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SLIDE FASTENER CHAINS AND METHODS OF AND
CUTTERS FOR MANUFACTURING THE SAME

The present invention relates to slide fastener chains having one end shaped to facilitate threading thereof into a slider, and methods of and cutters for manufacturing such a slide fastener chain.

5 There have been known various individual or discrete slide fastener chains cut to lengths for consumer use and continuous slide fastener chains of factory-produced lengths not yet severed for individual use. The prior slide fastener chains, discrete or
10 continuous, have ends cut transversely as straight edges or notched to remove an intermeshing portion from coupling elements. When the slide fastener chain with the straight or flat end is threaded through a slide fastener slider, intermeshing coupling elements at the
15 flat chain end fail to separate easily or tend to remain coupled upon abutting against a connector post or separator in the slider. Another disadvantage experienced with the flat-end chain in the slider mounting process is that the chain end provides only

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a limited area that the operator can grip with nail tips, but not fingers, and hence the slide fastener chain cannot be pulled through the slider with a sufficient force. This slider mounting operation is
5 time-consuming, less efficient, and subjected to frequent yielding of defective slide fastener products.

The slide fastener chain with the notched end is more advantageous in that coupling elements can smoothly be disengaged by the separator in the slider, and
10 the notched end of the chain has a wider tape portion for the operator to grasp more firmly in threading the chain through the slider. However, where the coupling elements are sewn by sewing threads to the stringer tapes, coupling element debris on the notched end is
15 liable to loosen and thus become staggered as the sewing threads unravel, preventing the chain from being introduced into the slider. The sewing threads as they unravel when the stringer tapes are cut off can get caught between the slider and coupling elements,
20 making chain threading through the slider sluggish or impossible.

It is believed possible by means of the present invention to provide a slide fastener chain which has an end thereof shaped to facilitate manual threading
25 thereof through a slide fastener slider.

Another believed possibility of the present invention is to

provide a method of manufacturing such a slide fastener chain.

Still another believed possibility of the present invention is to provide a cutter for manufacturing such a slide
5 fastener chain.

According to a first aspect of the invention, there is provided a slide fastener chain, of a pair of interengaged stringers, readied for being threaded through a slider, comprising: a pair of first and
10 second stringer tapes having a pair of first and second longitudinally staggered ends, respectively, spaced longitudinally from each other by a distance greater than the length of the slider, said first stringer tape being longer than said second stringer tape; a pair of
15 first and second rows of continuous coupling elements mounted respectively on said first and second stringer tapes and including coupling heads intermeshing with each other, said first row of coupling elements including a series of coupling elements left uncoupled over
20 said distance and a predetermined number of coupling elements following said series of coupling elements beyond said second end and having their coupling heads cut off, whereby said predetermined number of coupling elements on said first stringer tape are separated from
25 said opposite intermeshing coupling elements on said second stringer tape.

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According to a second aspect of the invention, there is provided a method of manufacturing a slide fastener chain readied for being threaded through a slider, comprising the steps of: cutting a continuous slide fastener chain of a factory-produced length comprising a pair of interengaged stringers including a pair of stringer tapes supporting respectively thereon a pair of rows of continuous coupling elements having intermeshing coupling heads, transversely fully there-
across and between two opposite coupling elements mounted on said stringer tapes, thereby defining an end of the slide fastener chain; cutting one stringer transversely fully thereacross and between two opposite coupling elements mounted on said stringer tapes to define a transverse slit spaced longitudinally from said end of the slide fastener chain by a distance greater than the length of the slider; and cutting a predetermined number of coupling elements on the stringer tape of the other stringer longitudinally thereacross to define a longitudinal slit extending from said transverse slit remotely from said end of the slide fastener chain and cutting off the coupling heads of said predetermined number of coupling elements.

