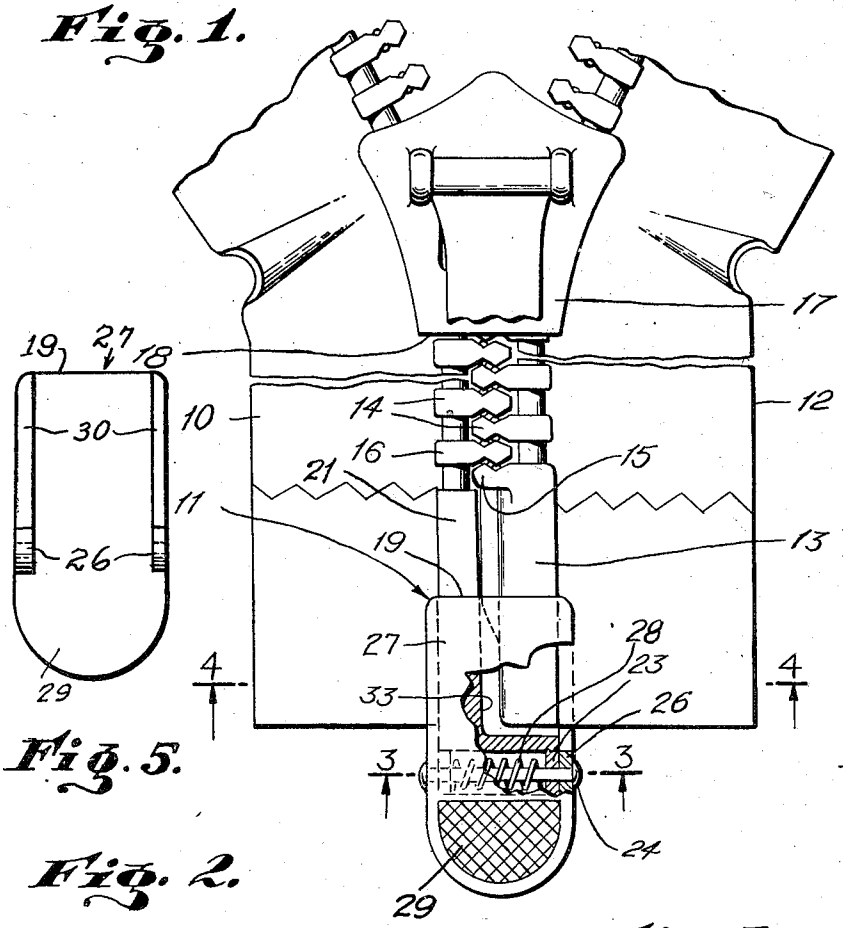
Feb. 26, 1946. D. MARINSKY 2,395,677

TWO WAY SEPARABLE COUPLING FASTENER STRINGERS

Filed April 16, 1943

Fig. 1.



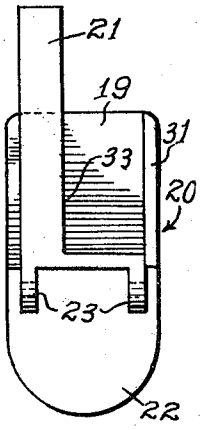


Fig. 5.

Fig. 6.

Fig. 2.

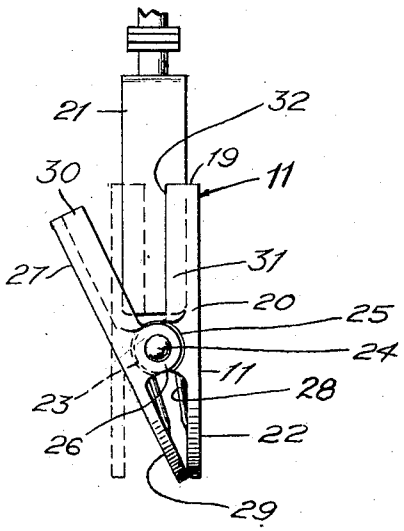
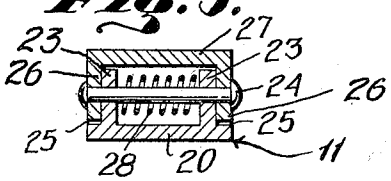


Fig. 3.



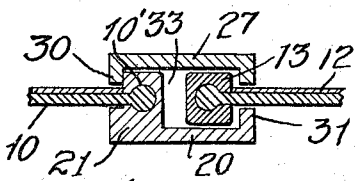


Fig. 4.

