

May 14, 1968

R. S. PRICE

3,382,549

TOGGLE ACTION GARMENT CLASP

Filed Oct. 5, 1965

2 Sheets-Sheet 1

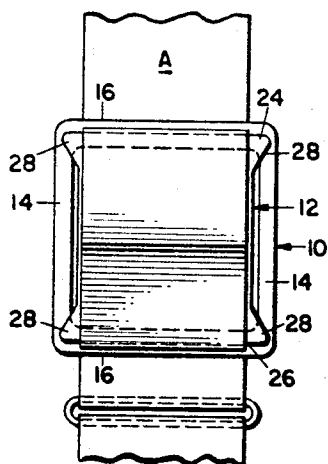


FIG. 4.

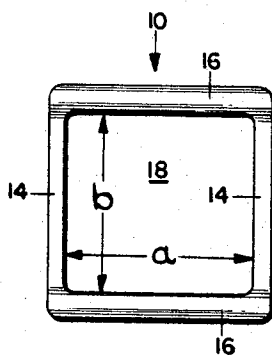


FIG. 1.

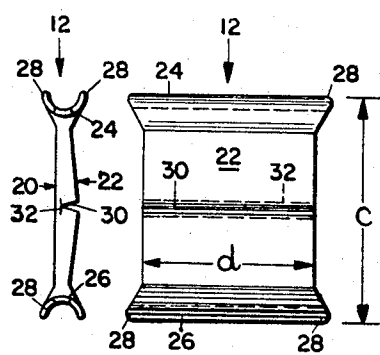


FIG. 3.

FIG. 2.

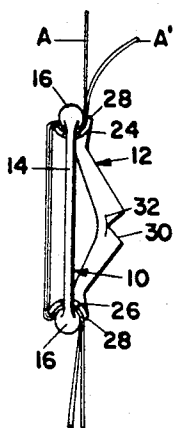


FIG. 5.

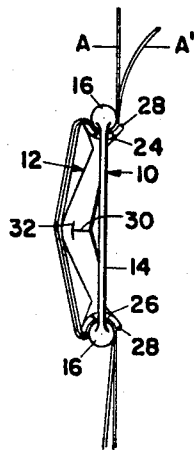


FIG. 6.

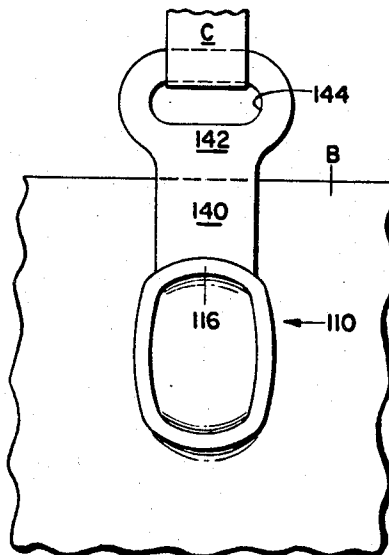


FIG. 8.

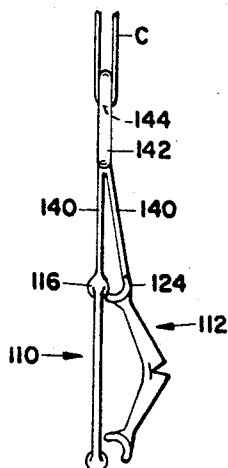


FIG. 7.