According to a third aspect of the invention,

(25)

there is provided a method of manufacturing a slide fastener chain
readied for being threaded through a slider, comprising the steps of:
cutting a continuous slide fastener chain of a factory-produced
length comprising a pair of interengaged stringers including a pair
5 of stringer tapes supporting respectively thereon a pair of rows of
continuous coupling elements having intermeshing coupling heads,
transversely fully across one stringer and between two opposed
coupling elements mounted on said stringer tapes, thereby defining
an end of said one stringer; cutting the other stringer transversely
10 fully thereacross and between two opposed coupling elements mounted
on said stringer tapes to define a transverse slit spaced
longitudinally from said end by a distance greater than the length
of the slider; and cutting a predetermined number of coupling
elements on the stringer tape of said one stringer longitudinally
15 thereacross to define a longitudinal slit extending from said
transverse slit remotely from said end and cutting off the coupling
heads of said predetermined number of coupling elements.

According to a fourth aspect of the invention there is
provided a method of manufacturing a slide fastener chain
20 readied for being threaded through a slider, comprising the steps
of: cutting a slide fastener chain of an individual length
comprising a pair of interengaged stringers including a pair of
stringer tapes supporting respectively thereon a pair of rows of
continuous coupling elements having intermeshing coupling heads,
25 transversely fully across one of said stringers and between two

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opposite coupling elements mounted on said stringer tapes to define a transverse slit spaced longitudinally from an end of the individual slide fastener chain by a distance greater than the length of the slide; and cutting a predetermined number of coupling elements on the stringer tape of the other stringer longitudinally thereacross to define a longitudinal slit extending from said transverse slit remotely from said end of the individual slide fastener chain and cutting off the coupling heads of said predetermined number of coupling elements.

According to a fifth aspect of the invention there is provided a cutter for cutting a slide fastener chain into a shape readied for being threaded through a slider, the slide fastener chain having a first width and comprising a pair of interengaged stringers, each having a second width and including a stringer tape supporting thereon a row of coupling elements, said cutter comprising: a first cutter blade having a length large enough to cover the first width of the slide fastener chain; a second cutter blade extending parallel to and spaced from said first cutter blade, and having a length substantially equal to the second width of one of the stringers; and a third cutter blade contiguous to and extending from the far side of said second cutter blade from said first cutter blade in perpendicular relation and located at one end of said second cutter blade substantially centrally of said first cutter blade in the longitudinal direction thereof, said third cutter blade having a

length large enough to cover a predetermined number of coupling elements.

According to a sixth aspect of the invention there is provided a cutter for cutting a slide fastener chain into a shape
5 readied for being threaded through a slider, the slide fastener chain comprising a pair of interengaged stringers, each having a width and including a stringer tape supporting thereon a row of coupling elements, said cutter comprising: a first cutter blade having a length substantially equal to the width of one of said
10 stringers; a second cutter blade extending parallel to and spaced from said first cutter blade, and having a length substantially equal to the width of the other stringer, said first and second cutter blades being positioned in staggered relation to each other; and a third cutter blade contiguous to and extending from
15 the far side of said second cutter blade from said first cutter blade in perpendicular relation and located at one end of said second cutter blade substantially centrally between said first and second cutter blades in the longitudinal direction thereof, said third cutter blade having a length large enough to cover a
20 predetermined number of coupling elements.

According to a seventh aspect of the invention there is provided a slide fastener chain, of a pair of interengaged stringers, readied for being threaded through a slider, comprising: a pair of first and second stringer tapes having a pair of first and second
25 longitudinally staggered ends, respectively, spaced longitudinally



from each other by a distance greater than the length of the slider,
said first stringer tape being longer than said second stringer
tape; a pair of first and second rows of discrete injection-
molded coupling elements mounted respectively on said first and
5 second stringer tapes and including coupling heads intermeshing
with each other, said first row of coupling elements including
a series of coupling elements left uncoupled over said distance,
a predetermined number of coupling elements of said first and
second rows following said series of coupling elements, beyond
10 said second end and having their opposite coupling heads cut
off, whereby said predetermined number of coupling elements on
said first and second stringer tapes are separated from said
opposited intermeshing coupling elements on each other's stringer
tape.

