June 17, 1958 W. F. AUBUCHON 2,838,831

HOLDERS FOR SLIDE FASTENERS

Filed Feb. 2, 1956

Fig. 1

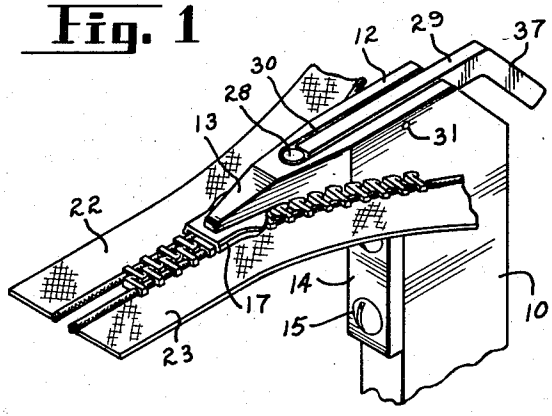


Fig. 2

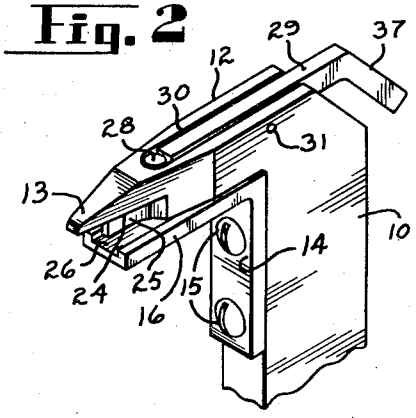


Fig. 4

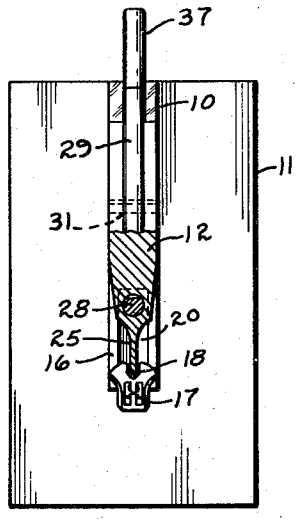


Fig. 3

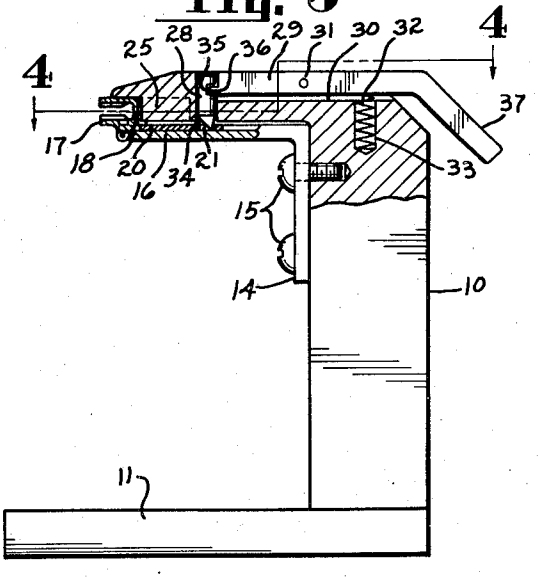
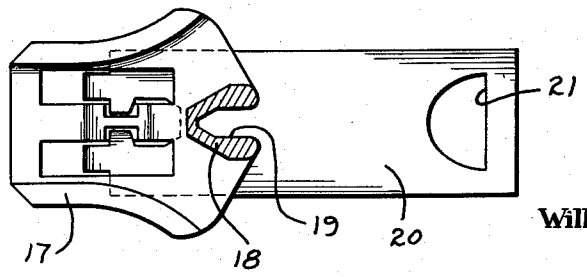


Fig. 5



INVENTOR
William F. Aubuchon
BY
H. J. Johnston
ATTORNEY

United States Patent Office 2,838,831 Patented June 17, 1958

2,838,831

HOLDERS FOR SLIDE FASTENERS

William F. Aubuchon, Jackson, Miss., assignor to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut

Application February 2, 1956, Serial No. 563,047

4 Claims. (Cl. 29—284)

This invention relates to an assembly machine for use in the manufacture of slide fasteners generally known as zippers, and particularly to a fixture or clamping device for holding the slider while the zipper chain is being assembled therethrough.

