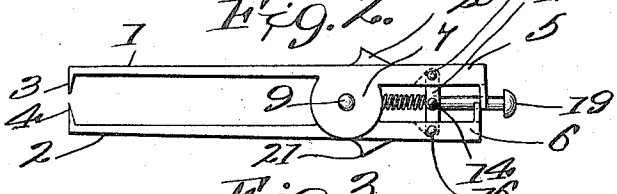


Fig. 3.

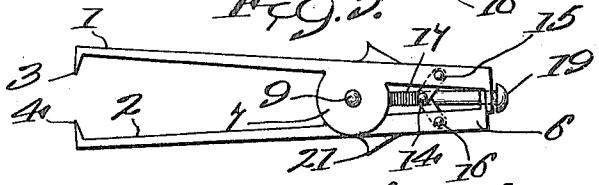


Fig. 4.

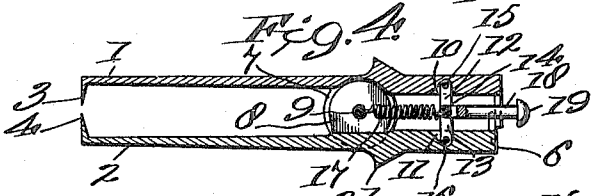


Fig. 5.

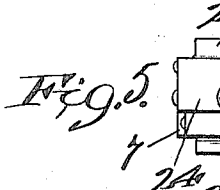


Fig. 6.

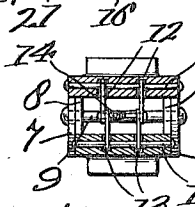
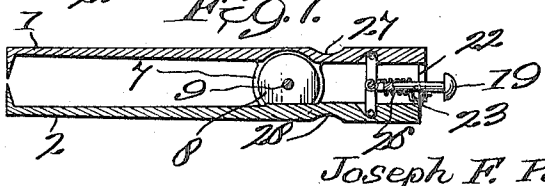


Fig. 7.



Witnesses

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TIE-CLASP.

1,202,575. Specification of Letters Patent. Patented Oct. 24, 1916.

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To all whom it may concern:

Be it known that we, JOSEPH F. PARKER and FRANCIS A. LARSEN, citizens of the United States, residing at Mobile, in the county of Mobile and State of Alabama, have invented certain new and useful Improvements in Tie-Clasps; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to improvements in tie clasps, and has for an object to provide an improved tie clasp in which the jaws will be locked when in closed position to prevent the likelihood or possibility of the device becoming accidentally detached and lost.

Heretofore devices of the above character have been made in cheap and unornamental articles, owing to the fact that the same are readily lost and cannot be securely attached in position over the tie and shirt bosom.

It is a further object of the present invention to provide a tie clasp in which the same may be constructed of precious metal highly wrought, and ornamented with precious stones; and the loss of which will be of no practical concern to the owner, as the device is equipped with an improved locking joint which is automatically moved to secure the jaws together, and may be readily detached by a thumb-operated push rod.

With these and other objects in view the invention consists in the novel details of construction and combinations of parts more fully hereinafter disclosed and particularly pointed out in the claims.

In the accompanying drawings forming a part of this application, and in which similar reference symbols indicate corresponding parts in the several views: Figure 1 is a top plan view of an improved tie clasp constructed in accordance with the present invention. Fig. 2 is a side elevational view of the same illustrating the jaws in closed position. Fig. 3 is a similar view with the jaws shown in open position. Fig. 4 is a longitudinal sectional view of the same. Fig. 5 is a rear end elevational view of the improved clasp. Fig. 6 is a transverse sectional view illustrating the form of my invention employing double toggle joints; and Fig. 7 is a longitudinal sectional view illustrating a slightly modified form of the spring means for automatically closing the improved tie clasp.

Referring more particularly to the drawings, 1 and 2 designate the jaws of the improved tie clasp, and the same are formed with toothed or serrated complemental edges 3 and 4, respectively, in the usual manner for grasping the tie and shirt bosom, as will be understood.

Extending rearwardly from the jaws 1 and 2 are the handles 5 and 6, said jaws and handles being formed with the circular or other lugs 7 and 8 perforated centrally and in registry to receive the pintle 9 upon which the parts are relatively movable and pivotally connected. The inner faces of the handles 5 and 6 are recessed, as indicated at 10 and 11, respectively, for receiving the ends of levers 12 and 13 pivotally connected together at their inner ends by a pin or bolt 14, and revolving at their outer ends and within the recesses 10 and 11 on pins or shafts 15 and 16; the parts thus described forming a toggle joint. It will be understood by reference more particularly to Fig. 6 that one or more of said toggle joints may be employed.

