Designation: D2050 – 11ε1

Standard Terminology Relating to Fasteners and Closures Used with Textiles[1]

This standard is issued under the fixed designation D2050; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

ε[1] NOTE—A term was added editorially in September 2016.

1. Scope

1.1 This terminology document covers terminology pertaining to items that are considered fasteners and closures such as buttons, hook and loop touch fasteners, snap fasteners and slide fasteners used in the manufacture of textile products, except for seams and stitches.

1.2 Section 3, Terminology, is categorized into four subsections, specific to the four areas of specialization under this document:

1.2.1 Relating to Buttons

1.2.2 Relating Hook and Loop Touch Fasteners

1.2.3 Relating to Snap Fasteners

1.2.4 Relating to Slide Fasteners

1.3 Terminology relating specifically to buttons covers special terms or special meanings used in the button industry. These apply only to sew-through flange and shank buttons.

1.3.1 The principal types of buttons defined in this terminology document are illustrated in Figs. 1-8.

1.3.2 These figures are descriptive only and are not intended to be restrictive as to design.

1.4 Terminology relating specifically to snap fasteners includes illustration of prong-ring attached fastener parts in Fig. 9.

1.4.1 These figures are descriptive only and are not intended to be restrictive as to design.

1.5 Terminology relating specifically to the principle parts of slide fasteners defined in this terminology are illustrated in Figs. 10-19.

1.5.1 These figures are descriptive only and are not intended to be restrictive as to design.

1.6 Terminology relating specifically to the textile joining structures (seams and stitches) are discussed in detail in Terminology D5646.

1.7 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

D123 Terminology Relating to Textiles

D1230 Test Method for Flammability of Apparel Textiles

D2061 Test Methods for Strength Tests for Zippers

D4846 Test Method for Resistance to Unsnapping of Snap Fasteners

D5169 Test Method for Shear Strength (Dynamic Method) of Hook and Loop Touch Fasteners

D5171 Test Method for Impact Resistance of Plastic Sew-Through Buttons

D5646 Terminology Relating to Seams and Stitches Used in Home Sewing

D7142 Test Method for Holding Strength of Prong-Ring Attached Snap Fasteners

3. Terminology

RELATING TO BUTTONS

assembled button, *n*—a decorative button consisting of combinations of similar or dissimilar materials, such as plastic and metal or metal and metal, which have been joined together by such processes as gluing, swedging or metal stamping.

bridge, *n*—the area of a button between the holes partially covered by the sewing threads with dimensions varying upon design and end use.

button, *n*—a knot, disc, or similar object which when forced through a narrow opening or buttonhole, fastens one part of a garment or other flexible substrate to another. **D5171**

[1] This terminology is under the jurisdiction of ASTM Committee D13 on Textiles and is the direct responsibility of Subcommittee D13.54 on Subassemblies. These definitions were developed in cooperation with the American Fastener and Closure Assn. Inc.

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[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

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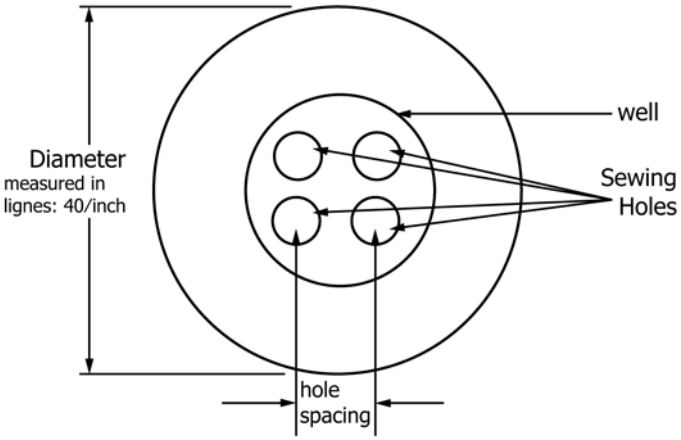