In the art of manufacturing zippers the fastener elements are attached to the beaded edge of the tape and a pair of such zipper stringers either before or after they are attached to parts of a garment are assembled by pulling through the usual slider.

The primary object of this invention is to provide a simple, effective and inexpensive holding device to hold the slider while the operator is free to use both hands in pulling the zipper stringers through the slider.

In prior slider holders the devices were rather cumbersome in requiring that some part of the machine be manually operated before the slide could be assembled into the machine, and also the character of the holder was such as to interfere with the free use of the operator's hands in manipulating the zipper stringers through the guide channels in the slider member.

Another object of my invention is to provide a holder into which the slider can be quickly assembled without the necessity of requiring the operator to manipulate any part of the holder and wherein the holder will not interfere with the free use of the operator's hands in assembling the zipper chain through the clamped slider.

With this and other objects in view the invention will be readily understood from the following detailed description of one preferred embodiment shown in the accompanying drawing, wherein:

Fig. 1 is a perspective view of a fixture for holding a slider while the zipper stringers are being threaded therethrough.

Fig. 2 is a similar view with the slider and zipper stringers removed.

Fig. 3 is a side view of the fixture with the upper portion in section.

Fig. 4 is a partial plan and sectional view taken along the line of 4—4 of Fig. 3, and

Fig. 5 is a sectional view through a slider showing the upper half with the pull tab attached thereto.

Referring now to the drawing, the numeral **10** refers to a standard having a base pedestal **11** by means of which the fixture may be mounted upon any suitable support. The upper end of the standard **10** is formed with an integral offset arm **12** terminating in a reduced nose **13** positioned a substantial distance from the standard **10**. An L-shaped bracket **14** is attached to the forward face of the standard **10** as by screws **15** and is formed with a support arm **16** extending parallel to and in spaced relationship to the offset arm **12**.

A typical slider **17** is shown which my fixture is adapted to hold. This slider has a connecting neck **18** at one end formed with an exterior indented recess **19**. The slider **17** is provided with the usual pull tab **20** hingedly

connected thereto and having an opening **21** adjacent its free end. The slider **17** functions in the well known manner to connect and disconnect the interfitting elements of a pair of zipper stringers **22** and **23**.

The nose end **13** of the offset arm **12** is provided with an end recess **24** for receiving the slider **17** neck end first, and projecting into the recess is a longitudinal rib **25** formed as an integral part of the arm **12**. The rib **25** is adapted to project into the recess **19** of the slider neck **18** to stabilize the position of the slider during the asesmbly of the zipper stringers.

The upper surface of the support arm **16** is formed with a channel **26** in which is telescopically received the slider pull tab **20** when the slider is being assembled into the fixture. In order to hold the slider within the fixture a detent pin **28** is slidably mounted in the offset arm **12** and is operated by a lever **29** positioned in a longitudinal channel **30** in the upper end of said arm **12** and pivoted thereto as by pivot pin **31**. The lever **29** is normally urged in a counterclockwise direction by a coiled spring **32** retained in a socket recess **33** in the upper end of the standard **10**.

The lower end of the detent pin **28** has a beveled surface **34** facing toward the entrance end of the fixture. The entrance end refers to that end of the fixture where the slider is inserted. The detent pin **28** is held against turning by reason of the connection between said pin **28** and the lever **29** which specifically is a cross slot **35** in said pin engaged by a squared projection **36** on end of lever **29**. The spring operated lever **29** urges the detent pin **28** downwardly in its respective recess so that its sharp beveled end **34** normally rests against the upper end of the channel **26**. The outer end of the lever **29** is formed with a biased portion **37** that serves as a handle for operating said lever.

