

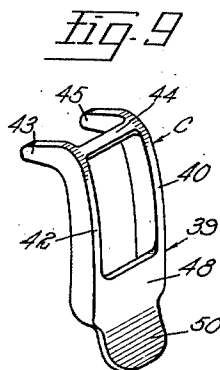
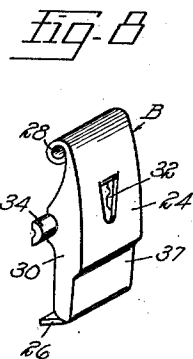
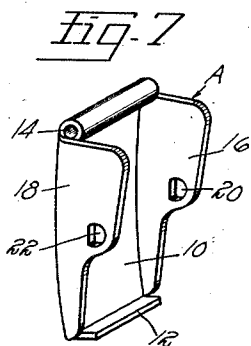
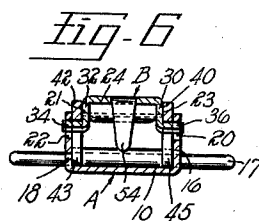
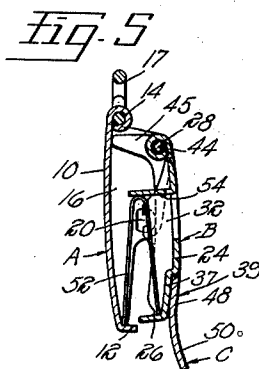
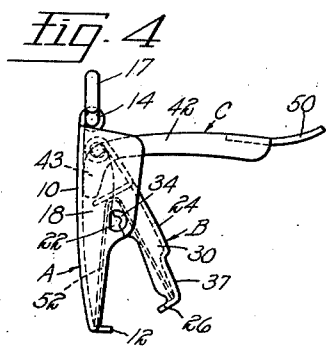
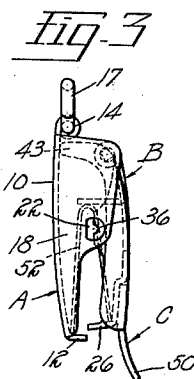
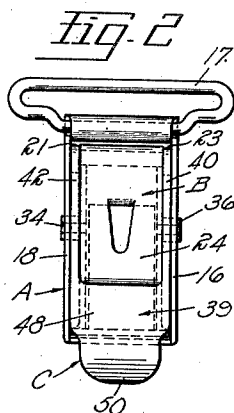
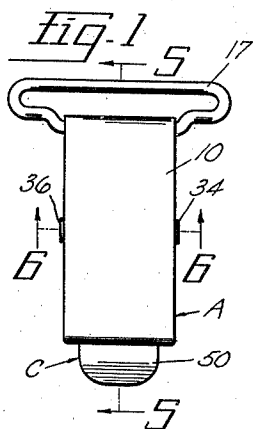
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J. B. FREYSINGER

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CLASP

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Inventor
JOHN B. FREYSINGER

By Lindsey + Robillard

Attorneys

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CLASP

John B. Freysinger, New Britain, Conn., assignor
to North & Judd Manufacturing Company, New
Britain, Conn., a corporation of Connecticut

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3 Claims. (Cl. 24-250)

The present invention relates to garment clasps and more particularly to a clasp especially adapted for use with suspenders.

The object of the present invention is to provide an improved clasp structure which is neat and compact, efficient and positive in its operation, and comprises a minimum number of parts, substantially all of which may be made from metal stampings, thus making the clasp economical to manufacture.

A still further object is a clasp of the type wherein there is provided cooperating jaw elements and an actuating element associated therewith for opening and closing the jaw elements and positively holding the jaw elements in closed position, and wherein the various elements are so correlated that the actuating element is so disposed that it cannot be unintentionally opened.

Other objects will be in part obvious and in part pointed out more in detail hereinafter.

The invention accordingly consists in the features of construction, combination of elements, and arrangement of parts which will be exemplified in the construction hereafter set forth and the scope of the application of which will be indicated in the appended claims.

