Aug. 21, 1962 G. S. HAWIE 3,049,782

CLIP

Filed April 6, 1961

Fig. 1

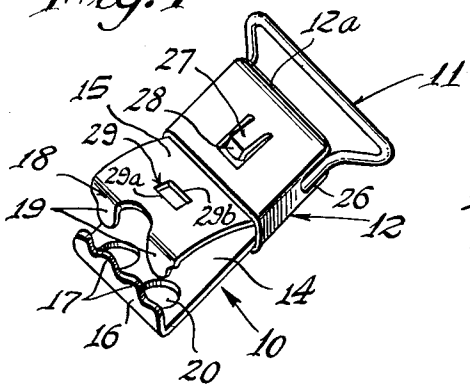


Fig. 2

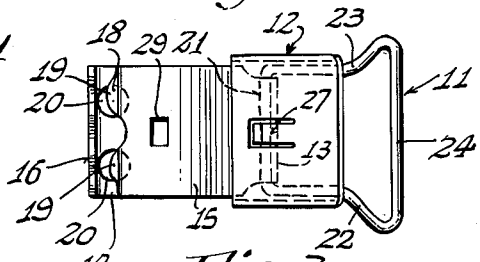


Fig. 3

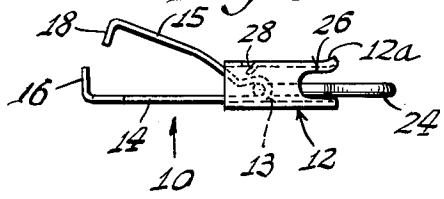


Fig. 5

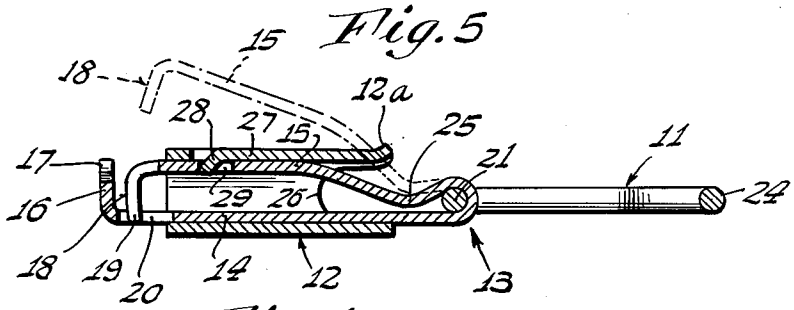
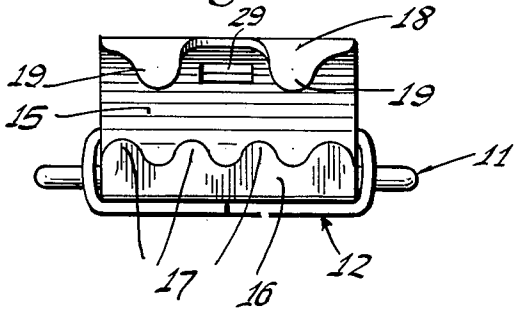


Fig. 4



INVENTOR.
Gabriel S. Hawie
BY
Johnson and Kline
ATTORNEYS

United States Patent Office 3,049,782 Patented Aug. 21, 1962

3,049,782

CLIP

Gabriel S. Hawie, Bridgeport, Conn., assignor to The Hawie Manufacturing Company, Bridgeport, Conn., a corporation of Connecticut

Filed Apr. 6, 1961, Ser. No. 101,255
2 Claims. (Cl. 24—260)

This invention relates to a clip for use in securing garments or the like together and more particularly to a clip which is thin, easy to operate and simple to manufacture.

It is an object of the invention to provide a clip which can be comfortably used under clothing to fasten portions of the clothing together without objectionable noticeable bulges on the exterior of the garments.

It is another object of the invention to provide a simple construction which is efficient, reliable and easy to operate.

It is a further object of the invention to provide an inexpensive clip having a minimum of parts which can be readily manufactured and assembled.

These objects are accomplished in accordance with the present invention by providing a thin three-piece clip which comprises a gripping member, a loop for connecting the clip to a garment and an actuating sleeve for operating the gripping member.

Each of the elements can be manufactured by simple machine operations and can be readily assembled by positioning the attaching loop in the bend of the gripping member and thereafter sliding the sleeve over the gripping jaws. The sleeve is provided with means for limiting the outward movement thereof in a gripping position which also prevents the sleeve from being separated from the clip and is provided with detent means for releasably holding it in gripping position, yet permitting it to be moved to a retracted position to permit the gripping j ws to be separated for the removal or insertion of an article therebetween.

Other features and advantages of the invention will be apparent from the specification and claims when considered in connection with the accompanying drawings in which:

FIGURE 1 shows a perspective of the clip.

FIG. 2 is a top view of FIG. 1.

FIG. 3 is a side view of FIG. 2.

FIG. 4 is a front view on an enlarged scale of FIG. 2.

FIG. 5 is a longitudinal sectional view of the clip with the sleeve in gripping position and the upper clamping jaw shown in dot and dash lines in its normally open position.

