(No Model.)

F. B. SPOONER.

CLASP.

No. 401,977. Patented Apr. 23, 1889.

Fig. 1.

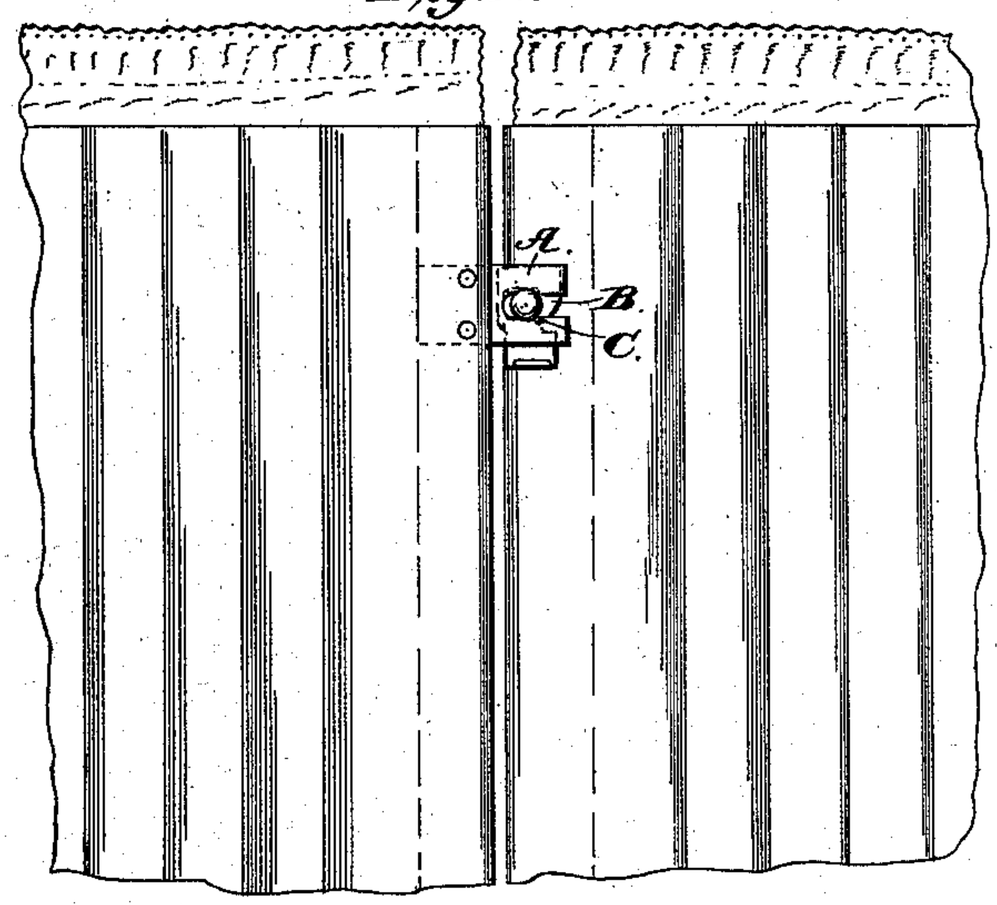


Fig. 4.

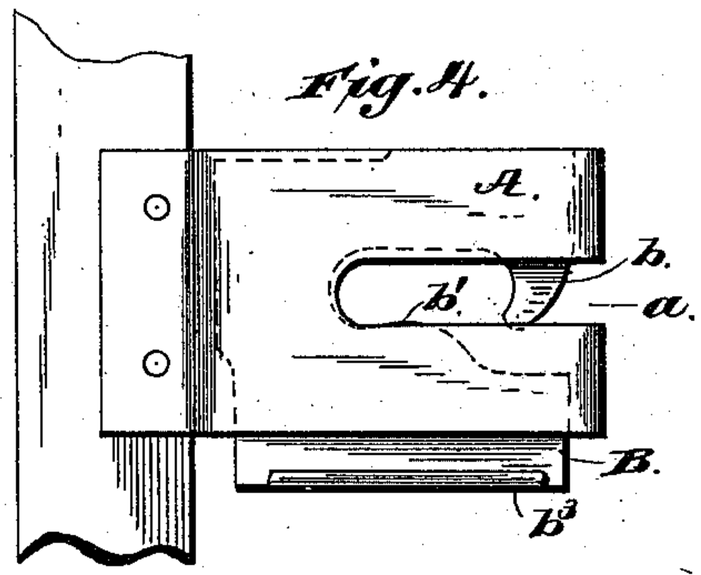


Fig. 5.

