

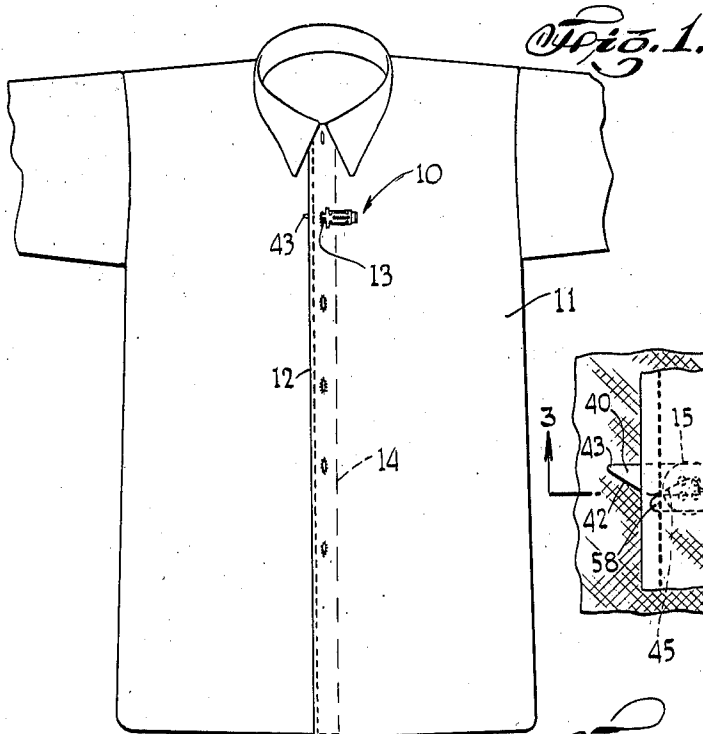
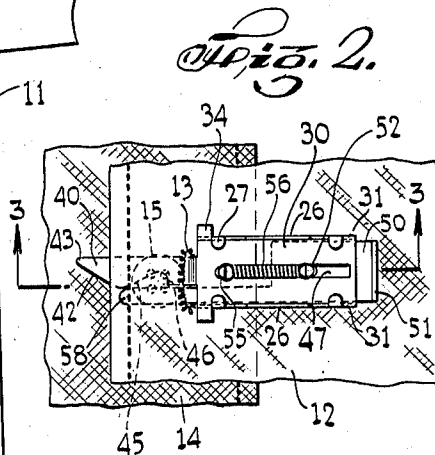
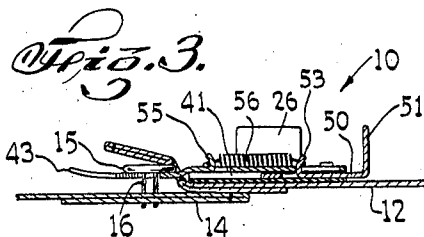
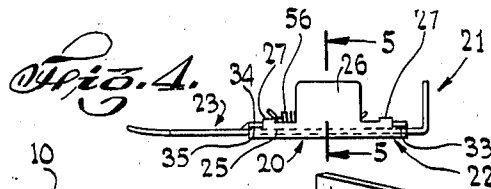
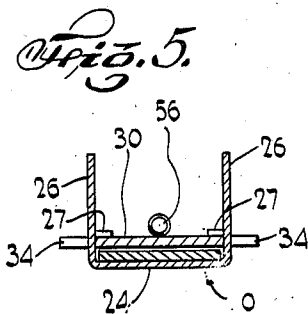
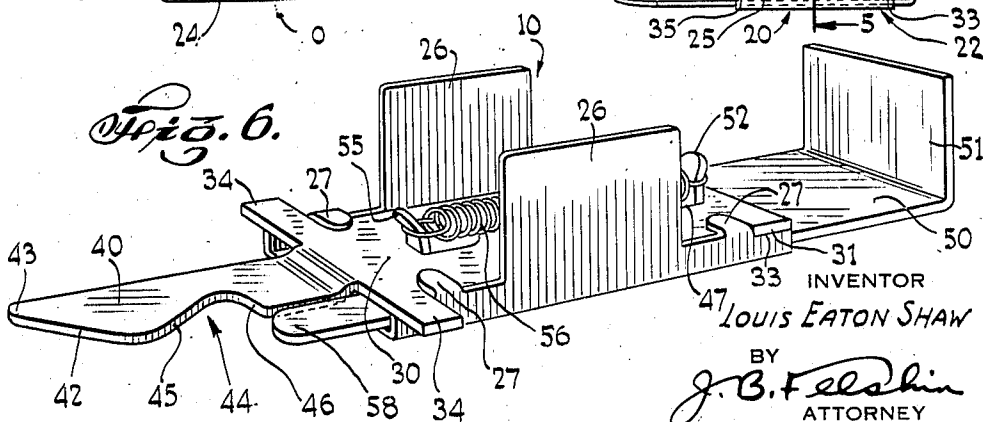
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SHIRT ALIGNING DEVICE

