(No Model.)

DE WITT C. COLE.

CORSET CLASP.

No. 439,385. Patented Oct. 28, 1890.

Fig. 1.

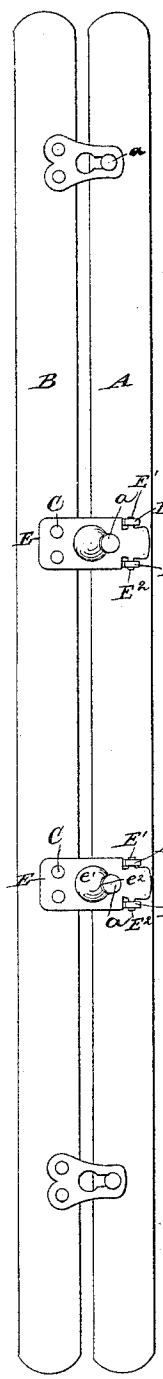


Fig. 4.

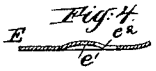


Fig. 3.

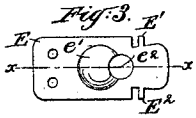


Fig. 5.

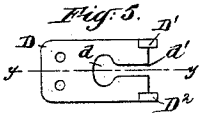


Fig. 6.

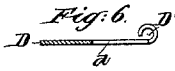


Fig. 2.

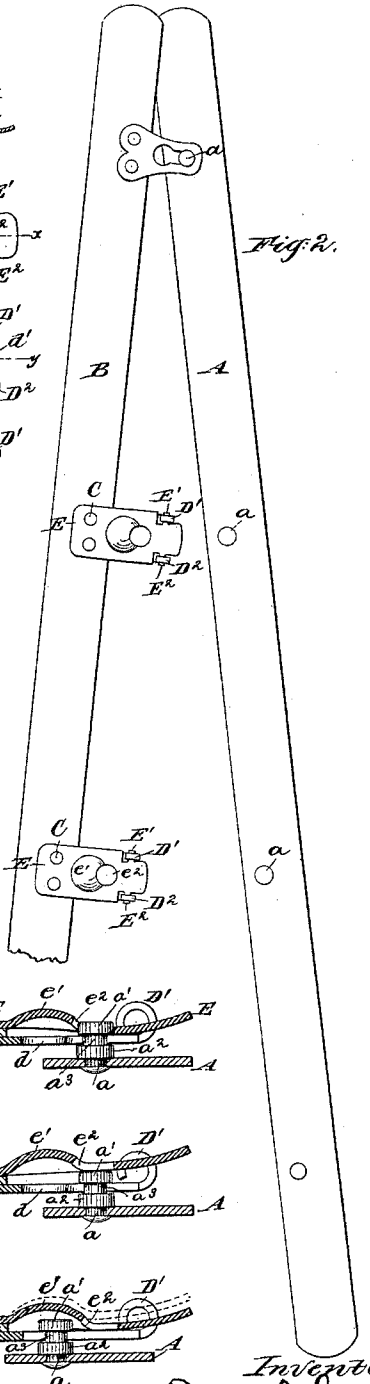
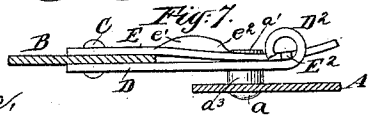


Fig. 8.

Fig. 9.

Fig. 10.

Fig. 7.



Witnesses:
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by his attorney
Thomas Drew Stetson

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

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CORSET-CLASP.

SPECIFICATION forming part of Letters Patent No. 439,385, dated October 28, 1890.

Application filed July 15, 1890. Serial No. 358,819. (No model.)

To all whom it may concern:

Be it known that I, DE WITT C. COLE, a citizen of the United States, residing in the city and county of New York, in the State of New York, have invented a certain new and useful Improvement in Corset-Fastenings, of which the following is a specification.

The invention applies, as usual, on steels which extend up and down the front edges of the two sides of the corset. There may be the ordinary lacings at the back, the length of which is adjusted with care to adapt the corset to the size of the wearer.

My improved fastening may be used in the same places and in the same number as the ordinary fasteners heretofore employed. I prefer to use the ordinary fastenings at the top and bottom of the series and to apply my invention at the intermediate points, using as many as may be desired. I have in my experiments used only two of the fasteners on a corset of ordinary length. A description of one will serve for both or all. Each fastener employs two plates superposed and riveted upon the same steel. The front or outermost of these plates is elastic. This front elastic plate has a circular hole adapted to receive and retain the head of the post. The non-elastic back plate has a slot with its inner end sufficiently enlarged to receive the head of the post, which is inserted from within in the ordinary manner, the slot extending from such enlargement completely out to the edge of the plate, so that, except for other means of confining it, the post would be allowed to escape immediately from the fastening. The elastic plate in front is the real fastener. To secure the fastening, the post is forcibly inserted from within the inner or back side in the ordinary manner, and it is allowed to slide outward along the slot. It thus moves outward until the head of the post is presented under the hole in the elastic front plate, which plate then snaps inward and engages and holds it. To detach the fastener, it is required to pull outward or forward the elastic front plate, which is easily effected by engaging the finger under a smoothly-rounded end adapted for the purpose, and the post then moves freely outward through the slot in the back plate and escapes.

My fastener affords more than the usual facility for easily securing the corset and rapidly disengaging the fastenings when the corset is to be removed. The corset is held reliably, except when intentionally detached.