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2 Sheets-Sheet 2

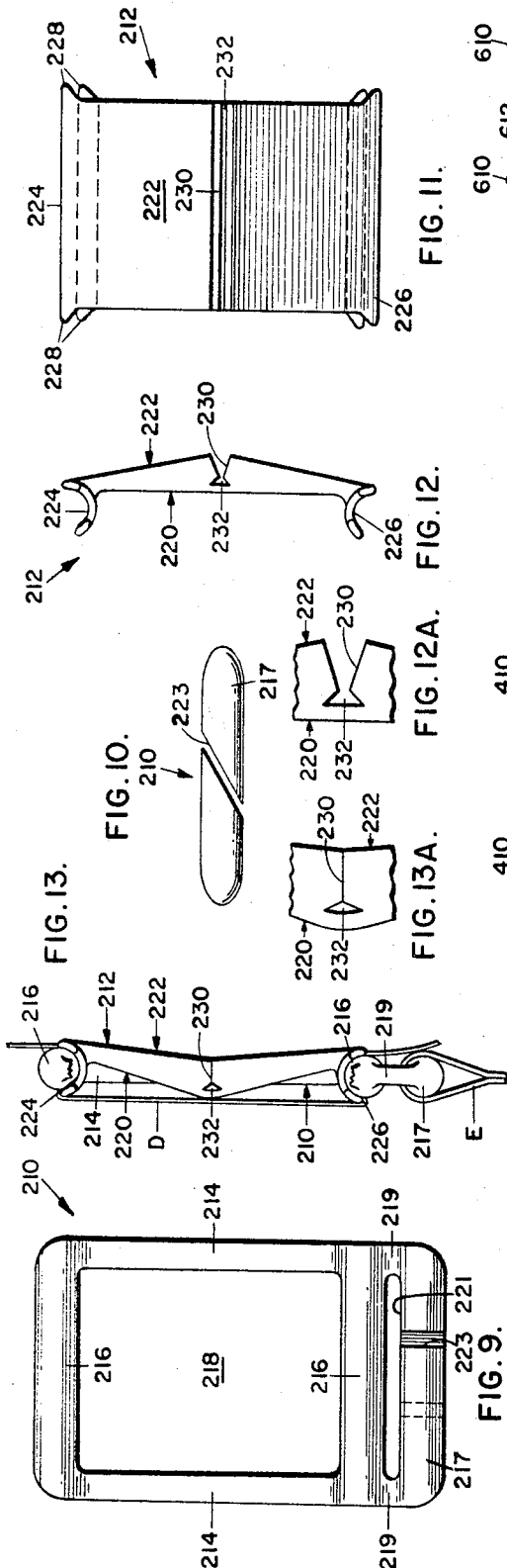


FIG. 11.

FIG. 12.

FIG. 12A.

FIG. 13A.

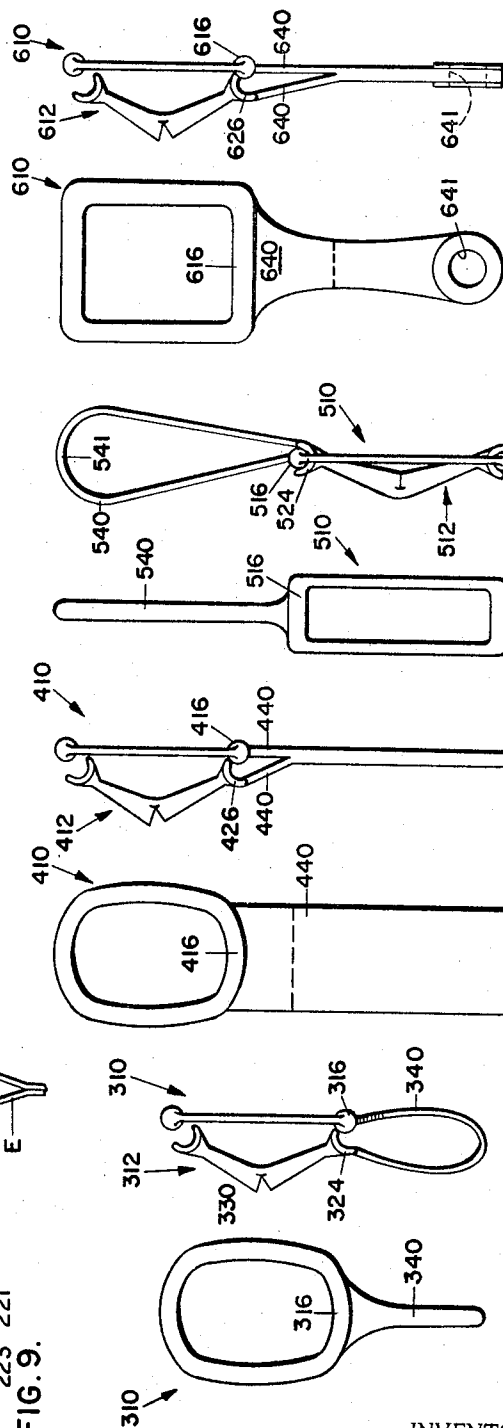


FIG. 14.

FIG. 15.

FIG. 16.

FIG. 17.

FIG. 18.

FIG. 19.

FIG. 20.

FIG. 21.

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TOGGLE ACTION GARMENT CLASP
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ABSTRACT OF THE DISCLOSURE

A material clasp comprising a frame and a deformable wedge; the frame having an opening and opposing pressure-receiving seats at opposite ends of the opening; the deformable wedge having spaced pressure seats for engaging the pressure-receiving seats on the frame, there being means on the deformable wedge for loosely engaging the pressure seats on the wedge with the pressure-receiving seats on the frame when the deformable wedge is in the opening in the frame with the means on the deformable wedge at one side of the frame and for tightly engaging the pressure seat on the wedge with the pressure-receiving seats on the frame when the means on the deformable wedge is at the opposite side of the frame.

The present invention relates to improvements in clasp-
 ing or securing or supporting media of multiple applica-
 tion which can be economically formed as one piece or
 two piece arrangements, of plastic or equivalent material,
 by high speed injection or other molding techniques or by
 other fabricating methods.

The unique feature of the invention lies in its novel
 gripping or clamping action, allowing use: (1) in the posi-
 tive securement of straps as found on articles of clothing
 such as slips, brassieres, bathing suits and the like; (2) in
 the securement together of articles of clothing as for in-
 stance during laundering where it may be desired to give
 ready identification of ownership to a particular piece
 and/or to keep together articles of a pair; (3) in the at-
 tachment of price or information tags to clothing or fab-
 rics or the like as in merchandising; (4) in the suspending
 or hanging of curtains or draperies and the like; (5) in
 the supporting and securing of sheeting as in the case of
 vehicle tarpaulins, tentage, tenting, swimming pool covers
 and the like; (6) and in myriad other applications.