INVENTOR
DAVIS MARINSKY
BY
Gifford Leidle & Burgess
ATTORNEY

Patented Feb. 26, 1946 2,395,677

UNITED STATES PATENT OFFICE

2,395,677

TWO-WAY SEPARABLE COUPLING FASTENER STRINGERS

Davis Marinsky, Bronx, N. Y., assignor of one-half to Louis H. Morin, Bronx, N. Y.

Application April 16, 1943, Serial No. 483,241

9 Claims. (Cl. 24—205)

This invention relates to separable end stop couplings of separable fastener stringers, in which complete separation of the stringers is provided in two distinct manners, one with the slider adjacent the end stop and the other laterally through the end stop when the slider is in spaced relation to said stop. More particularly, the invention relates to an end stop of the class described wherein the box portion of the coupling is composed of relatively movable parts manually separated, against the action of a spring, to facilitate lateral insertion and removal of the pin part of the coupling with respect to the box part. Still more particularly, the invention relates to a separable end stop coupling, wherein the box part is composed of hingedly coupled portions having projecting finger piece ends facilitating swinging movement of said hinged portions in attachment and detachment of the pin part against the action of a spring mounted on the hinge pin or pintle of said portions.

The novel features of the invention will be best understood from the following description when taken together with the accompanying drawing, in which certain embodiments of the invention are disclosed, and in which the separate parts are designated by suitable reference characters in each of the views, and in which:

Fig. 1 is a plan view of one form of coupling which I employ arranged upon one end of fastener stringers with part of the construction broken away and in section.

Fig. 2 is a side view of the device shown in Fig. 1 omitting one of the stringers and showing parts in a different position.

Fig. 3 is a cross section on the line 3—3 of Fig. 1.

Fig. 4 is a cross section on the line 4—4 of Fig. 1.

Fig. 5 is a plan view showing the inside of a pivoted member of a bottom stop.

Fig. 6 is a plan view showing the inside of the member of the bottom stop which is directly attached to one of the stringer tapes.

In Fig. 1 of the drawing, 10 represents part of a stringer of a separable fastener, to which the coupling or box part 11 is secured by casting it thereon, for example. 12 represents the corresponding end of another stringer to which the pin part 13 is secured, both of these parts being arranged adjacent end links or scoops 14 of the stringers. The pin part 13 includes a link engaging portion 15 to engage the end link 16 of the stringer 10.

At 17 is shown a slider movable along the stringers 10 and 12 to couple and uncouple the links 14 thereof and when the slider or the end 18 thereof abuts the end wall 19 of the box part, the pin part 13 is free to be pulled through the slider 17 in uncoupling the stringers in the customary manner.

The box part 11 comprises an elongated body 20 projecting at one end in a pin portion 21 having a channel 10a to receive the edge of stringer tape 10. The other end of the body projects in a finger piece portion 22. The body 20 adjacent the end 22 has spaced bearings 23 apertured to receive a pintle or pivot pin 24. The outer surfaces of the bearings 23 are recessed, as seen at 25 to receive projecting bearings 26 on the latching member 27 of the box part. The pin 24 also passes through the bearings 26, as will be apparent.

Arranged on the pin 24, between the bearings 23, is a coil spring 28, one end of which engages the finger piece 22 and the other end of which engages the finger piece 29 of the latch 27. The other end of the latching body 27 has inwardly extending side flanges 30, which form a channel construction adapted to engage the pin 13, as well as the pin portion 21, when the latch 27 is in closed position, as indicated in dotted lines in Fig. 2 of the drawing. The latch 27 is held in closed position by the spring 28 and is moved into the open position, shown in full lines in Fig. 2, by movement of the finger piece 29 in the direction of the finger piece 22. It will be apparent that the entire end stop body structure simulates, in a manner, a clip construction.

The central portion of the body 20 also includes inwardly extending side flange 31 arranged in alinement with one flange 30 to engage the pin part 13. Between the flanges 30, 31, at one side of the box 11, is formed a channel 32 normally closed, as shown in dotted lines in Fig. 2, to prevent lateral displacement of the pin part 13. However, by swinging the member or body 27 into open position, as shown in full lines in Fig. 2, the pin part 13 will be free to pass outwardly and laterally through the side of the coupling 11 and through the then enlarged channel 32. The body 20 is recessed, as seen at 33, to receive the pin part 13 for the normal insertion and removal of the pin part when the slider 17 abuts the wall 19.