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The invention will be described by way of examples with reference to the accompanying drawings in which preferred embodiments of the present invention are shown by way of illustrative example. In the drawings:-

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Figure 1 is a fragmentary plan view of a continuous slide fastener chain having a factory-produced length;

Figure 2 is a fragmentary plan view illustrative

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of steps of cutting off an individual slide fastener chain from the continuous slide fastener chain shown in Figure 1;

5 Figure 3 is a fragmentary plan view showing steps of cutting off modified individual slide fastener chains from the continuous slide fastener chain of Figure 1;

10 Figure 4 is a fragmentary plan view of an individual slide fastener chain fabricated according to the present invention;

Figure 5 is a fragmentary plan view of another individual slide fastener chain fabricated according to the present invention;

15 Figure 6 is an enlarged cross-sectional view taken along line VI - VI of Figure 4;

Figure 7 is an enlarged cross-sectional view taken along line VII - VII of Figure 4;

20 Figures 8 to 10 are fragmentary plan views showing the manner in which the slide fastener chain of Figure 4 is threaded through a slide fastener slider;

Figure 11 is a perspective view of a cutter employed for fabricating the slide fastener chain shown in Figure 2;

25 Figure 12 is an exploded perspective view of the cutter illustrated in Figure 11;

Figure 13 is a perspective view of a cutter

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used for producing the slide fastener chain of Figure 3; and

Figure 14 is a perspective view of a cutter suitable for use in cutting an individual slide fastener chain according to the present invention.

Figure 1 shows a factory-produced slide fastener chain 10 of continuous length comprising a pair of interengaged stringers including a pair of stringer tapes 11, 12 supporting on and along their confronting longitudinal edges a pair of zigzag or meandering rows of continuous coupling elements 13, 14, respectively, secured to the stringer tapes 11, 12 by sewing threads 15. The rows of coupling elements 13, 14 are made of macromolecular synthetic resin, each composed of a coupling head 16, a pair of legs 17 extending therefrom and blending respectively into a pair of connectors 18 disposed one on each side of the stringer tape and joined to two adjacent coupling elements. The sewing threads 15 extend across the legs 17 adjacent to the connectors 18. Each of the coupling elements 13, 14 is thus of a U shape astride the edge of the stringer tapes 11, 12.

Figures 1 and 2 are illustrative of the manner in which the continuous slide fastener chain 10 is cut off by a method according to a first embodiment of the present invention. The slide fastener chain 10 is transversely cut off along a line A - A fully across

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the stringers including the stringer tapes 11, 12, transversely along a line B - B fully across one stringer including the stringer tape 12 and beyond the width of the row of coupling elements 14 mounted there-
5 on, and longitudinally along a line C - C across the legs 17 of several adjacent coupling elements mounted on the stringer tape 11 below the line B - B. The line B - B is positioned remotely from the line A - A in the longitudinal direction of the chain 10 by a distance M
10 longer than an overall length L of a slide fastener slider 70 (Figure 8). The distance M is also selected to provide a tape grip portion long enough for the operator to hold firmly with the fingers during a slider mounting operation (described below). Each of
15 the lines A - A, B - B should preferably be positioned between opposite coupling elements to avoid any damage by the cutter to adjacent coupling heads and legs. As shown in Figure 2, a severed slide fastener chain has a transverse edge a cut along the line A - A and
20 serving as an end 19 of the chain, a transverse slit b defined along the line B - B, and a longitudinal slit c defined along the line C - C and extending from the transverse slit b across at least two adjacent coupling elements 21, 22 beneath the slit b, i.e. on the far
25 side of slit b from edge a. The slit b goes as far as the coupling head 16 of the coupling element 21. The slit c extends alongside of the sewing threads 15 on the stringer tape 11 so as not to cut

the sewing threads 15 and is flanked by the coupling heads of coupling elements on the stringer tape 12.