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2,347,133

SHIRT ALIGNING DEVICE

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15 Claims. (Cl. 24—239)

This invention relates to devices for retaining shirt fronts in aligned, unbuttoned condition while folding or finishing the shirt. It is particularly directed to a device for holding the portion of the shirt formed with buttonholes in proper overlying relation to the portion of the shirt carrying the buttons while leaving the shirt unbuttoned, so that the shirt may be properly folded or finished after laundering the shirt or while the shirt is in the factory.

An object of this invention is to provide a device of the character described having means insertable through a buttonhole and adapted to latch a button, by one simple manipulation or movement of the device in one direction, and release the button upon one simple manipulation or movement of a part of the device in another direction, and which shall yet hold the portion of the shirt carrying the buttons in proper relation to the portion of the shirt formed with the buttonholes without likelihood of accidental release of the device or opening up of the front of the shirt.

Another object of this invention is to provide a device of the character described having self-latching means adapted to latch the device to the thread which connects the button to the shirt, which latching means is adapted to remain in latched condition except upon retracting one portion of the device, whereby pull on the front portions of the shirt in opposite directions is ineffective to release the device.

Still another object of this invention is to provide a neat, strong and durable device of the character described which shall be relatively inexpensive to manufacture, comprising few and simple parts, which shall be easy to manipulate and yet practical and efficient to a high degree in use.

Other objects of this invention will be in part be obvious and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combinations of elements, and arrangement of parts which will be exemplified in the construction hereinafter described, and of which the scope of application will be indicated in the following claims.

In the accompanying drawing, in which is shown various possible illustrative embodiments of this invention,

Fig. 1 is a top plan view of a shirt, showing the device embodying the invention in shirt retaining position;

Fig. 2 is a partial top plan view of the device

embodying the invention in button latching position;

Fig. 3 is a cross-sectional view taken on line 3—3 of Fig. 2;

Fig. 4 is a side elevational view of the improved device shown in Fig. 3;

Fig. 5 is a cross-sectional view taken on line 5—5 of Fig. 4; and

Fig. 6 is a perspective view of the device embodying the invention showing the position thereof when releasing the device from the shirt.

Referring now in detail to the drawing, 10 designates a device embodying the invention for retaining the front portions of shirt 11 in proper relation while folding or finishing the shirt or performing other operations thereon, either at a laundry or in a shirt factory. The shirt 11 comprises a front portion 12 formed with buttonholes 13, said front portion overlying a second front portion 14 carrying buttons 15 attached thereto by threads 16. The purpose of the device 10, as will appear hereinafter, is to hold the shirt portion 12 in position overlying the shirt portion 14, and prevent said shirt portions from being pulled apart, while retaining the shirt in unbuttoned condition.

To this end, the device 10 comprises a body member 20 and a member 21 slidably mounted thereon. Member 20 comprises two parts designated by numerals 22 and 23, said parts being attached together in the manner hereinafter appearing.

The parts 22 and 23 as well as part 21 may be made of sheet metal. Part 22 comprises a bottom wall 24 of substantially rectangular shape and extending upwardly from the sides thereof are parallel, vertical flanges 25. Extending upwardly from the central portions of flanges 25 are parallel, aligned, vertical walls 26. There also extends inwardly from the upper edges of flanges 25 retaining clips or ears 27, there being two such clips on each flange, located at opposite sides of the wall 26 which extends upwardly from said flange.