Devices of the clamping or securing or supporting types
 comprehended are commonly used, for instance, in wear-
 ing apparel in which a band is used which may be adjusted
 to suit the wearer. In such, it is common to provide a loop
 made of metal or plastic offering a slot of sufficient width
 to permit two bands or two parts of a single band to be
 passed therethrough. Generally, one of the parts is adjust-
 able relatively to the loop and the end of the other part
 is passed through the slot and sewn or otherwise secured
 to the portion of the other band not passed therethrough.
 Such type of connection is objectionable for the reason
 that when a pull is exerted on the two parts passing
 through the slot of the loop, which pull may be other
 than parallel to the edges of the band, i.e., somewhat
 diagonally with reference to the length of the band, the
 parts frequently will slide in opposite directions so as to
 produce an unsightly appearance and to change the ad-
 justment of the band with the result that the associated
 article is then caused to fit loosely on the wearer.

A variety of other different devices have been proposed
 for the purpose of fastening or supporting garments, for
 instance, stockings. Fasteners in common use today in-
 clude a back member having a raised lug portion thereon
 and a front member formed from metal wire or the like.
 During use, the wire is slidably engaged over the lug with
 the top of the garment positioned between the lug and the
 wire member. These fasteners, however, suffer from a

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number of disadvantages. First, the garment is supported
 at only one point and therefore is subject to becoming
 torn. Second, the metal wire member or the hinge portion
 between the metal wire member and the body portion will
 sometimes pinch the user. A further disadvantage of this
 type of fastener is that it is relatively thick and can conse-
 quently become uncomfortable, not to mention the es-
 thetic problem of unsightliness.

Other types of fasteners have been devised including
 some which provide front and rear fastener members,
 each including a horizontally disposed flange at the upper
 and lower end thereof. These flanges are locked together
 when the fastener is placed in use. This fastener, too, has
 certain shortcomings. First, the fastener, when assembled,
 is relatively thick since the front and back members are
 spaced apart by the flanges. Second, members can slide
 laterally with respect to one another and as a result, may
 become accidentally separated thereby releasing the gar-
 ment. For these and other reasons, not specifically enu-
 merated, the prior art fasteners of the type described have
 been considered either difficult to fabricate or to some
 extent ineffective in operation.

One significant disadvantage of most prior art construc-
 tions is that they dictate the use of both hands to effect
 their connection to and/or release from articles or ma-
 terials which they serve.

In view of the deficiencies in the prior art, it is one
 object of the present invention to provide an improved
 fastener, particularly useful for supporting garments,
 which is rugged in construction, reliable in operation, and
 attractive in appearance.

Another object is to provide a simple, secure and
 quickly-operable connection between one band or part and
 another band or part whereby both parts will be so main-
 tained in correct relationship with respect to each other
 that slippage of one or both of the parts lengthwise of the
 connection is avoided and the usual resulting bunching of
 parts is precluded.

Devices presently on the market, while positive in their
 grip, usually subject the material with which they coat
 to severe local strains and stresses or perforations where-
 for same is frequently torn or otherwise damaged.

Another objectionable characteristic of the commonly
 known devices is that they varyingly injure the material
 engaged by the grip means when in use and additionally,
 when such grip means is released, leave the removed ma-
 terial disfigured. Such noted disadvantages are especially
 pronounced with such as conventional hosiery suspenders
 and other garment holders which should hold securely,
 though the garments be of fine texture, and without sub-
 jecting the garments to undue strain.

Most of the prior art clasps and fasteners are formed
 basically or entirely of metal and have various means of
 pinching or clamping the item with which engaged. They
 present the obvious disadvantage inherent in any metallic
 substance coming in direct contact with a user in the re-
 spect that it tends to corrode or rust and to chafe or
 scratch the skin.

This invention recognizes the disadvantages present in
 most prior art clasps and fasteners and aims to teach im-
 proved solutions to the connecting problem by providing
 clasp and fastener constructions which are more effective
 in their hold, and yet retain the articles with which they
 are employed without perforations or undue strains or
 stresses.

Another object is to provide thin or flat constructions
 when assembled and when in use to minimize unsight-
 liness and to maximize wearing comfort, and yet allow-
 ing clamping actions such as to grip the material being
 clasped uniformly across the threads thereof thereby dis-
 tributing the pulling action and lessening strain in any
 single localized area.

Another salient objective is to provide separable means which advantageously may be easily interengaged for closing and opening purposes and which will be secure against unwanted disengagement while in operative use.

A further objective borne in mind during the development hereof has been to provide fastener means particularly adopted for supporting articles of wearing apparel and significantly free of tendencies to pinch the user when being attached and/or when being used.

Another salient object is to teach clasps or fasteners of improved types which may be of either one or two piece constructions which are economical in their manufacture.