FIG. 1 Sew-Through Flange Button

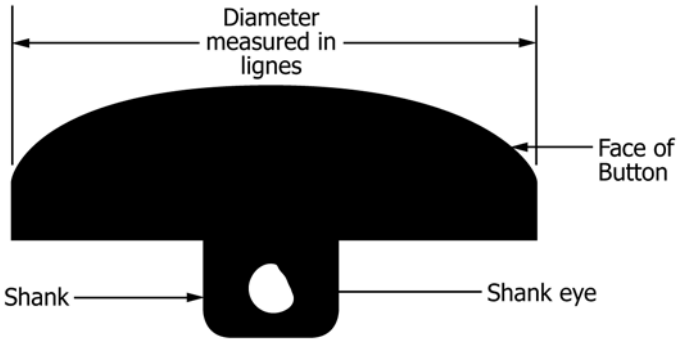

FIG. 2 Sew-Through Shank

FIG. 3 Pin Shank

FIG. 4 "U" Shank

FIG. 5 Stab or Screw Shank Staple Buttons

FIG. 6 Bell Shank Staple Buttons

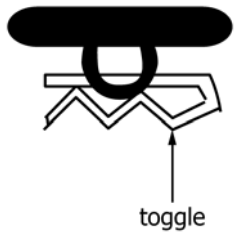

FIG. 7 Toggle Staple Attached Buttons

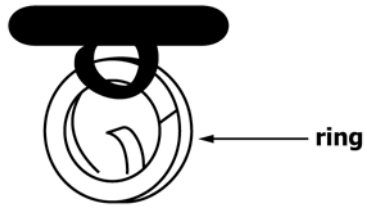

FIG. 8 Ring Staple Attached Buttons

DISCUSSION—Although the primary purpose of buttons is to serve as fasteners, buttons can also be used as decoration. D5171

centrifugal cast button, *n*—see **rotation cast button**.

compression molding, *n*—the method of molding a material already in a confined cavity by applying pressure and usually heat.

compression molded button, *n*—a button or button blank which is produced by compression molding thermoset-molding compounds such as urea-formaldehyde, melamine-formaldehyde, styrene-modified polyester, or any combination thereof. This method using styrene modified polyester resin, and having in its formulation pearlescent pigments which are oriented in the molding process, form a button or button blank which resembles natural shell.

drycleanable button, *n*—a button that can be solvent-cleaned without damage such as dissolving or loss of finish.

electroplated button, *n*—plastic buttons which have been made conductive by chemical treatment followed by the electroplating of metallic coatings.

DISCUSSION—*In buttons*, plastics such as polyester, acetate, ABS, melamine, and urea formaldehyde are the materials usually electroplated.

fabricate, *v—in buttons*, the conversion of a blank into a completed button.

DISCUSSION—Fabricating may require the turning of the face or back of the button with shaping tools, the drilling of sewing holes, and if required the grinding, slotting and any other decorative tooling or shank insertion which may be required.

face, *n—in buttons*, that portion which will be exposed after attachment to the substrate.

finish, *n—in buttons*, the surface condition or texture.

hole spacing, *n— on a button*, the distance from the center of one hole to another.

impact resistance, *n*—resistance to fracture under the sudden application of an external force. D5171

injection molded button, *n*—a method of forming which requires the filling of a cavity under pressure with polymer that will take the form of the mold when cooled.

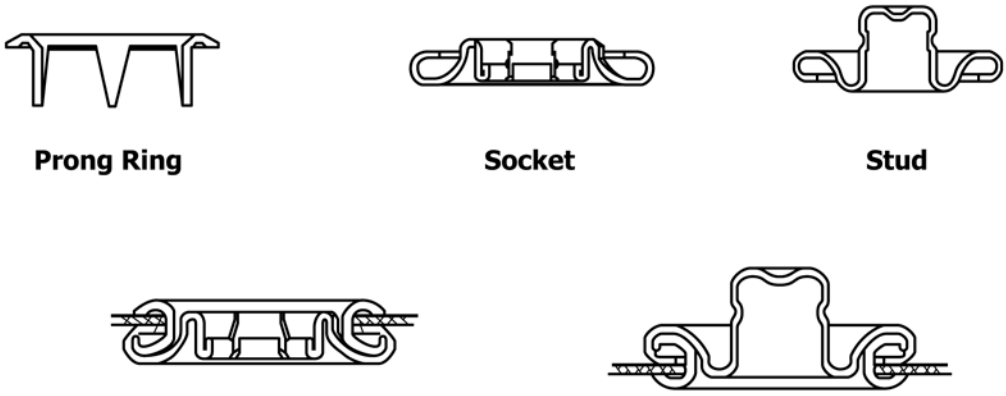

FIG. 9 Prong-ring Attached Fastener Parts

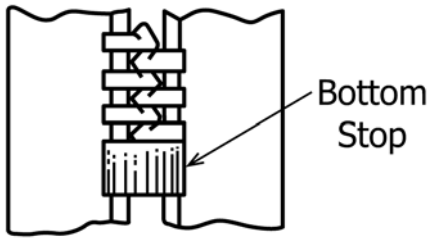

FIG. 10 Bottom Stop

FIG. 11 Bridge Stop

FIG. 12 Top Stop

injection molding, *n*—the process of forming a material by forcing it, in a fluid state under pressure, through a runner system (sprue, runner, gate(s)) into the cavity of a closed mold.

