(No Model.)

F. E. RANDALL.

GARMENT CLASP.

No. 352,778. Patented Nov. 16, 1886.

Fig: 1.

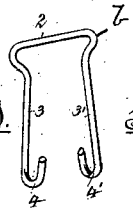


Fig: 2.

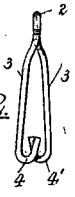


Fig: 3.

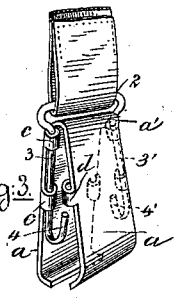


Fig: 4.

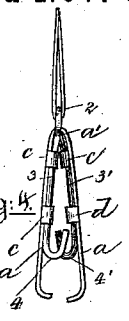


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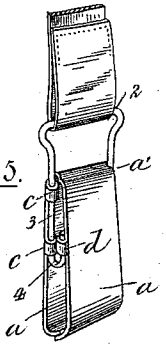


Fig: 6.

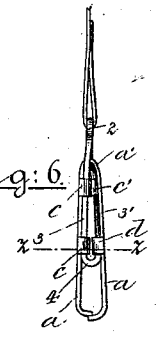


Fig: 7.

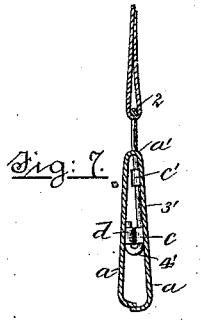


Fig: 13.

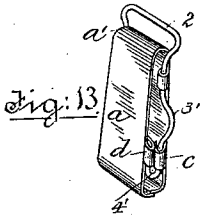


Fig: 6ª.

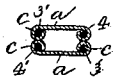


Fig: 12.

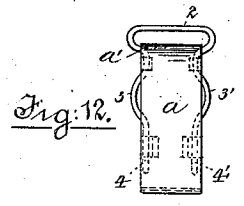


Fig: 14.

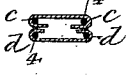


Fig: 8.

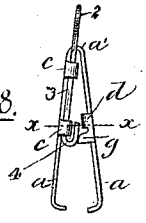


Fig: 9.

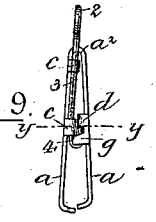


Fig: 10.

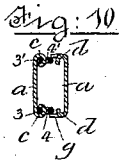
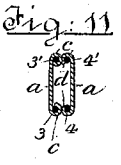


Fig: 11.



Witnesses:
John A. Rennie.
H. Brown.

Inventor,
Frederick E. Randall.
By Wright, Brown & Crossley.
Attys.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

FREDERICK E. RANDALL, OF BOSTON, MASSACHUSETTS.

GARMENT-CLASP.

SPECIFICATION forming part of Letters Patent No. 352,778, dated November 16, 1886.

Application filed July 22, 1886. Serial No. 208,704. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK E. RANDALL, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Clasps, of which the following is a specification.

This invention relates to garment-supporting clasps adapted to be supported by a strap and to firmly grasp and hold stockings and other garments; and it has for its object to provide a clasp of this class in which the devices for positively locking the jaws or parts of the clasp shall be wholly within or between said jaws, so that the exterior of the clasp will be smooth and devoid of protuberances, such as would be caused by external locking devices.

To this end the invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a perspective view of a part of my improved clasp. Fig. 2 represents an edge view of said part. Fig. 3 represents a perspective view of the clasp opened. Fig. 4 represents an edge view of the clasp opened. Fig. 5 represents a perspective view of the clasp closed. Fig. 6 represents an edge view of the clasp closed. Fig. 6ª represents a section on line *z z*, Fig. 6. Fig. 7 represents a longitudinal section of the clasp closed. Figs. 8 and 9 represent edge views of a modification. Fig. 10 represents a section on line *x x*, Fig. 8. Fig. 11 represents a section on line *y y*, Fig. 9. Figs. 12, 13, and 14 represent another modification.

The same letters of reference indicate the same parts in all the figures.

In carrying out my invention I construct a clasp having two sides or jaws, *a a*, both preferably formed from a single piece of metal, the jaws being connected by a loop or neck, *a'*. The jaws normally spring apart or stand open, as shown in Figs. 3 and 4, and are bent inwardly at their grasping ends, or are otherwise formed to suitably engage with the garment to be supported.

b represents a loop composed of a piece of wire bent to form a bar, 2, to receive the supporting-strap, two arms, 3 3', extending from the opposite ends of said bar, and two hooks, 4 4', formed on the ends of said arms.

