Aug. 27, 1940. J. E. KRAFT ET AL 2,212,837

CLASP

Filed May 26, 1939

Fig. 1.

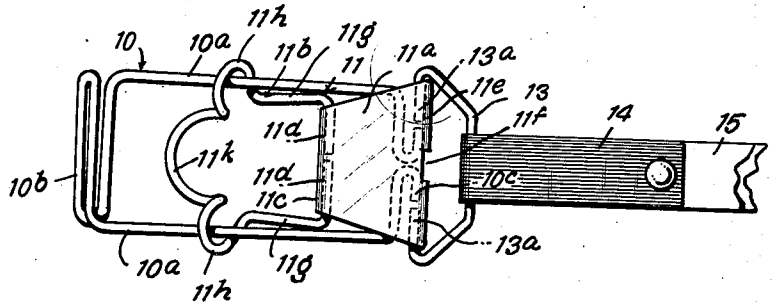


Fig. 2.

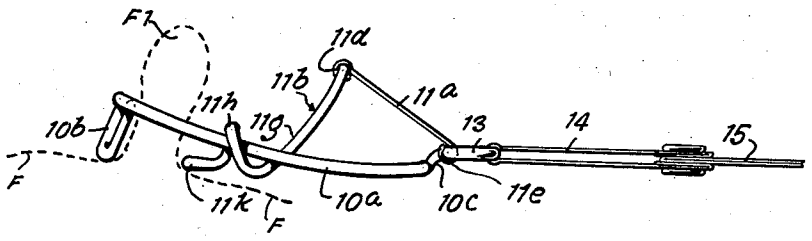


Fig. 3.

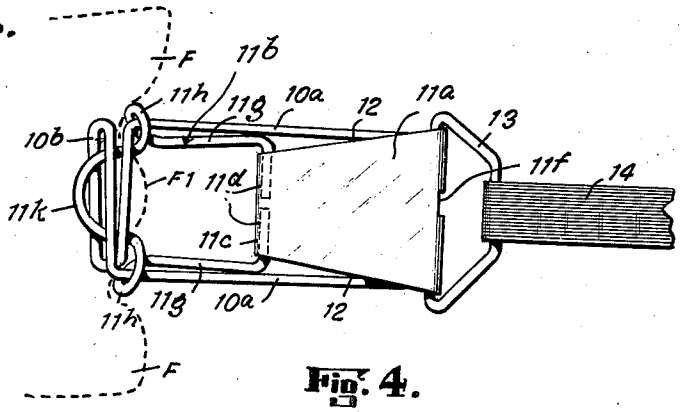
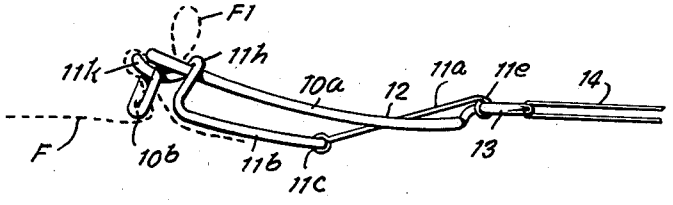


Fig. 4.



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CLASP

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Application May 26, 1939, Serial No. 275,890

6 Claims. (Cl. 24—248)

This invention relates to clasps suitable for securing fabrics and has for an object the provision of improvements in this art.

The invention has been developed for holding bed covers for infants but is suitable for holding all kinds of flexible sheet-like fabrics. It provides a new and improved clasp which may be very easily manipulated; which will very securely hold the fabrics in position; which is of a simple and sturdy construction; and which will be relatively inexpensive to manufacture.

One of the important features of the clasp is that it has its parts permanently assembled in such a way that it is not necessary to assemble them when attaching to a fabric article since they are always ready for clasping and unclasping and this may be accomplished by a simple movement by one hand, leaving the other hand entirely free to manipulate the article.

A preferred embodiment of the invention is shown in the accompanying drawing, wherein:

Fig. 1 is a top plan view of the clasp in open position;

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

Fig. 3 is a top plan view of the clasp in closed position; and

Fig. 4 is a side view of Fig. 3.