laundering, *n*—a process used to refurbish a textile product or parts thereof by *(1)* cleaning it in water containing a cleaning agent, and possibly bleach, *(2)* drying it, and *(3)* usually ironing or pressing it.

laundering, *n—in textile product care*, a process intended to remove soils by treatment (washing) with an aqueous detergent solution (and possibly bleach) and nominally including subsequent rinsing, extraction, and drying. **D1230**

launderability, *n*—the ability of a button to undergo multiple cycles of laundering without damage such as cracks or loss of finish.

ligne, *n*—a unit of measure for button; one ligne equals 0.635 mm (0.025 in.).

luster, *n—in buttons*, the degree of brilliance exhibited in pearlized or pearl buttons.

metal cast button, *n*—a button produced by the casting of molten metals and metal alloys into single-cavity or multiple-cavity molds.

DISCUSSION—Cast metal buttons can be electroplated and treated to produce other finishes.

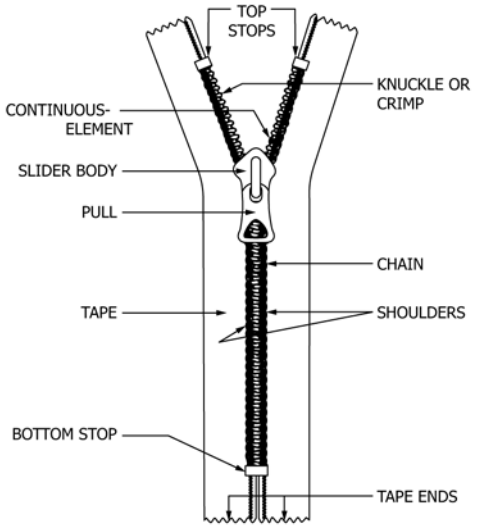

FIG. 13 Principle Parts of Slide Fasteners—Continuous Element Slide Fastener

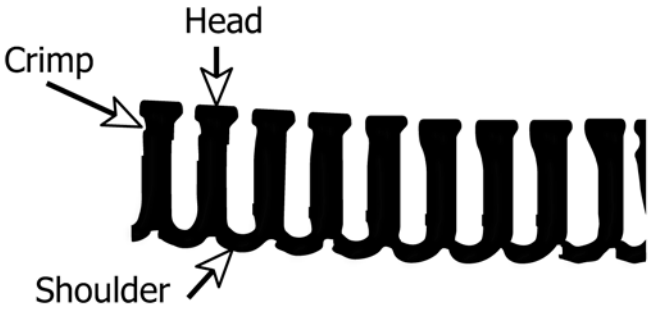

FIG. 14 Element (one side of element on sewn type CE fastener)

orientation, *n— in buttons*, the degree of order and spatial alignment of pearlescent pigment crystals internally or in a coating.

pearlized, *n—in buttons*, the addition of synthetic or natural pearlescent pigments to the button resin formulation or to the formulation used for coating.

DISCUSSION—Buttons exhibiting a pearl-like luster are made in either of two ways: *(1)* by incorporating pearlescent pigments into the resin formulation prior to casting or molding the button, or *(2)* by applying to the button an external coating containing pearlescent pigments either by spraying or dipping.

ring, *n—in buttons*, a split ring used to fasten a staple attached button to the substrate.

rod cast button, *n*—a button fabricated from a disk sliced or sawed from a cast rod of formulated styrene-modified polyester resin.

DISCUSSION—Formulated styrene-modified polyester resin is cast into aluminum or glass tubes which are sealed at one end. The flaccid or rigid rod formed after gelation is removed from the tube and sliced or sawed into button blanks. The blanks are then fully polymerized (cured) in hot brine solution and fabricated into buttons. This method is used for buttons which are mottled, and multicolored.

rotation cast button, *n*—a button fabricated from a disk blanked from a partially polymerized sheet formed in a rotating cylinder (also known as centrifugal casting and wheel casting).

