

[54] SLIDER ASSEMBLY DEVICE

[75] Inventor: Koichi Kawakami, Toyama, Japan

[73] Assignee: Yoshida Kogyo Kabushiki Kaisha,
Tokyo, Japan

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29/200 P

[56] References Cited

UNITED STATES PATENTS

3,629,926 12/1971 Maeda..... 29/207.5 SL

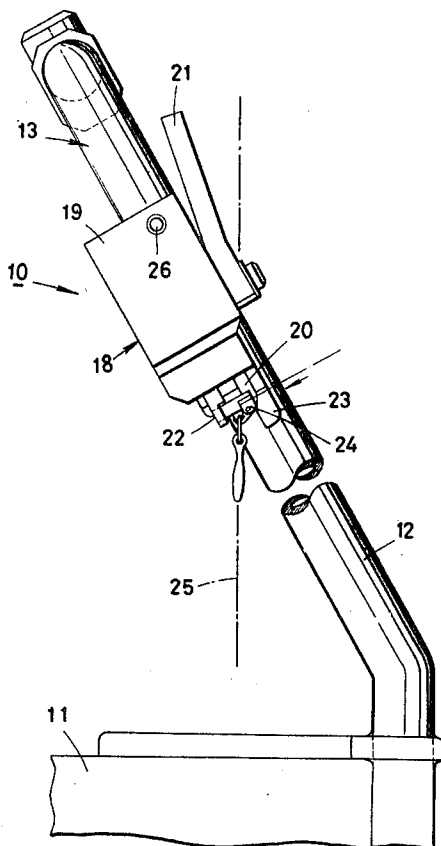
Primary Examiner—Thomas H. Eager

Attorney, Agent, or Firm—Bucknam and Archer

[57] ABSTRACT

A slider holder assembly for mounting sliders on a slide fastener chain particularly of a concealed type is provided with a support structure adapted to support thereon a slider holder in such a manner that the holder is angularly oriented at will to permit the operator to manipulate the fastener chain through sliders with utmost ease. The slider holder is adjustable also in height above the floor to match with the height of individual operators.