As disclosed to advantage in Fig. 4, the slots 10 and 11 are provided with straight vertical rear walls against which the levers 12 and 13 are adapted to abut, and which limit the rearward movement of said levers, insuring the bringing of their pivot points into alinement so as to constitute a toggle lock which may not be released except by breaking the toggle joint. The forward portions of said recesses 10 and 11 are cut away, as clearly indicated in this Fig. 4, to permit the toggle levers to be moved forwardly, as plainly illustrated in Fig. 3.

Between the pintle 9 and bolt 14 is arranged a coil spring 17 for normally tending to move the levers 12 and 13 to the rearward position shown in Fig. 4, and in opposition to this action of the spring 17 the toggle joint may be broken and the levers 12 and 13 moved to the forward position shown in Fig. 3, opening the jaws 1 and 2, by a push rod 18 connected at its inner end to the toggle center or bolt 14, and headed at its outer end, as indicated at 19, for convenient engagement by the thumb of the operator.

Finger-holds 20 and 21, adapted to be occupied by the index and second fingers, are provided on the jaws 1 and 2 or handles

5 and 6, for providing a secure grasp or purchase by the operator while the thumb is being pressed forwardly to move the push rod 18 into the position shown in Fig. 3. The push rod 18 extends through slots 22 and 23 in flanges 24 and 25 extending from the handles 5 and 6, said slots providing a guideway in which the push rod reciprocates.

Referring more particularly to Fig. 7, the automatically operating coil spring 26 is here shown coiled about the push rod 18 and connected at its opposite ends to the bolt 14 or toggle center and to the flange 25 of the lower handle 6. In this figure the finger-holds 27 and 28 are constituted by depressions formed in the handles 5 and 6, and it will be understood that these various parts may be varied and changed in a variety of different ways.

In operation, the device in the position shown in Fig. 2 is grasped in the hand with the index and second fingers, engaging the finger-holds 20 and 21 or 27 and 28, as the case may be, and the thumb brought over the head 19 of the push rod 18. By pressure of the thumb on the head 19 the push rod may be moved inwardly, as shown in Fig. 3, breaking the toggle joint and moving the levers 12 and 13 to collapse and bring together the handles 5 and 6, thus opening the jaws 1 and 2. In this position the clasp is inserted over the tie and shirt bosom and the thumb thereupon released. The spring 17 or 23, accordingly as one or the other of the modifications shown is used, will thereupon operate to return the levers 12 and 13 to initial position, moving the handles 5 and 6 apart and bring the jaws 1 and 2 to closed position. The levers 12 and 13 will thus be moved rearwardly until encountering the rear straight walls of the slots 10 and 11, which will prevent further movement thereof, and will insure the arrival of the pins 15 and 16 in alinement with the center pivot bolt 14, and the joint will be locked and prevented from breaking or opening by any external force applied to the jaws 1 and 2 or handles 5 and 6. When the device is to be detached and removed, the device is again grasped in the manner above described and the push rod 18 forced inwardly to break the joint and spread the jaws 1 and 2, when it will be readily seen that disengagement of the same may be immediately had.

It is obvious that those skilled in the art may vary the details of construction and arrangements of parts without departing from the spirit of our invention, and therefore we do not wish to be limited to such features except as may be required by the claims.

We claim:

1. A tie clasp including relatively movable jaws, handles extending from said jaws, finger-holds on said jaws and handles, a plurality of interconnected toggle levers interposed between said handles, spring means for normally moving said toggle levers to position with their pivots in alinement to close and lock the jaws, and a pivoted push rod connected to open said levers in opposition to said spring means, substantially as described.

2. A tie clasp including relatively movable jaws, handles projecting from said jaws, slotted flanges on said handles, levers connected between said handles, a push rod slidable through the slots in said flanges and in engagement to operate the levers to open said jaws, and spring means associated with said levers for returning the jaws to closed position, substantially as described.

3. A tie clasp including pivoted jaws, handles on said jaws having recesses therein, levers pivoted in said recesses and connected together, a push rod for operating said levers to open the jaws, spring means for returning said levers to close the jaws, and depressed portions in said clasp for receiving the fingers of the operator, substantially as described.

4. A tie clasp including pivoted jaws, handles on said jaws having recesses therein formed with abrupt rear walls, a toggle joint having its ends pivoted in said recesses, slotted flanges on said jaws, a push rod slidable through the slots in said flanges and connected to operate said toggle joint to open the jaws, a spring for automatically returning said toggle joint to position engaging the abrupt rear walls of said recesses whereby the jaws are returned to closed position, and depressed portions in said clasp for receiving the operator's fingers, substantially as described.

In testimony whereof, we affix our signatures.

JOSEPH F. PARKER.
FRANCIS A. LARSEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."