DISCUSSION—A resin mix prepared with catalyzed, promoted, and pigmented styrene-modified polyester resin is poured into a rotating cylinder to form a sheet of uniform layer. When gelled (polymerized) the flexible sheet is sliced in the cylinder for removal from the cylinder. The flaccid sheet is dye cut, with a multi-cutter tool, into button blanks. The blanks are then cured, usually in hot brine solutions, and fabricated into buttons. This method is best for buttons produced with oriented pearlescent pigments, opaque white pigments, and multilayer combination of colors and mottles.

sewing hole, *n*—a hole in either the flange or shank of a button used to attach the button to the substrate by means of a needle and thread.

sew-through flange button, *n*—a button attached to one part of a flexible substrate by means of needle and thread passed through two or more holes in its flange and through the substrate. (Compare **sew-through flange button**.) (See Fig. 1.) **D5171**

sew-through shank button, *n*—a button attached to one part of a flexible substrate by means of needle and thread passed

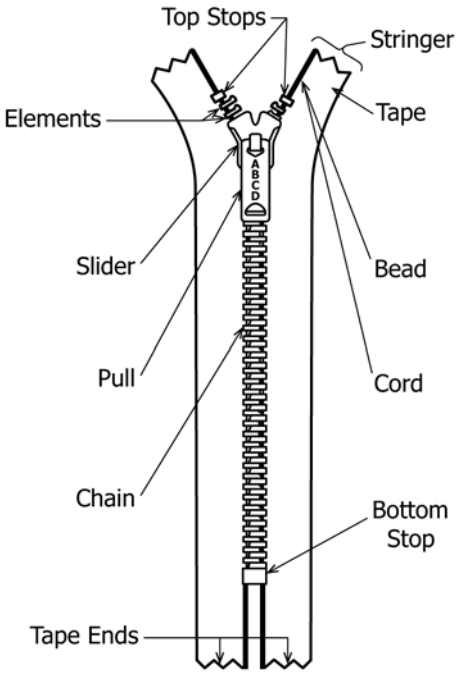

FIG. 15 Principal Parts of Slide Fasteners—Individual Element Slide Fasteners

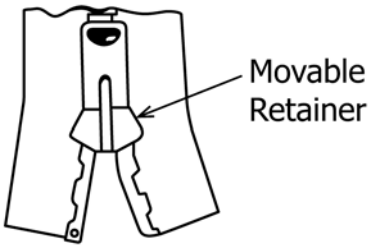

FIG. 16 Movable Retainer

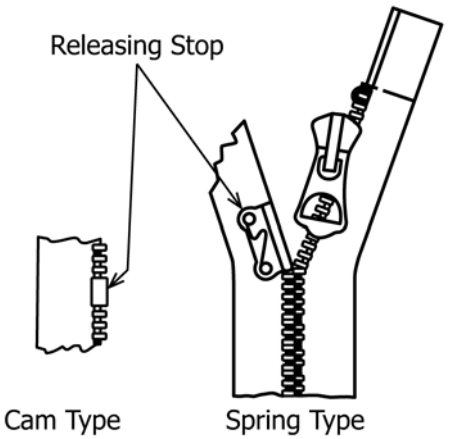

FIG. 17 Releasing Stops

through a hole or loop in the integral shank and through the substrate. (Compare **sew-through flange** button.) (See Fig. 2.) **D5171**

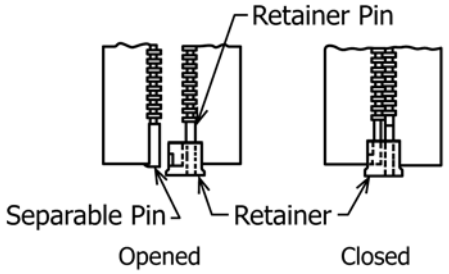

FIG. 18 Separating Parts

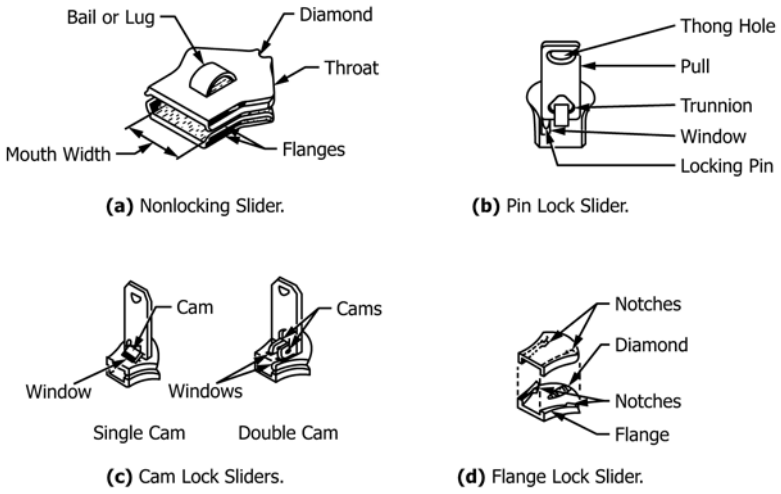

FIG. 19 Sliders

shank, *n—in buttons*, that part positioned perpendicular to and at the center back of the flange, and having a hole or loop for use in attaching the button to one part of a flexible substrate by means of a needle or thread, a ring, or a toggle. (See Figs. 3-6.)

shank eye, *n—in buttons*, the hole or loop in the shank of a sew-through shank button or the hole in the loop of the staple of a staple button.

sheet cast button, *n*—a button fabricated from a disk blanked from a cast sheet of formulated styrene-modified polyester resin.