In what I esteem the most complete form of the invention I slightly dome the elastic front plate at the point where the post is thrust forward and outward against it, so that the post can be fully received into position ready for engagement without requiring the front plate to be lifted. After the post is thus inserted to the full extent it may be moved outward into the slot in the back plate, and after its neck is fairly engaged with the slot in the back plate the head strikes the concave surface on the under side of the elastic front plate and the outward motion of the post lifts the front plate without requiring any thrusting force to be imparted to the post to effect this end. Thus conditioned the farther movement of the post outward results in presenting the head of the post under the hole in the elastic front plate, which plate then snaps down and locks it until it is intentionally lifted up, after which the post will be free to move outward and escape through the open slot in the back plate. I provide means for preventing the elastic front plates from being ever sprung forward by any force received accidentally or otherwise so as to injure them.

The accompanying drawings form a part of this specification and represent what I consider the best means of carrying out the invention.

Figure 1 is a front view. Fig. 2 is a corresponding view showing the steels partially separated. Fig. 3 is a face view of a portion detached. Fig. 4 is a section on the line $x\ x$ in Fig. 3. Fig. 5 is a face view of another portion. Fig. 6 is a section on the line $y\ y$ in Fig. 5. The remaining figures are on a larger scale. Fig. 7 is a side elevation of the fastener or clasp, the steels being shown in section. Figs. 8, 9, and 10 are sections showing the clasp in different conditions. Fig. 8 shows the parts engaged. Fig. 9 shows the parts in condition to be disengaged, and Fig. 10 shows the parts in condition for engagement.

Similar letters of reference indicate corresponding parts in all the figures where they appear.

A and B are the ordinary steels, which extend up and down the front, secured by sewing or otherwise, one to each half of the corset. The right steel A carries posts a, each having a head a' and a collar a^2, with an annular recess or neck a^3, of less diameter, between.

The left steel B receives rivets C, which secure back-plates D, having each a hole d of sufficient size to receive the head of a post A. A slot d', sufficiently wide to carry the neck of the post, extends from such hole quite out to the edge of the plate D. What I have here termed the "hole" d may be considered, simply, as an enlargement of the inner end of the open slot d'. The same rivets C also confine elastic front plates E, each of which coincides, mainly, with the back plate D, but extends out a little farther and presents a smoothly-rounded end. At each of the outer corners of the front plate E is a lug marked E′ E², respectively, which are received in eyes D′ D², formed in the corresponding part of the back plate D. The eyes are so much larger than the lugs that there is room for considerable play of the elastic part E outward and inward. Near the middle of the plate E, and directly over or coincident with the hole d, is a flattish dome or concavo-convex portion e'. A hole e^2 is punched or otherwise produced in the plate E adjacent to this dome, somewhat encroaching upon it, as shown. To fasten the corset, the parts are brought together and the head a' is thrust through the hole d from the back, rising in the interior of the dome e', and being allowed to move laterally by the natural expansion of the corset it raises the spring-plate E. So soon as this has risen to a small extent the post $a\ a'$ is free to traverse outward in the slot d', and it does so until the head a' coincides with the hole e^2. When this point is reached, the spring-plate E snaps down again into its original position, and now it arrests the outward motion of the post $a\ a'$ and also prevents its return motion. It reliably holds the fastening by inclosing the head a' within the aperture e^2. The fastening in this condition holds the post firmly locked. It will resist any force tending to urge it in any direction. The several fastenings are thus secured with great ease and rapidity, and they remain locked for so long a time as the wearer shall elect. When she desires to remove the corset, she inserts a finger under the smoothly-rounded end of the spring-plate E, where it extends beyond the more rigid plate D, and presses the spring-plate outward or forward. When the spring-plate E is pressed outward sufficiently to go out of contact with the post $a\ a'$, the latter is free to move outward through the slot d' and the fastening is detached. There is sufficient play allowed the lugs E′ E² within the eyes D′ D² to allow the proper amount of deflection of the spring-plate E; but so soon as the proper amount of deflection to release the post is reached the lugs strike the interiors of the eyes D′ D² and forbid the spring-plate from being deflected outward any farther. The eyes perform an important function in thus preventing the spring-plate E from being ever forced outward too far under any conditions so as to strain and permanently distort it. The length of the neck or contracted portion a^3 of the post is only a little greater than the thickness of the rigid plate D. The collar a^2 performs an important function in preventing the post from moving too far upward or forward.

Modifications may be made by any good mechanic without departing from the principle or sacrificing the advantages of the invention.

I can fasten the spring-plates E to the steel B by other means than the rivets C shown. It is sufficient that the plates D and E be held with sufficient strength and so as to allow the spring-plate E to be thrown by its elasticity into the position to lock with the head a' of the post and to allow it to be sprung outward by such force as can be easily given by the finger or thumb to release the fastening.

I claim as my invention—

1. In combination with the steels of a corset, the fastening device consisting of the post carried by one steel, and the plates D and E, superposed and affixed to the other steel, said plate D having the open-ended slot d', enlarged at its rear end to admit the head of the post, and said plate E being flexible and having aperture e^2 to receive and retain said post-head, the whole being so arranged that by raising or deflecting said flexible plate E the post can be withdrawn through the front end of the open slot in said plate D, substantially as specified.

2. In a corset-fastener, the combination, with the steels, of the plate D, having the open-ended slot and eyes D′ D², the superposed spring-plate E, having aperture e^2 and lugs E′ E² arranged to have limited play in said eyes, and the post with its neck adapted to closely fit said slot and its head to be retained in said aperture until released by the deflection of the spring-plate, substantially as and for the purpose specified.

3. In a corset-fastener, the post a, having a recess a^3 between the head a' and collar or shoulder a^2 to receive the slotted plate D, in combination therewith and with the spring-plate E and the steels A B, arranged for joint operation, substantially as herein specified.

In testimony that I claim the invention above set forth, I affix my signature in presence of two witnesses.

DE WITT C. COLE.

Witnesses:
CHARLES R. SEARLE,
H. A. JOHNSTONE.