In the illustrated embodiment, the slide c extends across four successive coupling elements on the stringer tapes 11, 12 to cut off the coupling heads 16 of the

5 coupling elements mounted on the stringer tape 11. Preferably, the length of the slit c should not exceed the length of side flanges 74, 75 of a slider 70 (Figure 9). When a plurality of such individual chains

10 are cut off from the chain 10, the chain of Figure 2 also has an end 20 opposite to the end 19, the end 20 being defined by severing the chain 10 across another line A - A to form the successive individual chain (not shown) beneath the chain shown in Figure 2. The

15 steps of cutting the slide fastener chain 10, or defining the edge a and the slits b, c, may be in any desired sequence.

According to a method of a second embodiment, the foregoing steps of cutting the slide fastener chain

20 are carried out at one time by a cutter 25 as shown in Figures 11 and 12. The cutter 25 comprises a first transverse cutter blade 26 having a length substantially equal to or larger than the width of the chain 10, a second transverse cutter blade 27 extending

25 parallel to and spaced from the first cutter blade 26 and having a length substantially equal to the width of the stringer tape 12, and a third longitudinal

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cutter blade 28 contiguous to and extending from the second cutter blade 27 in perpendicular relation, on the far side of blade 27 from blade 26. The

5 third longitudinal cutter blade 28 is located at one end of the second cutter blade 27 substantially centrally of the first cutter blade 26 in the longitudinal direction thereof. The first through third cutter blades 26, 27, 28 are removably fixed to a cutter block 30, and the second and third cutter blades 27, 28 are
10 reinforced by an auxiliary block 29 attached to the cutter block 30. When cutting the chain 10, the cutter 25 is lowered against the chain 10 to enable the first through third cutter blades 26, 27, 28 to define the edge a and the slits b, c, respectively.

15 Figure 3 shows a continuous slider fastener chain 33 cut according to a third embodiment of the present invention. The slide fastener chain 33 comprises a pair of interengaged stringers including a pair of stringer tapes 36, 37 supporting on and along their
20 confronting longitudinal edges a pair of rows of coupling elements 38, 39 of the zigzag type. The slide fastener chain 33 is transversely cut off along a line D - D fully across one stringer including the stringer tape 36 to define a slit d, transversely fully across
25 the other stringer including the stringer tape 37 and beyond the width of the row of coupling elements 39 mounted thereon to define a slit b, and longitudinally across the legs of several adjacent coupling elements

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below the slit b to define a slit c contiguous to the slit b,
on the far side of slit b from slit d. The slit b is
positioned remotely from the

slit d in the longitudinal direction of the chain 33
by the distance M longer than the overall length L of
the slide fastener slider 70 (Figure 8). Each of the
slits d, b should preferably extend between opposite
coupling elements 38, 39. The longitudinal slit c
extends at least across two adjacent coupling elements
41, 42 beneath the slit b. The slit b goes as far as
the coupling head of the coupling element 41. In the
illustrated embodiment of Figure 3, the slit c extends
across four successive coupling elements on the string-
er tapes 36, 37 to cut off the coupling heads of the
coupling elements mounted on the stringer tape 37.
The slits d, b, c may be formed in any desired sequence.

The slits d, b, c can be formed simultaneously,
according to a method of a fourth embodiment, by a
cutter 32 as shown in Figure 13, which comprises a
first transverse cutter blade 47 of a length substan-
tially the same as the width of the stringer tape 36,
a second transverse cutter blade 48 extending parallel
to and spaced from the first cutter blade 47 and having
a length substantially equal to the width of the
stringer tape 37, and a third longitudinal cutter blade 49
contiguous to and extending from the far side of the second
cutter blade 48 from the cutter blade 47 in perpendicular relation
thereto. The third cutter blade 49 is located at one end of the



second cutter blade 48 substantially centrally between the first and second cutter blades 47, 48 in the longitudinal direction thereof. The first through third cutter blades 47, 48, 49 serve to define the slits d,
5 b, c, respectively.