DISCUSSION—The formulated polyester resin mix (see **rotation cast buttons**) is poured into gasketed open molds or between gasketed sheets of glass. After gelation the sheet is stripped from the mold and die cut into multiple button blanks. The blanks are then cured (fully polymerized) and fabricated into buttons. This method is best for buttons produced with oriented pearlescent pigments or opaque white pigments.

staple, *n—in buttons*, a looped metal shank securely positioned perpendicular to and at center back of the button flange for use in attaching the button to one part of a flexible substrate by means of a needle and thread, a ring, or a toggle.

toggle, *n—in buttons*, a clip used to fasten a staple button to the flexible substrate.

ring or toggle attached staple button, *n*—a button attached to one part of a flexible substrate by means of a ring or toggle rather than a needle or thread. The staple passes through an eyelet in the flexible substrate and is secured by the ring or toggle that passes through the staple eye. (See Fig. 7 and Fig. 8.

two-front button, *n*—a button in which the face and back shape are identical.

DISCUSSION—Identical faces allow for easier feeding of buttons in automatic sewing machines without the use of a well for side-selection.

vacuum plated button, *n*—a button that is flash metal coated in vacuum chambers and subsequently colored to simulate other metal finishes.

DISCUSSION—This is the least durable of metallized finishes.

well, *n—in buttons*, a recess in center of sew-through flange button that give aesthetics and identifies the face side.

wheel cast button, *n*—see rotation cast button.

RELATING TO HOOK AND LOOP FASTENERS

hook and loop fasteners, *n*—a touch fastener, comprised of two flexible mating strips, the surface of one mating strip being covered with tiny, stiff protrusions shaped liked hooks which engage the other mating strip which is covered with pliable loops. **D5169**

DISCUSSION—This fastener comprises a non-adhesive method of joining two materials where ready adjustment and removal is desirable and fastening is accomplished by pressing the mating strips together and separation is accomplished by simply peeling apart. Terms herein referring to hook and loop fastening systems shall be construed to include other types of touch fasteners in which the fastening strength in

the shear mode (that is, against forces applied in the plane of the fastener) substantially exceeds the fastening strength in the peel mode (that is, against forces applied perpendicular to the planes of the two components of the fastener). D5169

shear strength, *n*—the resistance to forces that cause, or tend to cause, two contiguous parts of a body to slide relatively to each other in a direction parallel to their plane of contact. D5169

RELATING TO SNAP FASTENERS

force, *n*—a physical influence exerted by one body on another which produces acceleration of bodies that are free to move and deformation of bodies that are not free to move. D7142

holding strength, *n—in snap fasteners*, the force required to separate the prong-ring from its attached mating part (socket or stud).

DISCUSSION—In this test method, a diametric force is applied which simulates the diametric biting or pinching of a child; however, in practice, the disengaging force used to unsnap a snap fastener is usually applied at the edge of the fastener. D7142

lateral holding strength, *n*—the force required to disengage a snap fastener resulting from a pull in the plane parallel to the material to which the snap fastener is attached. D4846

prong-ring type fastener, *n*—generic name for snap fasteners which use a multi-pronged ring to penetrate through fabric to mechanically set a matching socket on one side of a closure and to set a matching stud on the facing closure allowing the outer and inner closure facings to be snapped together. (See Fig. 9.) D7142

snap action, *n*—the force required to disengage a snap fastener resulting from a pull exerted perpendicular to the plane of material to which the snap fastener is attached. D4846

snap fastener, *n*—a device for attaching one material to another consisting of matching male and female parts, each of which is attached to a separate material so that the parts can be joined by a low compressive force and separated by a low perpendicular tensile force. D4846

socket, *n—in snap fasteners*, the female functional part of the fastener which engages with the stud part of the fastener to form the closure of two parts of the item on which the fastener is used. (See Fig. 9.) D7142