The clasp comprises a body part 10 and a toggle part 11 operatively associated with the body part.

The body part comprises a member 10 which may be formed of stiff wire having approximately straight parallel side bars 10*a*, a first jaw member in the shape of a fabric receiving loop or mouth 10*b*, and reversely bent attaching ends 10*c*. The plane of the loop 10*b* stands at approximately right angles to the side bars 10*a*. The bent attaching ends 10*c* are inclined at an angle of approximately 45 degrees to the side bars. The loop 10*b* is preferably bent downwardly sufficient to take the end of the toggle member, while the ends 10*c* are bent upwardly to some extent.

The toggle part 11 may be formed of a plate 11*a* and a cooperating tongue 11*b*, preferably formed of stiff wire. The tongue constitutes a second fabric gripping jaw.

The plate 11*a* of the toggle part is formed with curled ends, the lower one 11*c*, embracing the inturned ends 11*d* of the tongue, and the upper one 11*e* embracing the out-turned ends 10*c* of the body member. The upper curled end is cut away at the center, as shown at 11*f*, to receive the ends 10*c* of the body member. The plate 11*a* is preferably tapered on the sides, being widest at its upper end, and these tapered sides form a stop by coming against the inside edges of the body bars 10*a* when the clasp is in closed position, as shown in Figs. 3 and 4. The points at which the parts engage are indicated by the numeral 12.

The tongue 11*b* of the toggle part is formed with approximately straight parallel side bars 11*g* fitting between the side bars 10*a* of the body member, spring loops 11*h* embracing the body side bars 10*a*, and a curved end 11*k* adapted to enter the mouth of loop 10*b*. The tongue end is curved upward at the end to grip the fabric to the upper side of the body loop 10*b*, as shown in Fig. 4.

At the upper end an attaching ring 13 is provided, being hinged by its inturned ends 13*a* to the upper curled end 11*e* of the plate 11*a*. A length of elastic band 14 and cloth tapes 15 may be provided for securing the clasp by its ring 13 to the post of a bed or other suitable anchorage.

The spring loops 11*h* of the tongue 11*b* ride upon the side bars 10*a* of the body member and keep the parts in proper operating position at all times, making it unnecessary to direct one part toward or into the other, as has been required with previous clasps wherein the fabric or material engaging elements were completely separable from each other. The operator is thereby enabled to devote one hand entirely to handling the fabric while the other hand alone can manipulate the clasp. The parts are so disposed that the tongue 11*k* approaches the loop 10*b* while moving approximately parallel to the side bars 10*a* so as to push the fabric F, which is shown in dotted lines, fairly through the loop. Further movement of the tongue is in an upward direction as the upper sides of the spring loops 11*h* engage the upper surface of the bars 10*a* and this clamps the fabric against the upper side of the loop as the hinged center of the toggle moves past dead center position to the final locking position.

Both the loops 11*h* and the loop 10*b* are resilient so that the fabric is resiliently locked in the clasp and the toggle is resiliently locked in dead center position so as to avoid accidental release.

The plate 11*a* of the toggle is accessible from both sides for the fingers and thumb of the operator. The space between the bars 10*a* is wide enough for the thumb or finger to easily pass through for either clamping or releasing the clasp. When the parts are in the fully opened

position as shown in Figs. 1 and 2 the end of the tongue 11k is spaced far enough away from the loop 10b to permit the finger or thumb of the operator to pass clearly through with the fabric, even where several thicknesses of sheets or blankets are to be secured. Either the edge or a fold F1 of the fabric may be pushed through the opening. The tongue member 11b is open, being made as a frame, so that the nails of the thumb and finger will stand clear and not be injured during manipulation of the clasp. The thumb and fingers are not near parts which snap together when the toggle is thrown over to locking position and injury from this cause is also avoided.