Herewith I provide a secure clasp or fastener means comprised broadly of a clamping or locking or wedging element and a frame or body element wherein said elements can be quickly and readily interengaged wherefor the clasp or fastener may be easily attached to and detached from an article with which employed.

The invention relates particularly to a species including interlocking supporting and locking elements adapted to receive and positively grip or clasp or secure or support the engaged part of a garment when the invention is used to engage a garment, be it a foundation garment or an item of hosiery or the like, or the engaged part of a laundry item for identification purposes in domestic or commercial laundering or dry cleaning, or the engaged part of sheeting as in connection with vehicle tarpaulins, tentage, pool covers and/or the like, the interengageable elements being easily manipulatable by one hand in effecting connection to or release from the associated article it is called upon to serve.

According to a further aim of the invention, I provide a generic form of sheet like article-engaging mechanism which eliminates the threat of damage to the article by spreading the tension strains laterally or over a greater area in comparison with existing types of devices.

In preferred form, the invention is characterized by the provision of a comparatively thin article clamping or securing or fastening mechanism having a supporting element provided with an article engaging aperture with opposing differentially-directed tongue portions and a lock element of a general shape corresponding to the shape of the aperture for sliding-snap engagement therewithin and relative to the tongue portions.

In a clasp or fastener of this nature, certain features or characteristics are prime desiderata. It must be easily attached to or detached from the item being supported or to which attached, it must present a wide enough attaching surface to avoid damage to the item being supported, it must be sufficiently strong and durable to withstand repeated use and wear, and it must in use be smooth appearing relative to the items with which used.

The preferred material for the clasp or fastener hereof is a strong, relatively stiff, yet resilient, synthetic plastic of a type which will be non-reactive to a user's skin.

Herein the operating components are molded as a pair of separate parts in certain embodiments and as a unitary structure in other embodiments.

So formed, the clasp or fastener has sufficient tensile strength for the purposes intended while being sufficiently frangible as to make practical a flexure of one component relative to the other by force of the generated torsional stresses, all the while locking therewith an article or material interpose therebetween.

Other objects and advantages, including those derived from inexpensive manufacture and simplicity in use, will appear in the following detailed specification when read with reference to the drawings by which the specification is accompanied and in which:

FIG. 1 is a view in top plan of the support or frame of a clasp or fastener embodying one preferred exemplification of the device of the invention;

FIG. 2 is a view in top plan of the lock or wedge of the clasp or fastener of FIG. 1;

FIG. 3 is a view in end elevation of the lock or wedge of FIG. 2, as viewed from the left side thereof;

FIG. 4 is a fragmentary view in top plan of a clasp or fastener embodying the first exemplification of the invention incorporating the support or frame of FIG. 1 and the lock or wedge of FIGS. 2 and 3 and dramatizing the active position of same in interengagement with such as a strip of fabric, a portion of same being shown as held thereby;

FIG. 5 is a view in vertical end elevation, as seen from the right of FIG. 4, in initial entering position of the lock or wedge preparatory to its snap coaction with the support or frame in the assumption of the fabric-locking position;

FIG. 6 is a corresponding view showing the respective parts in active position, or stated otherwise, with the fabric locked against accidental release;

FIG. 7 is a view in vertical end elevation of a modified form of clasp or fastener embodying a second exemplification in accordance with the invention;

FIG. 8 is a view in top plan showing the clasp or fastener of FIG. 7 in interengagement with such as an item of fabric;

FIG. 9 is a view in top plan of a support or frame of a clasp or fastener embodying a third exemplification of the invention;

FIG. 10 is a view in vertical end elevation of the support or frame shown in FIG. 9;

FIG. 11 is a view in top plan of the lock or wedge of a clasp or fastener embodying another exemplification of the invention;

FIG. 12 is a view in vertical end elevation as seen from the left of FIG. 11;

FIG. 12A is an enlarged fragmentary view similar to FIG. 12;

FIG. 13 is a view in vertical end elevation showing the clasp or fastener embodying the features of the support or frame of FIGS. 9 and 10 and of the lock or wedge of FIGS. 11 and 12;

FIG. 13A is an enlarged fragmentary view in vertical end elevation of the lock or wedge of FIG. 13;

FIG. 14 is a view in top plan of a combination support or frame and lock or wedge of a fifth exemplification of the invention;

FIG. 15 is a view in vertical end elevation of the exemplification of FIG. 14;

FIG. 16 is a view in top plan of combination support or frame and lock or wedge of a sixth exemplification of the invention;

FIG. 17 is a view in vertical end elevation of the exemplification of FIG. 16;

FIG. 18 is a view in top plan of a combination support or frame and lock or wedge of a seventh exemplification of the invention;

FIG. 19 is a view in vertical end elevation of the exemplification of FIG. 18;

FIG. 20 is a view in top plan of a combination support or frame and lock or wedge of an eighth exemplification of the invention; and

FIG. 21 is a view in vertical end elevation of the exemplification of FIG. 20.