For purposes of description, the separate members of the box part 11 are what might be termed the socket forming part of the coupling and may be said to comprise relatively movable jaw members. In considering the structure disclosed in Figs. 1–4 inclusive, these jaw members

may be further described as tongs, not necessarily in the sense of gripping the pin or other part, but rather in the sense of housing the same and thus retaining the same within boundaries of the jaw or tong members.

Having fully described my invention what I claim as new and desire to secure by Letters Patent is:

1. In end stop couplings of the type described, a pin part adapted to be attached to one stringer of a pair of separable fastener stringers, a box part adapted to be fixed to the other stringer and comprising a body and a latch member hingedly supported on said body, a spring engaging said body and member and adapted to bias the latter toward closed operative position, said body and member coacting to collectively form a channel for receiving said pin part of the coupling and means extending from said member and body for moving said member into position facilitating lateral separation of the pin part from said box part.

2. In end stop couplings of the class described, a pin part adapted to be attached to one stringer of a pair of separable fastener stringers, a box part adapted to be fixed to the other stringer and comprising a body and a latch member hingedly supported on said body, said body and member coacting to collectively form a channel adapted to receive said pin part of the coupling, means extending from said member and body for moving said member into position facilitating lateral separation of the pin part from said box part, and a spring between said body and said member normally supporting said member in closed operative position.

3. In end stop couplings of the class described for connecting two stringers, a pin on one stringer, a box part comprising a first member fixed to the other stringer and a second member pivoted to the first member and movable toward and from the same, means on said members which collectively form between adjacent surfaces of said members a channel for receiving said pin to retain said pin against lateral displacement from the box part, and a pivot mounting on said second member connecting the second member to the first member whereby said second member may be manually swung on said pivot mounting to free the pin for lateral displacement from the box part, the pivot mounting comprising a pintle supported in spaced bearings on said members and a coil spring on said pintle, said spring engaging said members to normally support the same in position to operatively engage the first named part.

4. In end stop couplings of the class described for connecting two stringers, a pin on one stringer, a box part comprising a first member fixed to the other stringer and a second member pivoted to the first member and movable toward and from the same, means on said members which collectively form between adjacent surfaces of said members a channel for receiving said pin to retain said pin against lateral displacement from the box part, the pivot mounting comprising a pintle supported in spaced bearings on said members, a coil spring on said pintle, said spring engaging said members to normally support the same in position to operatively engage the first named part, and said members having finger piece portions projecting beyond said pintle.

5. In end stop couplings of the class described, a socket part comprising hingedly coupled members, each member being of channel cross sectional form at common ends thereof in defining the socket of said part, the other ends of said members projecting to form finger pieces facilitating relative movement of the first named ends of said members, a spring between said members for urging the first named ends of said members toward each other, and one of said first named members including a pin portion of channel cross sectional form for mounting of said member on a stringer tape.

6. In end stop couplings for stringers, a socket part secured to one stringer, a pin part on the other stringer insertable into the socket part, said socket part comprising two hinged members coacting to collectively form channel means normally retaining the pin part against lateral displacement from the socket part, and a spring engaging both members and biased to urge said members in normally supporting said members into operative position.

7. In end stop couplings for stringers, a socket part secured to one stringer, a pin part on the other stringer insertable into the socket part, said socket part comprising two hinged members coacting to collectively form channel means normally retaining the pin part against lateral displacement from the socket part, a spring engaging both members and biased to urge members in normally supporting said members into operative position, and a finger piece on each member for moving the same into open position against the action of said spring.

8. In end stop couplings for separable fastener stringers, a socket forming part secured to one stringer adjacent end links thereon, said part comprising spaced opposed wall members defining the socket of said part, at least one of said wall members having at its outer edge an inturned retaining flange extending in the direction of said socket, and said flanged wall member having a hinged mounting whereby the flanged wall member is movable toward and from the other of said wall members in opening and closing said socket.

9. In end stop couplings for separable fastener stringers, a socket forming part secured to one stringer adjacent end links thereon, said part comprising spaced opposed wall members defining opposed walls of the socket of said part, at least one of said wall members having at its outer edge an inturned retaining flange extending in the direction of said socket, said flanged wall member having a movable mounting whereby the same is movable toward and from the other of said wall members in opening and closing said socket, a spring arranged between said wall members and engaging the flanged wall member in normally supporting said member in closed position, and means comprising a finger piece arranged beyond the limits of the socket of said part for moving the flanged wall member into open position.

DAVIS MARINSKY.