DISCUSSION—Prong-ring attached socket or stud snap fasteners are designed to be mechanically attached to garments or other items through the deformation interaction of the prong-ring with the socket or stud. Other forms of snap fasteners exist which may be attached to the foundation of the garment or other item by means of sewn threads or adhesive bonding. D7142

strength, *n*—the property of a material that resists deformation induced by external forces. D7142

DISCUSSION—In this standard, the deformation is the separation of the prong-ring from the socket or stud of a snap fastener. D7142

stud, *n—in snap fasteners*, the male functional part of a snap fastener which engages with, or snaps into, the mouth of the socket to form a closure of two parts of the item, or garment on which the fastener is used. (See Fig. 9.) D7142

DISCUSSION—See discussion for **socket**. D7142

RELATING TO SLIDE FASTENERS

automatic lock slider, *n*—a slider that provides involuntary, positive locking action on the chain when the pull is released restricting the movement of the slider to open the chain unless a stress is applied through the stringers that exceeds the locking capacity of the slider. D2061

bail, *n*—a portion or portions of the slider to which the pull or pulls are attached. (*Syn.* lug.)

bead, *n—in a individual element slide fastener*, an enlarged section on the inner edge of each tape formed by the cord and weft yarns of the tape used to attach the cord to the tape. The interlockable elements are affixed to the bead on an individual element slider fastener.

bead, *n—in a continuous element woven typeslide fastener*, a section of the tape where a cord and/or selected warp yarns are woven in place by the weft yarns of the tape to form a bead. The continuous element is secured to the tape by the bead simultaneously with the bead formation.

bead, *n—in a continuous element sewn type slide fastener*, a section of tape where a cord is attached to the tape by sewing. A cord is optional on continuous element sewn type slide fastener.

bottom assembly, *n*—the components of the lowermost part of a slide fastener that determines whether the slide fastener will be non-separable or separable. (See also " **non-separable**" slide fastener and "**separable**" slide fastener.)

bottom stop, *n*—a part affixed to both stringers immediately below, or over the chain, holding the two stringers together at the bottom and preventing the slider from leaving the chain when opening the chain. (See Fig. 10.)

bridge top stop, *n*—a part affixed immediately above the chain, holding the tops of two stringers together and preventing the slider from leaving the chain when closing the chain. See Fig. 11.)

cam lock slider, *n*—a slider that incorporates a curled projection or projections on the pull that extends through a window or windows to effect a locking action by pressing against the interlocking elements when the cam lock slider is in the locked position.

chain, *n*—the portion of a slide fastener, without its components (top stops, bottom stops, slider, separating parts, etc.), that is formed by alternately interlocking the elements of one stringer with the elements of an opposing stringer.

chain front, *n*—general reference of the slide fastener when viewed from the element side on a continuous clement fastener (CEF). For slide fastener designs where the chain is bilaterally symmetrical (such as an IEF for example) the front is generally referenced by the location of the slider tab, on a single tab slider, when opening or closing the chain.

chain thickness, *n*—the measurement from front to back of the chain. On a continuous element fastener (CEF) the measurement includes the tape and sewing threads on a sewn type

fastener or the tape and yarns for securing the element to the tape on a woven type fastener if these parts extend beyond the element.

chain width, *n*—the measurement between the shoulders of the interlocked elements or between the outermost edges of the bead if the bead extends beyond the elements.

connecting ring, *n*—a device used to secure a pull, having more than one component in its design, to the bail of the slider. The connecting ring may be of various shapes.

continuous element, *n*—a configured element formed continuously from a length of monofilament into the shape of a spiral (or coil), serpentine or other configuration. The continuous element contains heads formed along its length at the crimp for the purpose of interlocking. The side of the continuous element opposite the crimp is the shoulder and bears the slider flanges during opening and closing of the elements. (Compare **separate element**.)

continuous element slide fastener, *n*—CEF, can be a sewn type or a woven type slide fastener. The sewn type CEF is a slide fastener consisting of two continuously formed elements, each attached to one of the opposing edges of two tapes, which are engaged and disengaged by the movement of a slider. The continuous elements of the sewn type CEF are formed separately from the tapes and later joined by sewing. The CEF woven type slide fastener consists of two continuous elements formed integrally with the tape, which are engaged and disengaged by movement of the slider. (See Fig. 12.) (Compare **individual element slide fastener**.)

cord, *n*—a strand of multiple yarns either twisted, knitted or a combination. The cord is used in conjunction with weft yarns of the tape on an individual element fastener, the sewing thread on a continuous element sewn type fastener or the weft yarns and warp yarns (optional) on a continuous element woven type fastener to form a bead.