Herefollowing, the simple term "frame" will be employed to designate the support or frame component in the case of a two-part construction or support or frame element in the case of a one-part construction which accommodates the "wedge," the simple term employed to designate the lock or wedge component in the case of a two-part construction or lock or wedge element in the case of a one-part construction which, upon flexure into interengaging position with the frame, provides the tensioned clamping or gripping force to hold a material between said frame and said wedge. It is to be understood, however, that the scope of the invention is not thereby limited, each term being intended to embrace all equiv-

alents which perform the same function for an analogous purpose.

With detailed reference first to FIGS. 1-6 of the drawings, which illustrate one embodiment of the invention, I have shown a two-part clasp or fastener comprising a frame, generally indicated by 10, and a wedge, generally indicated by 12, the two components being releasably interengageable in manner to appear.

Frame 10 of suitable plastic adapted for molding or other shaping, yet capable of sufficient set to prevent deformation or warpage in usage, is fabricated conveniently to define a rectangular or square or like configuration by virtue of a pair of spaced, parallel-disposed tension bars 14, 14 interconnected at opposite ends by spaced, parallel-disposed end tongues 16, 16 said tension bars and end tongues cooperantly defining a central aperture or opening 18 therethrough having a width indicated by a and a height indicated by b .

Alternatively, it is entirely conceivable that frame 10 may be fabricated from other than plastic, as for example metal.

Tension bars 14, 14 may be annular or flat in cross section, and end tongues 16, 16 may be likewise configured, and preferentially the latter will be of greater dimension than the former for reason shortly to be made obvious.

Wedge 12 is generally rectangular in configuration and of appropriate section and is formed from a resilient plastic sheet or molded material with an inherent ability to carry a torsional load. The wedge is provided with opposite faces 20 and 22, face 20 being generally planar, and opposite face 22 being gradually inclined toward its median line from each of its opposite ends to define a greater face-to-face thickness at the central region of the body than at the opposite ends.

The wedge is of an overall length, indicated by c , in excess of the vertical dimension b of central opening 18 of frame 10 and has a main body portion of a width, indicated by d , slightly less than the horizontal dimension a of the central opening of the frame so as to be nestably receivable therewithin and to be in central alignment therewith with respect to the longitudinal median of the frame.

Formed unitary with the wedge at its relatively thin upper and lower end edges are enlarged oppositely-facing upper and lower arcuate bevelled crescent-shaped or channelled pressure seats 24 and 26 respectively, each seat extending outboard of each of the side edges of the wedge thereby to define a pair of outwardly flared shoulders or locking tabs 28 on each face for holding the wedge in proper relationship relative to the frame upon assembly.

The pressure seats are desirably configured so as each to complement one of the end tongues of the frame. Conceivably configurations other than those shown and described are practical and are to be considered within the spirit of the invention.

The opposite edges of the pressure seats and shoulders are preferentially, though not obligatorily, provided with complementary radii so that tearing or other damaging of materials or articles coming into contact therewith is minimized, and the bottoms of the seats may be scored or knurled or notched or serrated in manner to provide roughened material-engaging surfaces to the ends of facilitating grip and eliminating material or article slippage when engaged.

Along the median line of face 22 a transverse inwardly-extending side-to-side V-groove 30 which may be intersected at its inner end by a short vertically-extending slit 32 is provided for purposes of facilitating relative flexure of the portions of the wedge upwardly and downwardly of said median line.

With reference to FIGS. 4, 5 and 6, showing the operational use of this embodiment, it is first to be explained that said embodiment, showing a system for supporting a slip strap and thereby the slip, is not necessarily restricted to such usage.

Wedge 12 is positioned in central opening 18 of frame 10 and is compressed by exerting converging compressive pressures with the thumbs or fingers placed upon face 22 at points on opposite sides of V-groove 30 so as to cause the opposite ends of the wedge to be slightly deflected toward each other thereby to allow the leading-in ends of the pressure seats 24 and 26 each to be lightly engaged with the inwardly-facing surface of the respective end tongue 16 and locking tabs 28 to overlie opposite sides of the adjacent tension bars 14. Release of such compression allows the opposite ends of the wedge to deflect away from each other thereby moving the pressure seats into frictional engagement with the inwardly-facing surfaces of the end tongues, with the wedge assuming a somewhat arcuate configuration on one side of the frame, identified for purposes of orientation as the rear side of the frame, with the wedge curving to the right, as shown in FIG. 5. Pressures of the thumb or finger now placed upon face 22 adjacent V-groove 30 will cause the wedge to swing relative to end tongues 16 of the frame by way of the pivoting of the pressure seats relative to their respective end tongues to the end that the wedge snaps from the FIG. 5 position, at the rear side of the frame, to the FIG. 6 position at the opposite or forward side with the V-groove closing and the wedge assuming a somewhat convex configuration relative to the plane of the frame, with the wedge curving to the left in locked interengagement with the frame. With such as fabric strips A and A' disposed within central opening 18 of the frame and passing between pressure seats 24 and 26 of the wedge and end tongues 16 of the frame, and with the wedge in the FIG. 6 position, the fabric strips are firmly locked between the wedge and frame with the wedge setting up a slight stress in the strips to effectively preclude movement thereof.