The part 23 is mounted on and fixed to part 22. The same comprises a flat wall 30 having outwardly extending co-planar ears 31 at its rear end received in notches 33 at the rear end of flanges 25 of part 22. At the front end of wall portion 30 are also co-planar, outwardly extending ears or arms 34 likewise received in notches 35 at the front end of flanges 25 of part 22, but extending beyond the flanges 25 at opposite sides of said part. The engagement of ears or arms 31, 34 with the flanges 25 retains

the wall portion 30 of part 23 in spaced, parallel relation to the bottom wall 24 of part 22. Extending from the front end of wall portion 30 is a tongue portion 40 depressed downwardly, substantially into the plane of the space 41 between walls 30 and 24. Tongue 40 is formed with an inclined edge 42 adjacent its outer end, and on one side thereof, forming a blunted point 43 at the front end of the tongue. Said end is slightly bent upwardly as shown in Fig. 3 of the drawing.

Rearwardly of the inclined edge 42 and on the same side of the tongue 40, is a notch 44. The notch 44 has an inclined edge 45 at its forward end and a curved edge 46 at its rear portion. For the purpose hereinafter appearing wall portion 20 is formed with a longitudinal, central slot 47 adjacent its rear end.

The prongs or clip portions 27 are bent downwardly against the upper surface and wall portion 30, thus pressing the ears 31 and 34 into said notches and against the flanges 25 to firmly fix together parts 22 and 23, which together comprise member 20.

The slidable member 21 comprises a flat wall portion 50 slidably received within the space 41 between wall portion 30 and wall 24. Extending upwardly from the rear end of wall 50 is a tongue or arm 51 disposed at right angles to wall 26. Pressed upwardly from the metal of wall 50 is a prong 53 passing through and slidably received in slot 47. Wall portion 30 is also formed with an upwardly pressed prong 55 aligned with prong 53, said prongs being interconnected by a coil tension spring 56. Extending forwardly from wall 50 is a latch portion 58 parallel to and in the plane of tongue 40. Spring 56 moves member 21 to the left relative to member 20 to cause the latch 58 to close the notch 44 in the tongue 40. Upon moving member 21 to the right however relative to member 20, latch 58 is retracted to uncover the notch 44.

The method of aligning the shirt fronts by means of the device 10 will now be described. The device is first held by gripping the walls 26 between two fingers. The front end of the device which consists of the tongue 43 and latch 58 is then passed downwardly through the buttonhole 13 and beneath the button 15. The thread 16 is moved along the inclined edge 42 and guided thereby toward the outer end of latch 58. Continued movement of the device 10 to the left will cause the thread 16 to push back the latch 58 causing member 21 to be moved to the right relative to member 20, thus tensioning the spring 56. As soon as the latch 58 sufficiently uncovers the notch 44, the thread 16 will enter said notch and permit the spring 56 to snap latch 58 to the left to latch or lock the thread 16 within the notch. It will now be understood that a pull on the shirt front parts in opposite directions cannot open up the latch or permit said shirt portions to separate. The device 10 thus holds the shirt front portions in aligned position while retaining the shirt in unbuttoned condition. Obviously one device 10 can be used for each buttonhole. The shirt can then be folded, finished or otherwise operated upon without changing the condition of the front of the shirt.

To remove the device 10 it is merely necessary to engage the thumb with the upwardly extending tongue 51 and push to the right. Such action will first withdraw the latch 58 sufficiently to permit the thread 16 to escape from the notch

44. Continued pressure on the arm or tongue 51 in the same direction will then cause the entire device 10 to be withdrawn from the buttonhole.

5 It will thus be seen that there is provided a device in which the several objects of this invention are achieved, and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiment above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawing is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A device of the character described comprising a member having a tongue portion adapted to pass through a buttonhole in a shirt and formed with a notch in one side thereof, and a second member slidably mounted longitudinally on the first member and having a latch portion lying alongside and extending longitudinally of said tongue portion and adapted to close said notch the end of said latch portion adjacent said notch being exposed, whereby said end may be contacted and said latch pushed back to expose said notch.

2. A device of the character described comprising a member having a tongue portion adapted to pass through a buttonhole in a shirt and formed with a notch in one side thereof, a second member slidably mounted longitudinally on the first member and having a latch portion lying alongside and extending longitudinally of said tongue portion and adapted to close said notch the end of said latch portion adjacent said notch being exposed, whereby said end may be contacted and said latch pushed back to expose said notch, and resilient means to cause relative movement between said members.