According to a method of a fifth embodiment, the step of defining the slit a (Figure 2) or the slit d (Figure 3) can be omitted from the methods of the above first through fourth embodiment, where an individual slide fastener chain is cut from a slide fastener
10 chain, not a continuous slide fastener chain, which is slightly longer than the individual slide fastener chain of a final length for consumer use. Only the slits b, c need to be defined in the discrete slide
15 fastener chain.

Figure 14 illustrates a cutter 50 for forming only the slits b, c at the same time. The cutter 50 has a first transverse cutter blade 51 having a length substantially equal to the width of the stringer tape
20 12 or 37, and a second longitudinal cutter blade 52 contiguous to and extending from the first cutter blade 51 for forming the slits b, c, respectively.

In the first, third and fifth embodiments, the individual slide fastener chain can be cut by a manual-
25 ly driven up-and-down cutter or a cutter drivable by a hand-held hammer. The straight edges on the first and second embodiments can be formed by a variety of

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cutters or scissors. When forming the edges and slits, the cutter blades of the cutters should be aimed at desired positions with efforts to avoid cutting of the sewing threads, which would otherwise tend to unravel and prevent the chain from being smoothly introduced through the slider, and also to avoid severance of the coupling heads of the coupling elements on the stringer tape 12, thus allowing the coupling elements on the tape 12 to be securely retained in position against wobbling motion and possible disengagement of the coupling elements.

An individual slide fastener chain, shown in Figure 4, readied for being threaded through a slider can be obtained by removing a stringer portion 23' from the stringer illustrated in Figure 2. The slide fastener chain of Figure 4 has a stringer portion 31 extending from the stringer tape 11 beyond a cut end 23 of the stringer tape 12 by the distance M. The stringer portion 31 includes a series of coupling elements 24 having no opposite or companion coupling elements to mate with. The two successive coupling elements on the stringer tape 11 below the coupling element 21 on the stringer tape 12 have their coupling heads 53, 54 cut off by the slit c and sandwiched by the adjacent coupling elements on the stringer tape 12.

As illustrated in Figure 9, the slider 70 has a generally Y-shaped guide channel including passages



71, 72 defined by the connector post or separator 73 and a pair of laterally spaced side flanges 74, 75. The slider 70 has a front end 76 on the separator 73 and a rear end 77, the length L of the slider 70 being
5 measured between the front and rear ends 76, 77.

When the chain of Figure 4 is to be threaded through the slider 70, the operator grips the stringer portion 31 with the thumb and forefinger of one hand and holds the slider 70 with the other hand. The
10 series of coupling elements 24 is then threaded from the rear end 77 of the slider 70 through the passage 71 until the rear end 77 reaches the coupling element 21 on the stringer tape 12 as shown in Figure 8. Then, the stringer tape 12 is gripped firmly at the end 23
15 thereof and spread apart from the stringer tape 11. The coupling element 21 and two successive coupling elements on the stringer tape 12 with the severed coupling heads 53, 54 held therebetween are easily and smoothly pulled into the passage 72 in the slider 70
20 without the risk of hitting and being blocked by the separator 73 in the slider 70, as shown in Figure 9. The rows of coupling elements on the stringer tapes 11, 12 are successively disengaged as they are guided through the passages 71, 72, respectively, as illus-
25 trated in Figure 10.

In the individual-length slide fastener chain thus produced, because the slit c extends alongside of

the sewing threads 15 on the longer stringer tape 11 (so as not to cut the same) to cut off the coupling heads 53,54 of the coupling elements on the longer stringer tape 11 rather than on the shorter stringer tape 12, such headless coupling elements and their companion coupling elements disposed adjacent to the second end 23 are prevented from becoming loose and thus staggered. This guarantees proper and easy threading of the individual-length slide fastener chain through a slider.