4 Claims, 2 Drawing Figures



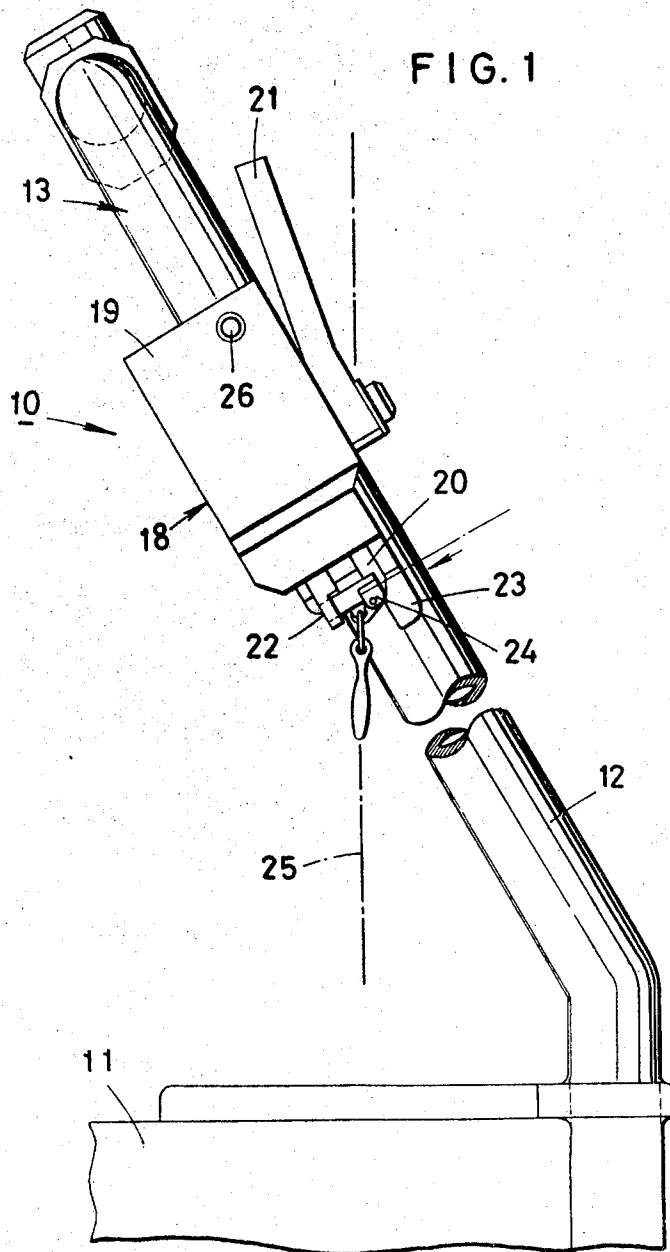
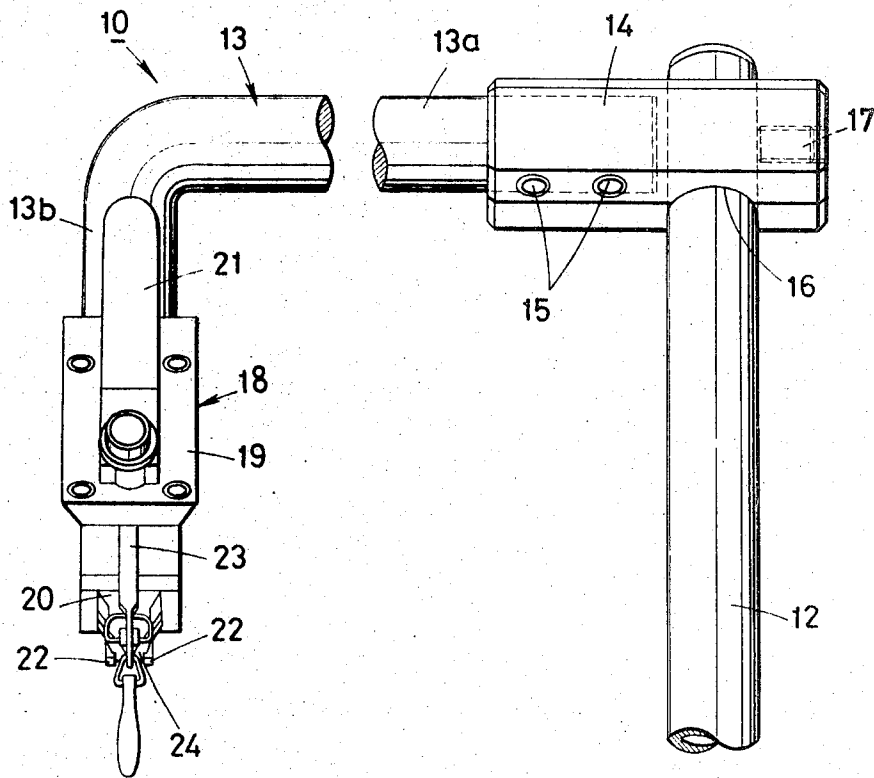


FIG. 2



SLIDER ASSEMBLY DEVICE

BACKGROUND OF THE INVENTION

This invention relates to improvements in and relating to assembling devices for a slide fastener chain and has particular reference to a device for assembling sliders on a concealed slide fastener chain which has been attached to garments or the like.

In the assembly of sliders on a concealed type of fastener chain attached to a garment or the like, two opposed stringers of the fastener chain are usually held with the rows of fastener elements exposed upwardly thereon and are manipulated through respective guide channels in the slider which has been set face down in position with its pull tab vertically suspended, so that the slider is mounted astride of the rows of fastener elements.

Fastener assembling devices heretofore known for carrying the above operation into practice comprised a slider holder designed to assume an operative position perpendicular to the floor or working table and hold a slider in a horizontal plane with its guide channels disposed parallel to the floor. The fatal disadvantage of such conventional devices is that the operator is required to stoop down or sit up with his eyes directed closely towards the entrance of the slider with as much caution as he would pay when passing a thread through a sewing needle. This is extremely cumbersome and time-consuming, and if it is performed repeatedly over an extended length of time, the operator is burdened with fatigue and hence the speed of assembly is retarded considerably. These difficulties are augmented where the fastener chain attached to a bulky garment is handled.