3. A device of the character described comprising a member having a tongue portion adapted to pass through a buttonhole in a shirt and formed with a notch in one side thereof, a second member slidably mounted longitudinally on the first member and having a latch portion lying alongside and extending longitudinally of said tongue portion and adapted to close said notch the end of said latch portion adjacent said notch being exposed, whereby said end may be contacted and said latch pushed back to expose said notch, resilient means to cause relative movement between said members, and a finger grip portion on the first member and a thumb engaging portion on the second member.

4. A device for retaining shirt front portions in overlying, unbuttoned relation, comprising a member having a tongue adapted to be passed through a buttonhole of one of the shirt portions and beneath a button on the other shirt portion, and formed with a notch at one side thereof adapted to receive the thread which attaches the button to its shirt portion, a second member mounted on the first member for sliding movement longitudinally thereof and having a latch also adapted to pass through said button hole and lying alongside said tongue and normally closing said notch, the outer end of said latch being exposed, resilient means interconnecting said members, adapted to bear said latch toward notch closing position, said latch being retractable by contact of said thread with the outer end of said latch, to uncover said notch upon

moving said tongue and latch beneath said button, whereby said thread may move into said opened notch, and said resilient means being adapted to snap said latch back into notch closing position upon said thread entering said notch and releasing said latch.

5. A device for retaining shirt front portions in overlying, unbuttoned relation, comprising a member having a tongue adapted to be passed through a buttonhole of one of the shirt portions and beneath a button on the other shirt portion, and formed with a notch adapted to receive the thread which attaches the button to its shirt portion, a second member slidably mounted on the first member and having a latch also adapted to pass through said buttonhole and normally closing said notch, resilient means interconnecting said members, adapted to bear said latch toward notch closing position, said latch being retractable by said thread to uncover said notch upon moving said tongue and latch beneath said button, whereby said thread may move into said opened notch, and said resilient means being adapted to snap said latch back into notch closing position upon said thread entering said notch and releasing said latch, said tongue having an inclined edge at the front end thereof and at the same side thereof as said notch, said inclined edge being disposed forwardly of the front end of said latch, to guide the thread toward the notch.

6. A device of the character described comprising a member having a longitudinal portion adapted to pass through a buttonhole in a shirt and formed with a notch, a second member slidably mounted on the first member and having a longitudinal latch portion lying alongside said first portion and adapted to close said notch, and resilient means to cause relative longitudinal movement between said members, said first member being formed with a pair of parallel, upwardly extending portions adapted to be engaged by the fingers of the operator upon moving said device into button engaging position, and said slidably mounted member having an upwardly extending wall at its rear end adapted to be engaged by a finger of the operator and moved in a direction for retracting the latch to uncover the notch and release the thread, whereby continued movement of said finger in the same direction will move said tongue out of the buttonhole.

7. A device of the character described comprising a pair of members, one member comprising two parts, one part having a bottom wall and upwardly extending parallel flanges, the second part having a wall mounted on said flanges and disposed parallel to said bottom wall forming a space therebetween, said second part having a tongue formed with a notch, the second member having a wall slidably mounted within said space, resilient means to cause relative sliding movement between said members and said second member having a latch parallel to said tongue and adapted to cover the notch thereon.

8. A device of the character described comprising a member having a bottom wall, a pair of flanges extending upwardly from the sides thereof, said flanges being formed with upwardly extending parallel finger engaging portions, a member mounted between said flanges and disposed in parallel, spaced relation to said bottom wall, means to fix the second member to the first member, said second member having a forwardly extending tongue and being formed with a longitudinal slot, said tongue being formed with a

notch on one side thereof, a third member having a portion slidably mounted between said first and second members and having a lug passing through said slot, a coil tension spring interconnecting said lug with said second member, said third member being formed with a latch disposed parallel and in alignment with said tongue and adapted to close said notch.

9. A device of the character described comprising a member having a bottom wall, a pair of flanges extending upwardly from the sides thereof, said flanges being formed with upwardly extending parallel finger engaging portions, a member mounted between said flanges and disposed in parallel, spaced relation to said bottom wall, means to fix the second member to the first member, said second member having a forwardly extending tongue and being formed with a longitudinal slot, said tongue being formed with a notch on one side thereof, a third member having a portion slidably mounted between said first and second members and having a lug passing through said slot, a coil tension spring interconnecting said lug with said second member, said third member being formed with a latch disposed parallel and in alignment with said tongue and adapted to close said notch, said third member having an upwardly extending wall at its rear end.