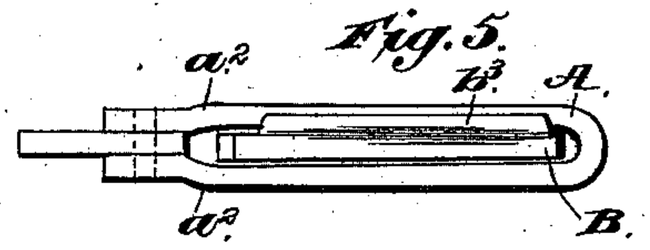


Fig. 2.

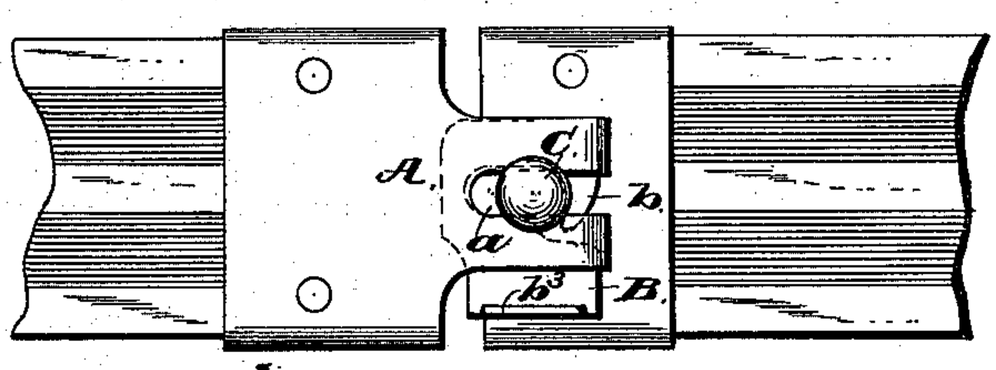


Fig. 6.

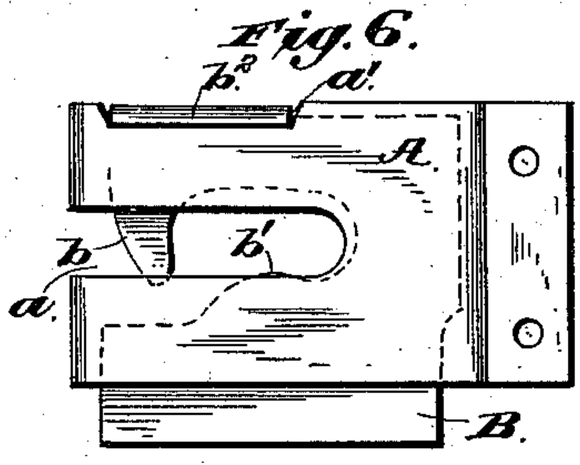


Fig. 3.