SUMMARY OF THE INVENTION

Whereas, it is the primary object of the present invention to provide an improved assembling device for a concealed slide fastener chain which incorporates means for adjusting the position of the slider holder in harmony with the constitution of individual operators so that the operator can accomplish the assembling work with utmost ease and with a minimum burden of fatigue, whereby the rate of assembly is increased manifold.

With this and other objects in view, the invention will be understood from the detailed description of a preferred embodiment taken in connection with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

In the accompanying drawings:

FIG. 1 is a side elevation of an assembling device embodying the invention; and

FIG. 2 is a front elevation of the same.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

There is shown an assembling device 10 embodying the invention which comprises a supporting bed 11 secured to a floor (not shown), a post 12 fixedly connected at one end to the bed 11 and tilted forwardly, a crank arm 13 having a first portion 13a extending at right angles to said post and a merging second portion 13b running parallel thereto and a slider holder 18 for releasably holding sliders for assembly on a fastener chain (not shown). The connection between the post

12 and the arm 13 is made through the agency of a socket 14 shown in FIG. 2. The one end of the crank arm 13 is inserted coaxially into the socket 14 and adjustably connected by a first setscrew or setscrews 15. The socket 14 has a bore 16 through which the post 12 is inserted and is telescopically connected by a second setscrew 17 to the socket 14.

At the free end of the crank arm 13 is mounted, as by a bolt 26, the slider holder 18 of the construction described in a copending application wherein the holder 18 is comprised of a housing 19, a carriage 20 vertically movable therein by means of a handle 21, a pair of opposed clamping jaws 22 pivotally connected to the carriage 20 and a retaining bar 23 projecting downwardly from the housing 19 opposite to the jaws 22, the arrangement being that a slider 24 is releasably held between the jaws 22 and retained by the bar 23. No further explanation of the details of the slider holder 18 is required, as it does not form positive part of the invention. Any other forms of slider holders may be used according to the invention.

In the operation of the device 10 according to the invention, the level of the slider holder 18 above the floor is first adjusted by means of the second setscrew 17 to the working position of the operator standing or sitting, whichever the case may be, wherein he can most freely use his hands to pull a slide fastener chain forwardly through the clamped slider and then the angle of the holder 18 relative to a perpendicular line 25 is adjusted by means of the first setscrew or setscrews 15 to whatever degrees the operator finds most suitable to facilitate the threading of the fastener chain through the slider 24. The said angle of the slider holder 18 is variable with the height of individual operators but is normally such that the operator can in his most natural and comfortable working posture see clear through the guide channels in the slider through which the fastener chain is introduced.

Another advantage of this angular disposition of the slider holder 18 is that the path of the fastener chain is oriented downwardly so that the operator can advance the chain through the slider with a minimum of effort which would otherwise be painstaking particularly if the chain had been previously attached to a heavy, bulky garment fabric.

It will be understood that the sequence of adjusting the first and second setscrews 15 and 17 is optional and these setscrews together may be freely adjusted until the operator finds his optimum working position.

What is claimed is:

1. An assembling device for a concealed slide fastener which comprises a support bed, a post extending therefrom, a crank arm carrying a slider holder for holding sliders while assembling the fastener chain therethrough, and means for adjusting the angular position of said slider holder such that the guide channel of the slider when mounted thereon can be seen through from a downwardly tilted angle.

2. The assembling device as defined in claim 1 wherein said post is forwardly tilted.

3. The assembling device as defined in claim 1 wherein said crank arm is connected at one end to said post and carrying said slider holder at the other free end, said crank arm having a first portion extending at right angles to said post and a merging second portion running parallel thereto.

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4. The assembling device as defined in claim 1 wherein said adjusting means comprises a socket connecting said crank arm to said post, a first setscrew running radially of said socket to connect the same to said first portion and adapted to adjust the angular position 5

of said slider holder relative to a perpendicular line, and a second setscrew running axially of said socket to connect the same to said post and adapted to telescopically adjust the level of said slider holder.
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