10. A device of the character described comprising a member having a bottom wall, a pair of flanges extending upwardly from the sides thereof, said flanges being formed with upwardly extending parallel finger engaging portions, a member mounted between said flanges and disposed in parallel, spaced relation to said bottom wall, means to fix the second member to the first member, said second member having a forwardly extending tongue and being formed with a longitudinal slot, said tongue being formed with a notch on one side thereof, a third member having a portion slidably mounted between said first and second members and having a lug passing through said slot, a coil tension spring interconnecting said lug with said second member, said third member being formed with a latch disposed parallel and in alignment with said tongue and adapted to close said notch, said third member having an upwardly extending wall at its rear end, and said tongue being formed with an inclined edge at its front end.

11. A device of the character described comprising a member having a bottom wall, a pair of flanges extending upwardly from the sides thereof, said flanges being formed with upwardly extending parallel finger engaging portions, a member mounted between said flanges and disposed in parallel, spaced relation to said bottom wall, means to fix the second member to the first member, said second member having a forwardly extending tongue and being formed with a longitudinal slot, said tongue being formed with a notch on one side thereof, a third member having a portion slidably mounted between said first and second members and having a lug passing through said slot, a coil tension spring interconnecting said lug with said second member, said third member being formed with a latch disposed parallel and in alignment with said tongue and adapted to close said notch, said third member having an upwardly extending wall at its rear end, said tongue being formed with an inclined edge at its front end, and said second member being formed with a pair of outwardly extending arms at the rear end of said tongue.

12. A shirt retaining clip for temporarily holding a button and button hole of the shirt in a relative position, including a latch bar adapted to be intruded into the button hole, said latch bar having a recess in one edge and a bevelled edge extending outwardly beyond the recess for guiding the button threads into the recess, a spring pressed keeper with one end normally closing the recess, terminating at the rear end of the bevelled edge and adapted when pressed into engagement with the threads to move the keeper into position to open the recess and permit the threads to pass into the recess.

13. A shirt retaining clip for temporarily holding a button and button hole of the shirt in a relative position, including a latch bar adapted to be intruded into the button hole, said latch bar having a recess in one edge and a bevelled edge extending outwardly beyond the recess for guiding the button threads into the recess, a spring pressed keeper with one end normally closing the recess, terminating at the rear end of the bevelled edge and adapted when pressed into engagement with the threads to move the keeper into position to open the recess and permit the threads to pass into the recess, and said keeper provided at its opposite end with a withdrawal finger piece operating when moved in a direction to shift the keeper in its opening direction to pull the device as a whole free of the button and button hole.

14. A device for locating a button in temporary position relative to its associated button hole, including a body portion having a latch bar projecting therefrom, said latch bar having a recess in one edge thereof and reduced in width outwardly thereof to form a side bevelled guiding edge, terminating in a pointed end, a keeper bar slidably mounted in the body portion, with one end normally lapping the recess to close the same,

said latch bar and keeper bar forming a projection from the body portion adapted to be intruded into the button hole for engaging the fastening threads of the button, the adjacent end of the keeper bar located to receive the fastening threads as the threads are guided down the guiding edge and said threads acting to move the keeper bar into position opening the recess to permit the threads to move into the recess as the pointed end is moved past the button and a spring acting on the keeper bar to close the threads within the recess.

15. A device for retaining shirt front portions in overlying, unbuttoned relation, comprising a member having a tongue adapted to be passed through a buttonhole of one of the shirt portions and beneath a button on the other shirt portion, and formed with a notch adapted to receive the thread which attaches the button to its shirt portion, a second member slidably mounted on the first member and having a latch also adapted to pass through said buttonhole and normally closing said notch, resilient means interconnecting said members, adapted to bear said latch toward notch closing position, said latch being retractable by said thread to uncover said notch upon moving said tongue and latch beneath said button, whereby said thread may move into said opened notch, and said resilient means being adapted to snap said latch back into notch closing position upon said thread entering said notch and releasing said latch, said tongue having an inclined edge at the front end thereof and at the same side thereof as said notch, said inclined edge being disposed forwardly of the front end of said latch, to guide the thread toward the notch, said members having finger engaging means thereon.

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