Figure 5 shows a slide fastener chain 55 of the "injection-molded" type, fabricated according to the present invention. The slide fastener chain 55 comprises a pair of stringer tapes 56, 57 supporting on their confronting longitudinal edges a pair of rows of discrete injection-molded coupling elements 60, 61, respectively, made of macromolecular synthetic resin. The stringer tapes 56, 57 have cut ends 62, 63 spaced from each other by the distance M, leaving a series of coupling elements 64 on the stringer tape 56. Four coupling elements 65, 66, 57 and 68 below the tape end 63 are left uncoupled by a slit c defined across these coupling elements substantially centrally therebetween. The slide fastener chain 55 can be threaded through the slider 70 in the same manner as that shown in Figures 8 through 10.

The present invention is also applicable to the

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manufacture of continuous or individual slide fastener chains having continuous rows of helically coiled coupling elements made of synthetic resin or series of discrete coupling elements of metal which are sewn,
5 molded, staked or otherwise mounted on stringer tapes.



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CLAIMS:-

1. A slide fastener chain, of a pair of inter-engaged stringers, readied for being threaded through a slider, comprising:

5 (a) a pair of first and second stringer tapes having a pair of first and second longitudinally staggered ends, respectively, spaced longitudinally from each other by a distance greater than the length of the slider, said first stringer tape being longer than said second stringer tape;

10 (b) a pair of first and second rows of continuous coupling elements mounted respectively on said first and second stringer tapes and including coupling heads intermeshing with each other, said first row of coupling elements including a series of coupling elements
15 left uncoupled over said distance and a predetermined number of coupling elements following said series of coupling elements beyond said second end and having their coupling heads cut off, whereby said predetermined number of coupling elements on said first stringer
20 tape are separated from said opposite intermeshing coupling elements on said second stringer tape.

2. A slide fastener chain according to claim 1, said coupling heads of said predetermined number of coupling elements being held by opposite intermeshing
25 coupling elements on said second stringer tape adjacent to said second end.

3. A slide fastener chain according to claim 1,



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said coupling heads of said predetermined number of coupling elements being cut off by a slit extending across the latter and flanked by the coupling heads of said opposite intermeshing coupling elements.

5 4. A slide fastener chain according to claim 3, said slit having a length substantially equal to the total width of four coupling elements.

10 5. A slide fastener chain according to claim 3, said slit extending from said second end in substantially perpendicular relation thereto.

15 6. A slide fastener chain according to claim 3, said first and second rows of coupling elements being secured to said first and second stringer tapes, respectively, by sewing threads, said slit extending alongside of said sewing threads.

7. A method of manufacturing a slide fastener chain readied for being threaded through a slider, comprising the steps of:

20 (a) cutting a continuous slide fastener chain of a factory-produced length comprising a pair of inter-engaged stringers including a pair of stringer tapes supporting respectively thereon a pair of rows of continuous coupling elements having intermeshing coupling heads, transversely fully thereacross and
25 between two opposite coupling elements mounted on said stringer tapes, thereby defining an end of the slide fastener chain;

 (b) cutting one stringer transversely fully



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thereacross and between two opposite coupling elements mounted on said stringer tapes to define a transverse slit spaced longitudinally from said end of the slide fastener chain by a distance greater than the length
5 of the slider; and

(c) cutting a predetermined number of coupling elements on the stringer tape of the other stringer longitudinally thereacross to define a longitudinal slit extending from said transverse slit remotely from
10 said end of the slide fastener chain and cutting off the coupling heads of said predetermined number of coupling elements.

8. A method according to claim 7, said cutting steps (a), (b) and (c) being effected simultaneously.

15 9. A method of manufacturing a slide fastener chain readied for being threaded through a slider, comprising the steps of:

(a) cutting a continuous slide fastener chain of a factory-produced length comprising a pair of
20 interengaged stringers including a pair of stringer tapes supporting respectively thereon a pair of rows of continuous coupling elements having intermeshing coupling heads, transversely fully across one stringer and between two opposed coupling elements mounted on
25 said stringer tapes, thereby defining an end of said one stringer;

(b) cutting the other stringer transversely fully thereacross and between two opposed coupling



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elements mounted on said stringer tapes to define a transverse slit spaced longitudinally from said end by a distance greater than the length of the slider; and

- 5 (c) cutting a predetermined number of coupling elements on the stringer tape of said one stringer longitudinally thereacross to define a longitudinal slit extending from said transverse slit remotely from said end and cutting off the coupling heads of
- 10 said predetermined number of coupling elements.