As shown in the drawings, the clip of the present invention comprises a gripping member **10**, an attaching loop **11** and an actuating sleeve **12**. The gripping member is formed from resilient strip material and is bent intermediate its ends at **13** to form a lower jaw **14** and an upper jaw **15** in superposed relation. It will be noted that at the forward end of the lower jaw is an upwardly extending gripping portion **16** which is provided with a serrated, material-engaging edge **17**. The upper jaw is normally held in a raised position, as shown in FIG. 3 by the resiliency of the material thereof, and has at its forward end a downwardly projecting gripping portion **18** having spaced teeth **19**. In order to enhance the gripping action of the clip, apertures **20** are provided in the lower jaw adjacent the gripping portion thereof into which the teeth **19** penetrate when in clamping position as shown in FIG. 5.

The attaching loop **11** which may be made of a stamping or molding of plastic material is herein illustrated as being formed of wire and includes a clip-engaging portion **21** adapted to be inserted in the bend **13** in

the gripping member and has side portions **22**, **23** extending rearwardly of the bend and flaring outwardly and terminating in a crossbar **24** forming a closed loop adapted to receive the usual tape or the like, not shown. Preferably the upper jaw is bent as indicated at **25** to secure the loop in position on the gripping member.

The sleeve **12** which is bent up from sheet metal or formed from an extrusion or the like is relatively flat and is adapted to be slipped over the jaws when the jaws are in closed position to be moved to a retracted position, as shown in FIG. 3. In this position the sleeve is out of clamping relation with the jaws and permits the resiliency of the gripping member to move the upper jaw to the position of FIG. 3.

Preferably, the sleeve is provided with notches **26** on either side, as shown in FIG. 3, which permits the sleeve to move to retracted position without interference by the loop.

In the preferred form of the invention the sleeve is provided with a tongue member **27** lanced therefrom and having the forward end **28** thereof downwardly and forwardly inclined and the upper jaw of the gripping member is provided with an aperture **29**, preferably a squared aperture, into which the tongue passes when the sleeve is moved forwardly into gripping position as shown in FIG. 5. The tongue will engage the edge **29*a*** of the aperture and stop the sleeve in gripping position. It also will prevent inadvertent removal of the sleeve from the gripping member. Further the tongue in the aperture forms a detent which prevents the sleeve from inadvertently sliding backward on the jaws to move to a retracted position and augments the tension of the jaws pressing against the sleeve to retard its movement. However, when the sleeve is moved back under positive pressure to release the jaws, the undersurface of the tongue will engage the edge **29*b*** which will have a camming action to raise the tongue out of the aperture and permit the sleeve to move to said retracted position.

It will be seen, therefore, that a very thin clip can be provided which can be used, for example, to grip the lower edge of a bra and connect it to a girdle or the like secured to the loop to hold it in place without discomfort to the wearer or without objectionable bulges showing on the outer garment. The simple movement of the sleeve **12** provides great ease in operation of the clip in moving it into and out of clamped relation.

Furthermore, the structure of the clip permits it to be manufactured and assembled in such a manner as to produce a relatively inexpensive device.

In the manufacture, the gripping member can be molded or stamped from strip metal, the wire loop can be readily formed on a wire-forming machine and the sleeve can be extruded or formed in a simple metal bending operation and can have the tongue lanced out of the strip as this is accomplished. Thereafter, it is but a simple operation to assemble the unit since the loop can be snapped into the bend of the gripping member and, if necessary, the gripping member can be bent inwardly, as shown at **25** in FIG. 5, to lock the loop in position. Thereafter, the sleeve is slid over the forward end of the gripping member and into operative relation. If desired, the rear upper end **12*a*** of the sleeve can be slightly flared upwardly, as shown in FIGS. 3 and 5, to facilitate its insertion over the clamping jaws and to provide a raised thumbpiece for assisting in moving the slide to retracted position.

Variations and modifications may be made within the scope of the claims and portions of the improvements may be used without others.

I claim:

1. A clip comprising a resilient member having a transverse bend intermediate the ends thereof to provide

upper and lower gripping jaws, one of said jaws extending beyond the other and both of said jaws having gripping portions at the ends thereof, the longer jaw having apertures therein adjacent the gripping portion thereof and the gripping portion of the shorter jaw having cooperating teeth extending into said apertures in gripping position, an attaching loop secured in the bend at the rear of the jaws and projecting rearwardly from said bend and having a wide tape-receiving portion, said jaws being normally urged to a position in which the gripping portions are in spaced relation to receive an article to be gripped thereby, a sleeve slidable on the jaws and having a length to substantially cover the jaws when moved from a retracted position to a forward gripping position in which the sleeve moves the gripping portions into gripping relation with the article, said sleeve having side notches at the rear for receiving the wide tape-receiving portion of the attaching loop, when the sleeve is moved to retracted position to overlie the end of the attaching loop connected to the jaw, whereby said sleeve is moved substantially off the jaws to permit a wider opening of

the jaws, and a cooperating tongue and aperture means on the sleeve and at least one of the jaws for limiting the forward movement of the sleeve in gripping position.

2. The invention as defined in claim 1 wherein the cooperating tongue and aperture means comprises a forwardly and inwardly extending tongue on the sleeve cooperating with an aperture in one of the jaws for limiting the forward movement of the sleeve in gripping position.

References Cited in the file of this patent

UNITED STATES PATENTS

385,330	Taylor	June 26, 1888
550,920	Miller	Dec. 3, 1895
704,973	Katz	July 15, 1902
890,241	Livingston	June 9, 1908
903,373	Hall	Nov. 10, 1908
1,461,626	Mason	July 10, 1923
1,564,424	Lynch	Dec. 8, 1925
1,962,851	Wiseman	June 12, 1934
2,598,600	Rank	May 27, 1952