In the accompanying drawing:

Figure 1 is a front view of a clasp embodying the invention herein;

Fig. 2 is a rear view of Fig. 1;

Fig. 3 is a side view of Fig. 1 with the clasp in closed position;

Fig. 4 is a view of the clasp in open position;

Fig. 5 is a sectional view taken on the line 5-5 of Fig. 1;

Fig. 6 is a sectional view taken on the line 6-6 of Fig. 1; and

Figs. 7, 8, and 9 are perspective views respectively of the front jaw member, rear jaw member, and actuating member.

Referring to the drawing, the invention comprises generally a front jaw member A, rear jaw member B, and an actuating element C, and in accordance with the invention herein the actuating element is disposed rearwardly of the front jaw member, thus making it inaccessible except for intentional opening when the clasp is in use. As best seen in Fig. 7, the front jaw member A comprises a rectangular front plate 10 provided at its lower edge with a rearwardly turned flange 12 and at its upper edge is reversed upon itself to provide a transverse bore 14 for pivotally mounting a web-receiving loop 17.

The front member A further includes side

flanges 16 and 18 extending rearwardly from and at right angles to the front plate 10; the flanges being provided intermediate of the upper and lower edges thereof with aligned pivot receiving openings 20 and 22. The flanges 16 and 18 may be cut away below the aligned openings 20 and 22 to substantially reduce the width of the lower portions thereof and to permit the lower flange 12 to extend therebeyond to function as the front garment gripping member.

As best seen in Fig. 8, the rear jaw member comprises a plate 24 provided at its lower edge with a forwardly extending flange 26 which cooperates with the flange 12 of the front member to securely clasp the garment therebetween. The upper edge of the plate 24 is reversed forwardly upon itself to provide a transversely extending bore 28 for pivotally supporting the actuating member, as will hereinafter be apparent.

The rear jaw member further includes side flanges 30 and 32 extending forwardly from and at substantially right angles to the plate 24; the flanges being provided intermediate of the top and bottom edges thereof with laterally extending pivot pins 34 and 36 adapted to be received within the aligned openings 20 and 22 of the front jaw supporting flanges for pivotally mounting the jaws together. In the present instance, the width of the plate 24 of jaw member B is substantially less than the space between the jaw supporting flanges 16 and 18 of the front jaw member, thus providing spacings 21 and 23 between adjacent flanges of the two members; these spacings being utilized to position the actuating member therebetween, thus reducing the overall thickness of the clasp to the thickness of the two jaw members and likewise allowing the disposition of the actuating member to the rear of the clasp.

To so position the actuating member, it comprises generally a frame member 39 having relatively flat side arms 40 and 42 spaced apart to space the rear jaw member and of such thickness as to readily fit within the spaces 21 and 23 between the adjacent flanges of the two jaw elements, whereupon when the actuating element is in closed position the outer edge of the arms 40 and 42 lie flush and in the plane of the plate 24 of the rear jaw element. To pivotally mount the arms 40 and 42, they are interconnected adjacent the upper ends thereof by a transverse bar 44 receivable within the bore 28 of the rear jaw member to pivot the actuating member thereon and forward of the plane thereof. The arms are further connected at their lower ends by a transversely extending plate 48 which tapers

into a lower rounded gripping portion 50; said portion being of such length that it extends below the lower ends of the cooperating jaw members and thus may be conveniently grasped for operation of the clasp. In order to pivot the jaws relative to one another, the side arms of the actuating member C each carry at their upper ends forwardly extending camming levers 43 and 45, which levers are at substantially right angles to the side arms 40 and 42.

It will be seen that with the foregoing construction when the actuating member C is pivotally mounted on the jaw member B and the jaw member B pivotally mounted on the jaw member A, the camming levers 43 and 45 will extend forwardly therefrom towards the rear surface of the front plate 10 of the front jaw member A. Thus, upon pivoting of the actuating lever in a clockwise direction to position the arms 40 and 42 thereof in the plane of the rear jaw member, the levers 43 and 45 will move over the rear surface of the plate 10, forcing the upper end of the rear jaw outwardly to pivot same relative to the front jaw and move the lower end thereof into gripping position.