The fabric strips, which may be in the nature of straps or the like, may be readily adjusted by moving the wedge to the FIG. 5 position, relieving the stress on the strips and permitting their sliding movement relative to the wedge and frame to the desired position of adjustment, following which the wedge may be snapped back to the FIG. 6 position to once again lock the strips against movement relative to the frame and wedge.

The wedge is so dimensioned that its width d is slightly less than the width a of the central opening of the frame so as to permit ready reception of same therewithin as respects width and that its length c is slightly in excess of the length b of the central opening so as to permit reception of same within the central opening only when flexed as respects length.

To release the clasp, the wedge is pivoted rearwardly, from left to right as seen in FIG. 6, whereupon the wedge may be compressed to clear the seats from frictional engagement with the end tongues and thus permit its disengagement from the frame.

With the wedge in closed relation relative to the frame, the free ends of the wedge are in tight frictional contact with the frame to preclude access to the seats.

As will be appreciated, when the wedge is swung into the position shown in FIG. 6, with the seats frictionally engaged with the end tongues of the frame, the additional natural stressing action acts to facilitate the snapping of the wedge into and out of fabric-retaining position.

Due to the particular formation of the wedge, any movement of the person wearing the clasp will not cause it to become unclamped, it being necessary to pivot the wedge rearwardly between the sides of the frame before the wedge is released.

In the exemplification shown in FIGS. 7 and 8, I provide a unitary one-piece construction such as may be adapted for use in securing hosiery to ladies' foundation garments or the like.

Broadly speaking, and in a generic sense, this exemplification, interengageable with a material B, is similar to the FIGS. 1-6 embodiment save for the facts that a frame 110 is formed with a generally oval configuration

to present a smooth surface which will not tear or snag the material and for esthetic reasons and a wedge 112 is interconnected with frame 110 by means of an elongated flexible bifurcated web having legs 140, 140, one leg of which is continuous with and extends from an uppermost end tongue 116 of the frame and the other leg of which is continuous with and extends from an uppermost seat 124 of the wedge, the seats in this embodiment not being provided with ears.

The bifurcated web is provided with an extension 142 which may be centrally apertured as at 144 to permit the clasp to be suspended from such as a garter strap *c* fixed to a foundation garment (not shown).

In use, frame 110 is positioned against such as one surface of the material *B* and wedge 112 is disposed against the opposite surface of the material, being aligned with the frame by means of web 140. The wedge is then snapped into interengagement with the frame in the manner as already explained with reference to the FIGS. 1-6 form, to securely grip the material between the wedge and frame.

In FIGS. 9 and 10, another embodiment of a frame 210 is shown.

As in the case of the FIG. 1 embodiment, the frame may be fabricated from a rigid plastic to define a rectangular or square configuration by virtue of spaced, parallel disposed tension bars 214, 214 interconnected by spaced parallel disposed end tongues 216, 216, said tension bars and end tongues cooperantly defining a central opening 218 therethrough.

One of the end tongues 216 may be provided with a mating end tongue 217 extending parallel therewith and spaced therefrom so as to define by means of a pair of spaced connecting side arms 219 a slot 221 for use in suspending a strap or the like from the frame, access to said slot being allowed by means of a diagonally disposed slot 223 through end tongue 217, thereby facilitating removal of the strap for replacement purposes or repair.

In FIGS. 11 and 12, another embodiment of a wedge 212 is shown.

As in the case of the FIGS. 2-3 embodiment, wedge 212 is generally rectangular in configuration and is formed from a resilient plastic sheet material. The wedge is provided with opposite faces 220 and 222, face 220 being generally planar and opposite face 222 being gradually inclined toward its median line from each of its opposite ends so as to define a greater face-to-face thickness at the central region than at the opposite ends.

Formed unitary with the wedge at its upper and lower end edges are enlarged oppositely-facing upper and lower generally arcuate or crescent-shaped or channelled pressure seats 224 and 226 respectively, each pressure seat being both offset and canted relative to the vertical plane defined by face 220 and each extending outboard of each of the side edges of the wedge to define a pair of locking tabs 228 on each face.

By such canting and offsetting of the pressure seats, an improved vertical alignment of the main body portion and pressure seats of the wedge is obtained when the wedge is snapped into operative position.

Along the median line of face 222 a transversely-extending side-to-side V-groove 230 is provided which extends inwardly from the outer surface and merges at its base with a generally triangulate groove 232 for purposes of facilitating relative flexures of the wedge. Such a V-groove and triangulate groove construction could be employed in any of the locking wedges of the invention in lieu of the slit as shown.