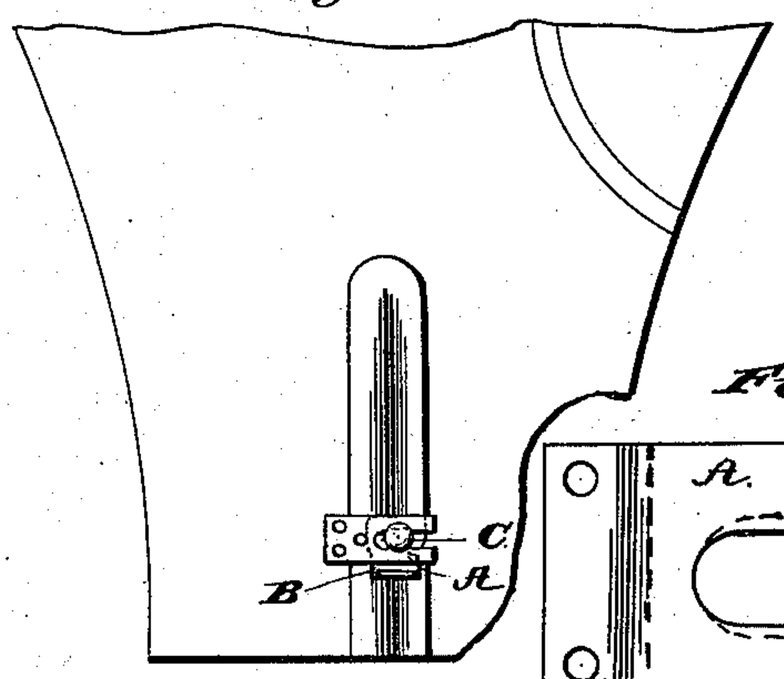


Fig. 7.

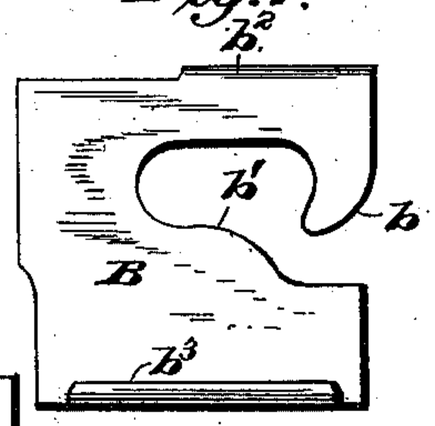
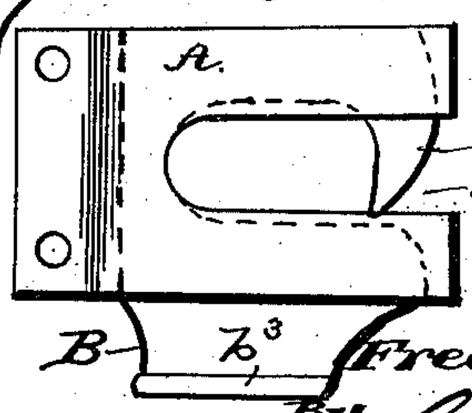


Fig. 8.



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Atty.

UNITED STATES PATENT OFFICE.

FREDERICK B. SPOONER, OF BROOKLYN, NEW YORK.

CLASP.

SPECIFICATION forming part of Letters Patent No. 401,977, dated April 23, 1889.

Application filed January 17, 1889. Serial No. 296,648. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK B. SPOONER, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Clasps; and I 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.

This invention relates to clasps for use in connection with garments or articles of wearing-apparel—such as corsets, belts, gloves, &c.—or any other purpose for which the device may be found applicable.

Primarily the invention consists of a supporting-plate of suitable construction, by which an automatically-operating latch is loosely and inseparably held without the use of attaching means.

Secondarily the invention consists in certain details of construction and arrangement, as will be more fully hereinafter described and claimed.

Heretofore in the construction of clasps of this character the latches have been pivotally secured to their supports and automatically returned to their closed positions by the action of springs of various forms interposed between and bearing against the several parts.

The object of my invention is to provide a clasp with a locking-latch having an automatic operation without the use of a pivot or spring.

In the accompanying drawings I have illustrated my preferred form of clasp, and therein like letters of reference are used to designate similar parts in the several views, and which are as follows:

Figures 1, 2, and 3 represent, respectively, a part of a corset, a belt, and a glove, showing my improved clasp in connection therewith. Fig. 4 is an enlarged view, in side elevation, of the clasp shown applied to a part of a corset steel or busk. Fig. 5 represents an edge elevation of the clasp on an enlarged scale. Fig. 6 is a view, similar to Fig. 4, of the reverse side of the supporting-plate. Fig. 7 is an enlarged detail view of the latch in elevation. Fig. 8 is a view similar to Fig. 4, showing a gravity-latch without a cam slot or projection.