On the inner sides of the jaws *a a* are formed eyes *c c*, *c c*, through which the arms 3 3' pass, and in which they are adapted to slide. In the construction shown in Figs. 1 to 7, inclusive, the arms 3 3' stand at different angles, as best shown in Figs. 1 and 2, so that the arm 3 conforms to the normal position of one of the jaws and passes through the eyes *c c* thereof, while the arm 3' conforms to the normal position of the opposite jaw and passes through the eyes *c c* of the latter. The wire loop therefore serves as a spring to separate or assist in separating the jaws *a a*.

d d represent eyes affixed to the inner sides of the jaws *a a* opposite the lower eyes *c c*, and adapted to receive the hooks 4 4' when the jaws are pressed together and the loop *b* is moved upwardly in the eyes *c c*, as shown in Figs. 5, 6, and 7. The eye *d* of one jaw is placed so as to receive the hook 4, while the eye *d* of the other jaw is placed in position to receive the hook 4'.

From the foregoing it will be seen that by placing a part of the garment to be supported between the open jaws *a a*, then pressing the jaws together, and then drawing the loop *b* upwardly, the hooks 4 4' will be caused to enter the eyes *d d*, and thus lock the jaws positively in their closed position, so that the jaws cannot be separated until the loop *b* is pushed downwardly and its hooks are thus removed from the eyes *d d*. It will also be seen that, as the strain of the supported garment tends to pull the jaws *a a* downwardly on the loop *b*, there is no liability of said loop slipping downwardly and thus releasing the jaws by accident.

In Figs. 8 to 11, inclusive, I have shown a modification in which the eyes *c c*, *c c*, that receive the arms 3 3' of the loop, are all formed on one of the jaws *a*, while the eyes *d d*, which receive the hooks 4 4', are formed on the opposite jaw, so that the loop does not act as a spring to aid in opening the jaws. In this modification the eyes *d d* are left open at their inner sides, as shown in Fig. 10, and are so arranged relatively to the hooks 4 4' that when the loop is in the position shown in Fig. 8 and the jaws are pressed together said hooks will yield laterally to the pressure of the eyes *d d* until they spring into said eyes, as shown in Figs. 9 and 11, the engagement being effected wholly by inward pressure on the jaws. The

jaws are released by sliding the loop downwardly, as in the first-described construction, until the hooks are withdrawn from the eyes *d d*.

To prevent the part of the garment inserted between the jaws from getting between the hooks 4 4′ and eyes *d d*, and thus preventing the engagement of said parts, I provide in the clasp shown in Figs. 8 and 9 guards *g g*, which are lips formed on one of the jaws below the eyes *d d* and bent inwardly partly across the space between the jaws, said lips nearly meeting the lower portions of the hooks 4 4′. In the clasp shown in Figs. 3, 4, 5, 6, and 7 the same function is performed entirely by the lower portions of the hooks 4 4′, said hooks projecting inwardly, one from each jaw, as best shown in Fig. 4.

It will be observed that in both of the above-described constructions the locking devices are entirely within or between the jaws, and the exterior of the clasp is smooth and free from wearing angles or projections, such as would be caused by locking devices wholly or partly outside of the jaws.

Figs. 12, 13, and 14 show a modification in which the wire loop is not adapted to slide, but is curved outwardly, so as to project somewhat outside of the edges of the clasp, and adapted to have its hooked ends pressed inwardly by the thumb and finger of the operator to disengage the hooks from the eyes *d d*, said eyes being made as shown in Figs. 10 and 11. The lower eyes, *c c*, are open at their inner side, so that the arms can be sprung inwardly out of said lower eyes. The jaws are locked by pressing them together, the hooks yielding laterally and snapping into the open eyes *d d*. The jaws may be unlocked by pressing inwardly on the outwardly-projecting portions of the loop until the hooks are forced out of the eyes *d d*.

I am aware that springs which normally hold the jaws closed have been placed between and wholly covered by the jaws; but such springs do not lock the jaws positively.

I claim—

1. In a clasp, the combination of two jaws, *a a*, and a hook and loop located on the inner side of said jaws *a a*, as described, between and covered by the latter, the said hook being adapted to engage the loop and rigidly lock the other jaw *a* when the said jaws are pressed into contact, substantially as set forth.

2. In a clasp, the combination of two jaws, *a a*, a hook and loop located on the inner side of said jaws *a a*, as described, between and covered by the latter, the said hook being adapted to engage the loop and rigidly lock the other jaw *a* when the said jaws are pressed into contact, and a strap-holding cross-bar connected to said hook, substantially as set forth.

3. In a clasp, the combination of two jaws adapted to have their biting portions pressed into contact to grasp the garment, eyes *c*, located on the inner side of one jaw, and eyes *d*, located on the inner side of the other jaw, and a loop formed to receive a supporting-strap and adapted to slide in the eyes *c*, and provided with a hook to engage the eye *d* to rigidly lock the jaws when they have been pressed into contact, substantially as set forth.

4. In a clasp, the combination of two grasping-jaws, each having eyes *c* and *d* on its inner side, and the wire loop composed of the cross-bar 2, adapted to receive a supporting-strap, the arms 3 3′, inserted in the eyes *c* and normally standing at different angles, whereby the loop is caused to act as a spring, and provided with hooks adapted to engage the eyes *d d*, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 17th day of July, 1886.

FREDERICK E. RANDALL.

Witnesses:
C. F. BROWN,
ARTHUR W. CROSSLEY.