10. A method according to claim 9, said cutting steps (a), (b) and (c) being effected simultaneously.

11. A method of manufacturing a slide fastener chain readied for being threaded through a slider,
- 15 comprising the steps of:

- (a) cutting a slide fastener chain of an individual length comprising a pair of interengaged stringers including a pair of stringer tapes supporting respectively thereon a pair of rows of continuous coupling
- 20 elements having intermeshing coupling heads, transversely fully across one of said stringers and between two opposite coupling elements mounted on said stringer tapes to define a transverse slit spaced longitudinally from an end of the individual slide fastener chain by
- 25 a distance greater than the length of the slider; and

(b) cutting a predetermined number of coupling elements on the stringer tape of the other stringer longitudinally thereacross to define a longitudinal



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slit extending from said transverse slit remotely from said end of the individual slide fastener chain and cutting off the coupling heads of said predetermined number of coupling elements.

5 12. A method according to claim 11, said cutting steps (a) and (b) being effected simultaneously.

13. A cutter for cutting a slide fastener chain into a shape readied for being threaded through a slider, the slide fastener chain having a first width and
10 comprising a pair of interengaged stringers, each having a second width and including a stringer tape supporting thereon a row of coupling elements, said cutter comprising:

15 (a) a first cutter blade having a length large enough to cover the first width of the slide fastener chain;

(b) a second cutter blade extending parallel to and spaced from said first cutter blade, and having a length substantially equal to the second width of
20 one of the stringers; and

(c) a third cutter blade contiguous to and extending from the far side of said second cutter blade from said first cutter blade in perpendicular relation and located at one end of said second cutter blade substantially centrally of said first cutter
25 blade in the longitudinal direction thereof, said third cutter blade having a length large enough to cover a predetermined number of coupling elements.

14. A cutter according to claim 13, including



a block to which said first through third cutter blades are removably fixed.

5 15. A cutter for cutting a slide fastener chain into a shape readied for being threaded through a slider, the slide fastener chain comprising a pair of inter-engaged stringers, each having a width and including a stringer tape supporting thereon a row of coupling elements, said cutter comprising:

10 (a) a first cutter blade having a length substantially equal to the width of one of said stringers;

15 (b) a second cutter blade extending parallel to and spaced from said first cutter blade, and having a length substantially equal to the width of the other stringer, said first and second cutter blades being positioned in staggered relation to each other; and

20 (c) a third cutter blade contiguous to and extending from the far side of said second cutter blade from said first cutter blade in perpendicular relation and located at one end of said second cutter blade substantially centrally between said first and second cutter blades in the longitudinal direction thereof, said third cutter blade having a length large enough to cover a predetermined number of coupling elements.

25 16. A slide fastener chain, of a pair of interengaged stringers, readied for being threaded through a slider, comprising:

(a) a pair of first and second stringer tapes having a pair of first and second longitudinally staggered-ends,



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respectively, spaced longitudinally from each other by a distance greater than the length of the slider, said first stringer tape being longer than said second stringer tape;

(b) a pair of first and second rows of discrete
5 injection-molded coupling elements mounted respectively on said first and second stringer tapes and including coupling heads intermeshing with each other, said first row of coupling elements including a series of coupling elements left uncoupled over said distance, a predetermined number
10 of coupling elements of said first and second rows following said series of coupling elements, beyond said second end and having their opposite coupling heads cut off, whereby said predetermined number of coupling elements on said first and second stringer tapes are separated from said opposite
15 intermeshing coupling elements on each other's stringer tape.

17. A slide fastener chain according to claim 16, said coupling heads of said predetermined number of coupling elements being cut off by a slit extending across the latter substantially centrally between said first and second coupling
20 element rows and also extending from said second end in substantially perpendicular relation thereto.