In the operation of this fixture the pull tab **20** of the slider is first telescopically inserted into the support arm channel **26** and when the free end of said tab **20** engages the beveled end **34** of the detent pin it will automatically force the latter upwardly against the influence of the spring urged lever **29** until the opening **21** in said pull tab aligns with the pin **28** whereupon said pin will automatically drop into said opening and lock the slider in position in the recess **24** in the offset arm **12** for holding the slider during the assembly of the zipper stringers therethrough. To release the slider it is only necessary to press downwardly on the handle portion **37** of the lever **29** which will withdraw the detent pin upwardly to release the pull tab and permit withdrawal of the zipper stringers with the attached slider.

It will be apparent that in having the slider supported in the offset arms a substantial distance from the support standard provides for considerable amount of free area about the held slider that makes it easier and allows for a faster operation in assembling the zipper stringer through the slider. This arrangement is particularly helpful when the garment sections are attached to the stringers.

Another advantage in expediting the assembly operation is that the slider can be inserted into the fixture without requiring the operator to operate any part of the device.

Minor changes in details and construction and arrangement of parts may be made without departing from the scope of the present invention as set forth in the appended claims.

I claim:

1. A fixture for holding zipper sliders while assembling zipper stringers therethrough and wherein the slider is formed with an exterior neck recess and has a pull tab

with an opening, said fixture comprising a support standard having an offset arm at its upper end, a bracket attached to said standard and having a support arm in spaced and parallel reltionship to said offset arm, said support arm having a channel in its upper surface for receiving said pull tab, said offset arm formed with a projection adapted to engage in said slider neck recess, and a spring-operated detent pin slidably mounted in said offset arm adapted to automatically snap into said pull tab opening as said pull tab is slidably assembled into said support-arm channel.

2. A fixture for holding zipper sliders while assembling zipper stringers therethrough and wherein the slider is formed with an exterior neck recess and has a pull tab with an opening, said fixture comprising a support standard having an offset arm at its upper end, a bracket attached to said standard and having a support arm in spaced and parallel relationship to said offset arm, said support arm having a channel in its upper surface for receiving said pull tab, said offset arm formed with a projection adapted to engage in said slider neck recess, a spring-operated detent pin slidably mounted in said offset arm adapted to automatically snap into said pull tab opening as said pull tab is slidably assembled into said support-arm channel, and a manually operated lever for releasing said spring-operated detent pin to allow removal of the assembled zippers.

3. A fixture for holding zipper sliders while assembling zipper stringers therethrough and wherein the slider is formed with an exterior neck recess and has a pull tab with an opening, said fixture comprising a support standard having an offset arm at its upper end, a bracket attached to said standard and having a support arm in spaced and parallel relationship to said offset arm, said support arm having a channel in its upper surface for receiving said pull tab, said offset arm formed with a projection adapted to engage in said slider neck recess,

a spring operated detent pin slidably mounted in said offset arm and having a beveled surface at its inner lower end facing toward the entrance end of the fixture, said beveled surface adapted to be contacted by the leading edge of the pull tab to urge said pin upwardly over the end of said tab as the latter is being inserted into the fixture, said pin automatically snapping into the pull tab opening when said pin registers with the opening for holding the slider during assembly of the stringers therethrough.

4. A fixture for holding zipper sliders while assembling zipper stringers therethrough and wherein the slider is formed with an exterior neck recess and has a pull tab with an opening, said fixture comprising a support standard having an offset arm at its upper end, a bracket attached to said standard and having a support arm in spaced and parallel relationship to said offset arm, said support arm having a channel in its upper surface for receiving said pull tab, said offset arm formed with a projection adapted to engage in said slider neck recess, a detent pin slidably mounted in said offset arm and having a beveled surface at its inner lower end, a manually operated lever pivoted in said support arm, means connecting said lever to said pin to prevent the latter from turning and hold the pin so that its beveled surface will be facing toward the entrance end of the fixture, and a spring element tensioning said lever to a position to normally hold the beveled end of the pin in contact with the channel upper surface.

References Cited in the file of this patent

UNITED STATES PATENTS

1,445,079	Hammond et al.	Feb. 13, 1923
1,776,394	Powell	Sept. 23, 1930
2,219,165	Nedal	Oct. 22, 1940
2,639,499	Meyers	May 26, 1953