In operation, the thumb and index finger of one hand are placed on the plate 11a, the thumb being on top and the finger being underneath. The ends of the thumb and finger may extend over the lower end of the plate within the tongue member 11b. The index finger of the other hand is placed beneath the fabric to be clasped and pushes the fabric through the opening between the tongue 11k and loop 10b, as shown in Figs. 1 and 2. Then the toggle plate is pressed down by the thumb as the finger is withdrawn from the opening, thus leaving a portion of the fabric between the end of the tongue and the opening of the loop 10b. Further pressure on the plate forces the toggle knuckle through the opening between the side bars 10a and this causes the tongue to push a fold of the fabric through the loop and bind it against the upper edge of the loop, as shown in Figs. 3 and 4. As thus secured, the fabric is firmly held and will effectively resist attempts to pull it out, particularly since the hemmed edge of the fabric must pass the clamping parts of the clasp before release can be effected.

In this clamping action the tongue is self threading as the loops 11h slide down the side bars 10a.

For release, the toggle is snapped back to the Fig. 2 position, whereupon the fabric may be readily pulled out.

It is thus seen that the invention provides a very simple, inexpensive, easily manipulated clasp which very securely holds the material to which it is attached. The parts are always in proper assembly for operation. The clasp is not likely to pinch the fingers or injure the nails of the operator. The clasp is very thin when closed to clamping position and has few projections and is unlikely to injure the infant under the covers. Such projections as are present are broad and round. The grip is over sufficient area to avoid tearing the fabric. Other advantages, uses and features of the clasp will be apparent from the above description of a specific embodiment.

While one embodiment has been described in detail in order to illustrate the principles of the invention, it is to be understood that the invention may have various embodiments within the limits of the prior art and the scope of the subjoined claims.

We claim:

1. A clasp for fabrics or the like, comprising in combination, a body member having parallel sides and a bent loop at one end, a toggle hinged at one end to the end of the body member opposite the loop, the toggle having a tongue adapted to enter said loop carrying a thickness of fabric with it, and means on the toggle near the tongue slidably embracing the sides of the body member for guiding the tongue in and out of the loop.

2. A clasp for fabrics or the like, comprising in combination, a body member having side bars and a bent loop at the lower end, and a toggle comprising a finger plate and a frame-like tongue member, the plate being hinged at its upper end to the upper end of the body member and being hinged at its other end to the upper end of the tongue member, an upwardly bent tongue at the end of the tongue member, and spring loops on the tongue member near the tongue slidably embracing the side bars of the body member.

3. A clasp for fabrics or the like, comprising in combination, a body member having parallel side bars and a bent loop at the lower end, and a toggle comprising a thumb plate and a frame-like tongue member, the plate being hinged to the upper end of the body member, the tongue member having a tongue at its lower end adapted to enter the loop and having spring loops near the tongue slidably embracing the side bars of the body member, the knuckle of the toggle being sufficiently narrow to swing through the opening between the side bars of the body member between open and closed position, and said thumb plate being of a width near its upper end to engage the side bars to stop the movement of the toggle in locking position.

4. A clasp for fabrics or the like, comprising in combination, a body member having approximately straight parallel side bars, a downturned jaw element at its lower end and upturned reversely bent portion at its upper end, and a toggle hinged to the upturned body member portion at its upper end, having spring loops slidably and retainably mounted on the side bars near its lower end, and having a jaw element at its lower end cooperating with the jaw element of the body member.

5. A clasp for fabrics or the like, comprising in combination, a frame-like body member having side bars and a jaw element at its lower end, and a toggle hinged at its upper end to the upper end of said body member, having a jaw element at its lower end, and having means for slidably and retainably connecting it near the lower end at all times to the side bars of the body member.

6. A clasp for fabrics or the like, comprising in combination, a frame-like body member having side bars and a jaw element at its lower end, and a toggle hinged at its upper end to the upper end of said body member, having a jaw element at its lower end, and having means for slidably and retainably connecting it near the lower end at all times to the side bars of the body member, said body member and toggle being provided with interengaging elements which limit the toggle movement in locking direction.

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