In the FIG. 13 showing, the frame of FIGS. 9 and 10 and the wedge of FIGS. 11 and 12 are shown in cooperating relationship with a material or article *D* therebetween and with such as a strap *E* or the like passing through slot 221 and draped over end tongue 217, and wherein wedge 212 is positional in central opening 218 of frame 210 and

is then compressed by pressure of the thumbs or fingers placed upon face 222 to permit pressure seats 224 and 226 each to lightly engage material or article *D* adjacent the inwardly facing surface of the respective end tongue 216 and locking tabs 228 to overlies tension bars 214 with the wedge being disposed rearwardly of the frame and having assumed a somewhat arcuate configuration and curving to the right relative to the plane of frame 210. Relief of pressure of the thumbs or fingers causes the pressure seats of the wedge to seat relative to the material or article *D* and relative to end tongues 216 at which time the wedge may be snapped from a position rearwardly of the frame to the FIG. 13 position forwardly thereof, at which moment V-groove 230 is closed and the wedge curves slightly to the left as seen in FIG. 13, compressing the material being secured.

With material or article *D* disposed within central opening 218 of frame 210 and passed between the wedge and the end bars of the frame and the wedge in the FIG. 13 position, the material or article is held tightly with the wedge setting up a mild tension therein.

In another exemplification in FIGS. 14 and 15, I have shown a form of clasp or fastener useful in such as home laundries when and as it may be desirable to secure articles of clothing together such as in pairs or to code them in any manner for purposes of denoting ownership. Likewise it may have application in merchandising areas when and where it may be desired to use same as price or information tags.

This embodiment is again generally similar to the embodiment of FIGS. 7 and 8 with the exception that an oval frame 310 and a correspondingly oval wedge 312 are interconnected by an elongated flexible plastic web 340 extending between an end tongue 316 of the frame and one edge of a seat 324 of wedge 312, the entire assemblage being molded as a single unit.

In use, frame 310 is positioned against the outermost surface of the outermost article of a plurality of articles and wedge 312 is disposed against the outermost surface of the innermost article, being aligned with the frame by web 340. The wedge element is snapped into engagement with the frame in manner as already explained with reference to the embodiments of FIGS. 1-13 to securely grip the articles, or two articles may be secured together by interlocking the frame webs 340, utilizing one fastener on each article.

If desired, upon assembly, the wedge element may be fused at the point of the V-groove 330 as by heat or adhesive so as to lock the member in situ, once assembled, as in the case of price tags and the like.

In another exemplification in FIGS. 16 and 17, I have shown another form of clasp or fastener useful in connection with the work of such as commercial laundry or dry cleaning establishments.

This embodiment is generally similar to the embodiment of FIGS. 7 and 8 with the exception that a frame 410 of oval configuration and a correspondingly oval wedge 412 are interconnected by an elongated flexible bifurcated plastic web having legs 440, 440, one leg of which is continuous with and extends from a lowermost end tongue 416 of the frame and the other leg of which is continuous with and extends from a lowermost seat 426 of the wedge, the entire assemblage being molded as a single unit.

In use, the frame is positioned against one surface of the laundry or drycleaning item and the wedge is disposed against the opposite surface thereof, being aligned with the frame element by the web. The wedge is now snapped into engagement with frame element in manner as already explained with reference to the form shown in FIGS. 1-15 to securely grip the piece.

The web may have molded or embossed thereon identifying indicia or it may have such a surface as to accept markings.

In another exemplification in FIGS. 18 and 19, I have

shown another form of clasp or fastener useful in connection with the hanging of curtains or draperies.

This embodiment is generally similar to the embodiment of FIGS. 7 and 8 with the exception that a frame 510 of rectangular configuration and a correspondingly shaped wedge 512 are interconnected by an elongated flexible plastic web 540 which extends between an uppermost end tongue 516 of the frame and an edge of an uppermost seat 524 of the wedge to define a loop 541, the entire assemblage being molded as a single unit.

In use, the frame element is positioned against one surface of a curtain and the wedge is disposed against the opposite surface of the curtain, being aligned with the frame element by the web, the loop of which is draped over a curtain rod or the like (not shown). The wedge is now snapped into engagement with the frame in the manner as already explained with reference to the form shown in FIGS. 1-17 to securely grip the curtain.

Inversion of the embodiment permits use of the defined loop 541 to accept the rod or other suspension device. Preferentially, being used for curtains or draperies, the frame and locking wedge elements will be given an elongated configuration as shown so as to blend with the folds of the curtains or draperies being supported and the web will likewise be elongated so as to allow a loop of sufficient dimension as to accommodate the rod or other suspension device.

In another exemplification in FIGS. 20 and 21, I have shown another form of clasp or fastener useful in connection with the work of such as supporting or securing sheeting such as tarpaulins for land or water vehicles, tenting, swimming pool covers, and the like, therewith realizing elimination of ropes, gussets, grommets and the like.

This embodiment is generally similar to the embodiment of FIGS. 7 and 8 with the exception that a frame 610 of generally rectangular configuration and a correspondingly shaped wedge 612 are interconnected by an elongated bifurcated flexible plastic web having legs 640, 640, one leg of which is continuous with and extends from a lowermost end tongue 616 of the frame and the other leg of which is continuous with and extends from a lowermost seat 626 of the wedge, the entire assemblage being molded as a single unit.