In order to further reduce the thickness of the clasp, the plate 24 of the jaw member may have a forward offset 37 adjacent the lower end thereof; this offset having a depth equal to the thickness of the material of the transverse connecting member 48 of the actuating member, whereby, as best seen in Fig. 5, the connecting member 48 will also lie in the plane of and be continuous with the plate 24 of the rear jaw member when the clasp is closed.

The clasp may further include means for automatically opening the clamping jaws thereof upon movement of the actuating member; these means comprising a U-shaped spring 52 having its free ends respectively disposed on the flanges 12 and 26 of the jaw members and the base of the U abutting against a tongue 54 stamped out from and extending forwardly of plate 24 of the rear jaw member. With the spring so positioned, upon movement of the actuating member to a position where the end engagement of the levers 43 and 45 is below the pivot 44 thereof, the spring will act to force the jaws open.

With the clasp so constructed, when it is mounted on a suspender and attached to a garment, the actuating means therefor will not only be completely hidden, but will be inaccessible except to the user, and, by positioning the actuating member in the manner disclosed, the clasp may be made relatively small, although including positive and efficient actuating and locking means.

As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the language used in the following claims is intended to cover all of the generic and specific features of the invention herein described and all statements of

the scope of the invention which, as a matter of language, might be said to fall therebetween.

I claim as my invention:

1. A clasp comprising a pair of pivoted jaws, each jaw having a plate and flanges extending therefrom towards the opposite jaw, means pivotally connecting said flanges, the plate of said rear jaw being of lesser width than the plate of the front jaw to provide spaces intermediate of the adjacent jaw flanges, manually operable means for maintaining said jaws in closed position and comprising a pair of arms positioned in said spaces and having their upper ends pivotally mounted to said rear jaw, camming levers extending forwardly from the upper ends of said arms and abutting said front plate for holding said jaws in gripping position, a member rigidly interconnecting the lower ends of said arms, the plate of said rear jaw member being offset forwardly, said last-named member lying within said offset and between the planes defined by the front and rear jaws.

2. In a clasp, a jaw member comprising a front plate having flanges extending rearwardly therefrom and at right angles to the side edges thereof, said side flanges having aligned recesses therein, a rear jaw member comprising a rear plate of lesser width than the front plate of said front jaw member and having a forwardly extending offset in the lower end thereof, flanges extending forwardly from the rear plate and at right angles to the side edges thereof, said flanges having laterally extending pivots receivable in the aligned apertures of said front jaw flanges, an actuating member for moving said jaws relative to one another and comprising a pair of arms always positioned between the adjacent flanges of said rear jaw member so as to prevent transverse movement of one jaw relative to the other along the axis of the pivots, said arms being pivotally connected to said rear jaw member, camming levers carried by the upper ends of said arms and extending forwardly therefrom and at substantially right angles thereto to maintain said jaw members in closed position, and a transverse member interconnecting the lower ends of said arms and normally positioned in the offset, said actuating member lying entirely between the forwardmost plane defined by the front jaw member and the rearwardmost plane defined by the rear jaw member when the clasp is in closed position.

3. A clasp comprising front and rear pivoted jaw members, each of said jaw members including side flanges extending towards the other jaw member, said rear jaw member being of lesser width than said front jaw member, whereby a space is defined between the adjacent flanges of said jaw members, and an actuating member for moving said jaws relative to one another and comprising means pivotally mounted on said rear jaw member and adapted to be positioned within the spaces between the adjacent jaws of the flanges, whereby said means will lie wholly within the front and rear planes defined by the two jaw members and within the said planes defined by the side flanges of the front jaw member.

JOHN B. FREYSINGER.