crimp, *n—as applied to a continuous element slide fastener*, the predetermined formation of the monofilament cross-section at the point where the continuous element is interlocked.

cut-off, *n*—the measurement of an individual element from the head side to the pocket side of the legs.

diamond, *n*—the wedge-shaped portion of a slider between the throats.

differential shrinkage, *n—in zippers*, the difference in longitudinal dimensional change between the zipper tape and the fabric to which the zipper is attached.

element, *n*—a device designed for interlocking, capable of being affixed along the edge of a tape. (Compare **continuous element** and **individual element**.) (See Fig. 13.)

exposed tape width, *n*—the part of the tape extending beyond the shoulders of the interlocking elements to the outer tape edge.

fixed retainer, *n*—a device permanently attached to the retainer pin at the bottom of one stringer. (See Fig. 14.)

DISCUSSION—The fixed retainer has an opening shaped to fit the separable pin. In order to close the chain, the separable pin is passed through the slider body and then inserted into this opening. The fixed retainer holds or retains the two stringers in alignment for interlocking. The fixed retainer is sometime referred to as the "box".

flange lock slider, *n*—a slider with notches in the flanges of the slider that block the shoulders of the elements when the stringers above the slider are pulled apart, thus preventing further separation of the chain.

flanges, *n*—the edges of the slider formed to contain the chain.

head, *n—on an individual element fastener*, the portion of an element that engages the pocket of another element on an opposing stringer of the fastener during closing.

head, *n—on a continuous element fastener*, partially flattened area of the monofilament located at the crimp. The flattened area forms a mushroom like shape on each crimp of the element that interlocks with the two heads of the element on an opposing stringer.

individual element fastener, *n*—a slide fastener consisting of two series of individually formed elements, each attached to one of the opposing edges of two tapes, which are engaged and disengaged by the movement of a slider. (See Fig. 15) (Compare **continuous element slide fastener**.)

knuckle—See preferred term **crimp**.

legs, *n*—the two portions of an individual element that affix the element to the bead.

lug—See preferred term **bail**.

mouth, *n*—the opening in a slider that receives the chain.

mouth width, *n*—the measurement between the slider flanges at the point where they bear against the shoulders of the interlocked elements.

movable retainer, *n*—a movable or sliding device performing a similar function to that of the fixed retainer, yet able to open and close the chain like to a slider. The purpose of the moveable retainer is to permit separation of the two stringers from the bottom, while the stringers remain connected at the top by the moveable retainer and slider on the slide fastener. (See Fig. 16.) A slider fastener with a moveable retainer device is sometimes referred to as a "Two Way" separable fastener and is able to function like a separable fastener when using the slider.

DISCUSSION—This device is not removable from the bottom of the slide fastener.

non lock slider, *n*—a slider that does not contain a locking mechanism allowing free movement of the slider to open the chain when a force is applied without restriction by a locking device. Sometimes referred to as a Free Slider.

nonseparable slide fastener, *n*—a slide fastener having two stringers that are permanently attached to each other at one or both ends. (See Fig. 16.) (Compare **separable slide fastener**.)

pin lock slider, *n*—a slider that incorporates a projection on the pull that fits between adjacent interlocking elements of a slide fastener when a pin lock slider is in the locked position.

pin, retainer—See **retainer pin**.
pin, separable— See **separable pin**.

pocket, *n*—the cavity of an element on an individual element fastener designed to receive the head of an element on an opposing stringer.

pull, *n*—a part connected to a slider by which the slider is operated.

QD—abbreviation for quick disassembly slide fastener. (See **releasing stop**.)

QR—abbreviation for quick disassembly slide fastener. (See **releasing stop**.)

ratchet lock slider, *n*—a slider with a locking mechanism that permits the slider to slip along the chain upon application of a predetermined force so as to prevent damage that would impair either the service or use of either the slider or chain.

releasing slider, *n*—a slider with a mechanical means for loosening the slider on the chain.

releasing stop, *n*—a device attached at or near the top of the stringer on the separable pin side which limits the travel of the slider at the open end of the chain under normal closing operations. (See Fig. 17.)