The web is provided with a reinforced opening 641 therethrough for the securing thereof in any desired manner as by a rope or pin or the like passing therethrough.

In use, the frame is positioned against one surface of a tarpaulin or the like and the wedge is disposed against the opposite surface thereof, being aligned with the frame element by the web. The wedge is now snapped into engagement with the frame in the manner as already explained with reference to the forms shown in FIGS. 1-19 to securely grip the material.

I claim:

1. A material clasp having a frame and a deformable wedge, said frame having an opening therein, said frame having opposing pressure receiving seats at the opposite ends of said opening, said deformable wedge having spaced pressure seats for engaging said pressure receiving seats on said frame, and means on said deformable wedge for loosely engaging said pressure seats on said wedge with said pressure receiving seats on said frame when said deformable wedge is in said opening in said frame with said means on said deformable wedge at one side of said frame and for tightly engaging said pressure seat on said wedge with said pressure receiving seats on said frame when said means on said deformable wedge is at the opposite side of said frame.

2. A material clasp as recited in claim 1 in which said deformable wedge is a hinge.

3. A material clasp as recited in claim 1 in which said deformable wedge is a groove, said groove being open when

said pressure seats on said wedge are in loose engagement with said pressure receiving seats on said frame and being closed when said pressure seats are in tight engagement with said pressure receiving seats.

4. A material clasp comprising, a frame having an opening therethrough, a deformable wedge, opposing pressure-receiving seats on said frame at opposite ends of the opening, said wedge having spaced pressure seats for engaging said seats, means on said wedge for loosely engaging said seats when said wedge is disposed in the opening in said frame and at one side of said frame and for tightly engaging said seats when said wedge is disposed in the opening in said frame and at the other side of said frame.

5. A material clasp comprising:

- (a) a frame having a central opening therein;
- (b) a deformable wedge for insertion in the central opening of said frame; and
- (c) pressure seats on said wedge releasably engageable with said frame for holding the material relative to said frame and wedge and being offset and canted relative to the plane of said wedge.

6. A two-part material clasp comprising:

- (a) a frame having a central opening therein;
- (b) a deformable wedge insertable in the opening of said frame;
- (c) pressure seats on said wedge for releasable engagement with said frame for holding the material relative to said frame and wedge with said pressure seats being offset and canted relative to the main axis of said wedge.

7. A material clasp comprising:

- (a) a frame having a central opening therein;
- (b) a deformable grooved wedge for insertion in the central opening of said frame; and
- (c) pressure seats on said wedge releasably engageable with said frame part for holding the material relative to said frame and wedge, with the groove of said wedge including a V-groove and a triangulated groove at the base of the V-groove for minimization of binding and relief of torsional stress.

8. A material clasp having a frame and a deformable wedge, said frame having a central opening therethrough and end tongues at the opposite ends of the opening, said deformable wedge having pressure seats at its opposite ends for releasably engaging said end tongues on said frame, and means on said deformable wedge for loosely engaging said pressure seats on said wedge with said end tongues on said frame when said deformable wedge is in the opening in said frame and said means is disposed at one side of said frame and for tightly engaging said pressure seats on said wedge with said end tongues on said frame when said means is disposed at the opposite side of said frame.

9. A material clasp comprising:

- (a) a frame having a central opening therein and end tongues at the opposite ends of the opening;
- (b) a deformable toggle action wedge for insertion in the central opening of said frame; and
- (c) arcuately concave pressure seats on said wedge releasably engageable with the end tongues of said frame for holding the material relative to said frame and wedge, said wedge being grooved to facilitate its deformation.

10. A clasp as set forth in claim 9, wherein said frame part is provided with a supplemental opening therethrough for the suspension of material therefrom.

11. A material clasp comprising:

- (a) a frame having a central opening therein and end tongues at the opposite ends of the opening;
- (b) a deformable toggle action wedge for insertion in the central opening of said frame; and
- (c) arcuately concave pressure seats on said wedge releasably engageable with the end tongues of said frame for holding the material relative to said frame

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and wedge, including locking guides on said pressure seats.

12. A material clasp comprising:

- (a) a frame having a central opening therein and end tongues at the opposite ends of the opening;
- (b) a deformable toggle action wedge for insertion in the central opening of said frame; and
- (c) arcuately concave pressure seats on said wedge releasably engageable with the end tongues of said frame for holding the material relative to said frame and wedge, said frame and wedge being formed of resilient plastic, said wedge being grooved to facilitate its deformation.

13. A material clasp comprising:

- (a) a frame having a central opening therein;
- (b) a deformable toggle action wedge for insertion in the central opening of said frame;
- (c) arcuately concave pressure seats on said wedge releasably engageable with said frame for holding the material relative to said frame and wedge; and
- (d) a flexible web connecting said wedge to said frame and being bifurcated to provide a pair of legs with one of the legs being continuous with and connected

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to said frame and the other of the legs being continuous with and connected to said wedge.

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