Referring to the drawings, A indicates the supporting-plate, having a slot, *a*, opening outward from one end thereof. This plate is preferably constructed of a single piece of sheet metal doubled over upon itself and the two ends thereof secured to the article with which the clasp is adapted to be used. The upper edge of one member of said plate is constructed with a slot or recess, *a'*. The plate is also slightly bent outward, as at a^2, to provide an increased inclosing-space between the parts thereof, as fully shown in Fig. 5.

Within the plate A a latch, B, is loosely mounted and inseparably held therewith. This latch is formed with a depending hook, *b*, which overhangs the entrance to a slot formed in said latch. Within this slot a cam projection, *b'*, is formed, and the rear edge of the hook *b* is preferably concave in configuration. The upper and lower edges of the latch B are formed with guards or extended lugs b^2 and b^3, struck up from the metal of the latch and projecting outward from opposite sides thereof. The guard or lug b^2 is adapted to engage the slot or recess *a'* in the plate A and limit the downward movement of the latch, and the guard b^3 is adapted to bear against the lower edge of said plate and limits the upward movement of the latch. The said lower guard, b^3, is also used for opening the latch B when desired.

It will be seen from the above description that pivotal retention of the latch B within the plate A is entirely dispensed with, said latch moving vertically within the plate and prevented from becoming separated or disengaged therefrom by means of the guards b^2 and b^3.

In Fig. 8 a common gravity-latch is shown employed with the inclosing-plate.

The clasp, as hereinbefore set forth, is adapted to act in relative conjunction with a stud, C, or equivalent device. The shank of said stud enters the slot *a* in the plate A, and striking against the hook *b* of the latch B forces the said latch upward and places it in such position as to permit the shank to enter the slot in the latch. When the shank reaches

the cam projection b', it rides thereover and forces the said latch down until the hook b thereof closes the slot a in the plate A. To disengage the stud C from connection with the clasp, the latch B is raised by hand until the hook b thereof opens the slot a in the plate A.

In the clasp set forth the latch B is loosely held within the plate A, and without pivotal connection thereto. It will also be seen that the latch has a sliding movement and changing center, and is not limited to a single center of revolution.

By the clasp herein set forth a simple and effective device of manufacture is produced possessing strength, durability, and efficiency, is adapted to be readily applied, and can be cheaply manufactured. The clasp is shown attached by means of rivets; but any other form of attachment may be employed.

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

1. A clasp consisting of a supporting-plate having an automatically-operating latch loosely and inseparably mounted therein and unattached thereto, adapted for use with a stud or analogous device, substantially as described.

2. A clasp consisting of a bent sheet-metal slotted supporting-plate having an unattached sliding latch mounted therein, adapted to engage a stud or analogous device, substantially as described.

3. A clasp consisting of a slotted supporting-plate having a cam-slotted latch loosely mounted therein, adapted for use with a stud or analogous device, substantially as described.

4. A clasp consisting of a doubled slotted plate and a latch having a slot with a cam projection loosely mounted in said plate for use in connection with a stud or analogous device, as set forth.

5. A clasp consisting of a slotted supporting-plate, and a cam-slotted latch loosely mounted therein, having a guard with a bent edge for use with a stud or analogous device, substantially as described.

6. A clasp consisting of a slotted supporting-plate constructed from a single strip of sheet metal having the two opposing parts thereof slightly bent outward, and a latch having a cam-slot loosely and inseparably mounted in said plate for use in connection with a stud or analogous device, as set forth.

7. A clasp consisting of a slotted plate with an upper recessed edge, and a cam-slotted latch having an upper projecting guard adapted to engage with the top recess of said plate for use with a stud or analogous device, as set forth.

8. A corset-fastening comprising a corset steel or busk with a series of studs thereon, and a slotted plate attached to an opposite steel or busk, in which an automatically-operating latch is loosely mounted to freely slide therethrough and adapted to engage and secure a stud on the oppositely-situated steel or busk, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FREDERICK B. SPOONER.

Witnesses:
J. H. CHESLEY,
JAS. P. CRATE.