DISCUSSION—The slider may be forced beyond the releasing stop when added force is exerted towards the top of the slide fastener. Releasing stops are used on "quick release" or "quick disassembly" slide fasteners.

retainer, fixed—See **fixed retainer.**
retainer, movable— See **movable retainer**.
retainer pin, *n*—a tube-like element, similar to the separable pin, attached over the bead at the bottom end of the stringer opposite to the separable pin and that is designed to hold the fixed retainer in position.

reverse bail, *n*— *in a continuous element fastener*, configuration of a slider with a single bail where the bail is located on the opposite side of the slider body in relation to the flanges of the slider. Reversing the location of the bail, in this fashion, allows opening or closing of the elements with the back of the slide fastener facing the user with the fastener installed in the application.

scoop—Deprecated term, see **element**.
semi automatic lock, *n*—a slider that provides involuntary, positive locking action on the chain when the pull is in a designated position on the slider body restricting the movement of the slider to open the chain unless a force is applied that exceeds the locking capacity of the slider.

separable pin, *n*—a tube-like element attached over the bead at the bottom end of one stringer.

separable slide fastener, *n*—a zipper fitted with special components at the bottom of the chain, so as to permit complete disengagement and then reengagement of the two stringers. (See Fig. 14.) (Compare **nonseparable zipper**.)

separate element slide fastener, *n*—Deprecated term, see **individual element fastener**.

shear strength, *n*—the resistance to forces that cause, or tend to cause, two contiguous parts of a body to slide relatively to each other in a direction parallel to their contact.

shoulder, *n*—the bearing surface of an interlocking element by which the chain is contained inside the flanges of the slider. The shoulder is located on element opposite the head.

slide fastener , *n*—a closure device consisting of interlockable elements each attached to one of the opposing edges of two tapes and a movable part called a "slider" that spans the interlockable elements. When the slider is moved in one direction it causes the elements on one tape to interlock with the elements on the other tape, and when moved in the opposite direction causes the elements to disengage. The term slide fastener and zipper are used interchangeably.

slide fastener size, *n*—the chain width of the slide fastener is generally used as the basis for size identification.

slider, *n*—the part that opens a slide fastener when it is moved in one direction and closes the slide fastener when it is moved in the opposite direction. (See Fig. 19.)

slider, automatic lock— See **automatic lock slider**.
slider, cam lock—See **cam lock slider**.
slider, flange lock— See **flange lock slider**.
slider, non-lock—See **non-lock slider**.
slider, pin lock—See **pin lock slider**.
slider, ratchet lock— See **ratchet lock slider**.
slider, releasing— See **releasing slider**.
slider, reverse bail— See **reverse bail**.
slider, semi automatic lock— See **semi automatic lock**.
stop, *n*—the device at the top and bottom of the chain or stringer that prevents the slider from leaving the chain.

stop, bottom—See **bottom stop**.
stop, bridge top—See **bridge top stop**.
stop, releasing—See **releasing stop**.
stop, top—See **top stop**.
stringer, *n*—the tape, bead, and element assembly that constitutes one side of a chain.

subassemblies, *n*—any component or structure that is used in the assembly of textile product.

DISCUSSION—Subassemblies can be in the form of closures (for example, slide fasteners, buttons, hook and loop fasteners) or methods of joining (for example, stitches and seams).

tape, *n*—a strip of woven fabric, film or other material of various designs to which the bead and elements are attached along one edge. Attachment of the bead and elements to the tape may be achieved by sewing as in the CEF sewn type slide fastener, weaving integral with the tape as in the CEF woven type slide fastener, pressing, injection or other methods in order to form a stringer.

tape ends, *n*—the tape extending beyond the stops at either or both ends of the stringers.

tape width, exposed— See **exposed tape width**.
thong, *n*—part connected to a slider with a function like a pull. Thongs are usually a narrow woven fabric, cordage or other material and of various designs used in place of the pull.

When a thong is attached to the pull its function is primarily for added decoration and not for slider operation.

thong hole, *n—in zippers*, the opening at the end of a pull.

thread, element attaching—Deprecated term.

throats, *n*—the two openings in a slider that receive the stringers.

top stop, *n*—a part affixed between or immediately above the interlocking elements on either or both stringers, to prevent the slider from leaving the chain. (See Fig. 10.)

trunnions, *n*—the two pivots at the end of the pull that fit into the bail.

windows, *n*—the openings in pin-lock and cam-lock sliders through which the locking pin and cams, respectively, may extend.

zipper, *n*—a closure device consisting of interlockable elements each attached to one of the opposing edges of two tapes and a movable part called a "slider" that spans the interlockable elements. When the slider is moved in one direction it causes the elements on one tape to interlock with the elements on the other tape, and when moved in the opposite direction causes the elements to disengage. The term zipper and slide fastener are used interchangeably. (Compare **continuous element zipper** and **separate element zipper.**)

3.1 For other terms associated with textiles, refer to Terminology D123.

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