Aug. 26, 1941. D. SEGELIN ET AL 2,253,732

PERMANENT CREASE FORMING MEANS

Filed May 11, 1939 2 Sheets-Sheet 1

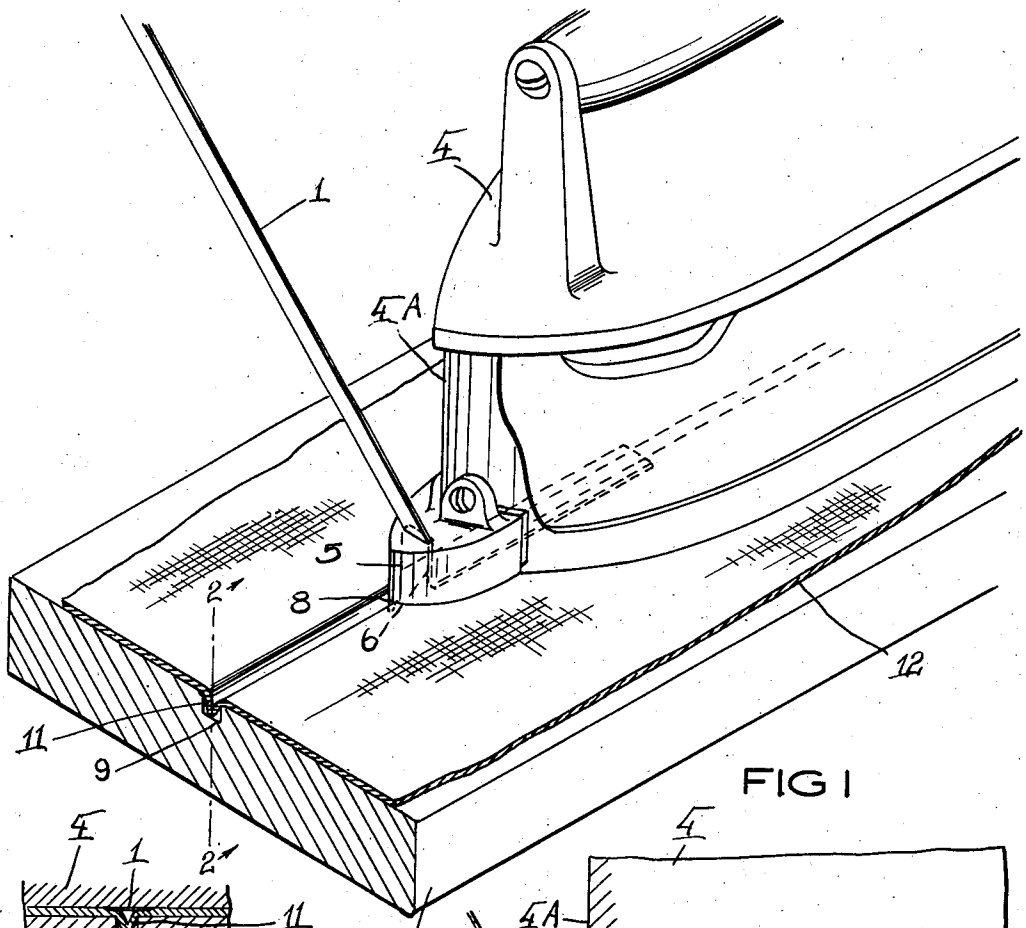


FIG 1

FIG 3

FIG 2

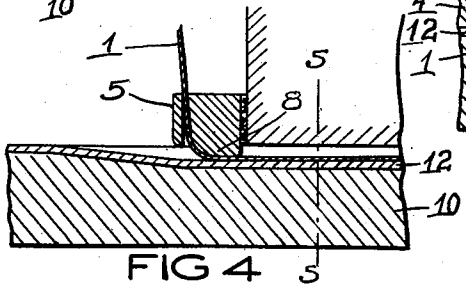


FIG 4

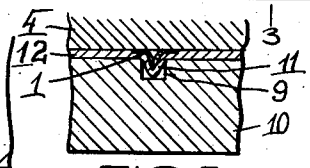


FIG 5

INVENTOR
DAVID SEGELIN &
SOLOMON SEGELIN
BY
ATTORNEY

Aug. 26, 1941. D. SEGELIN ET AL 2,253,732

PERMANENT CREASE FORMING MEANS

Filed May 11, 1939 2 Sheets-Sheet 2

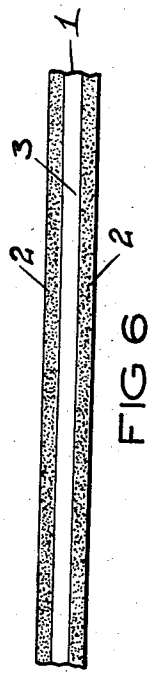


FIG 6

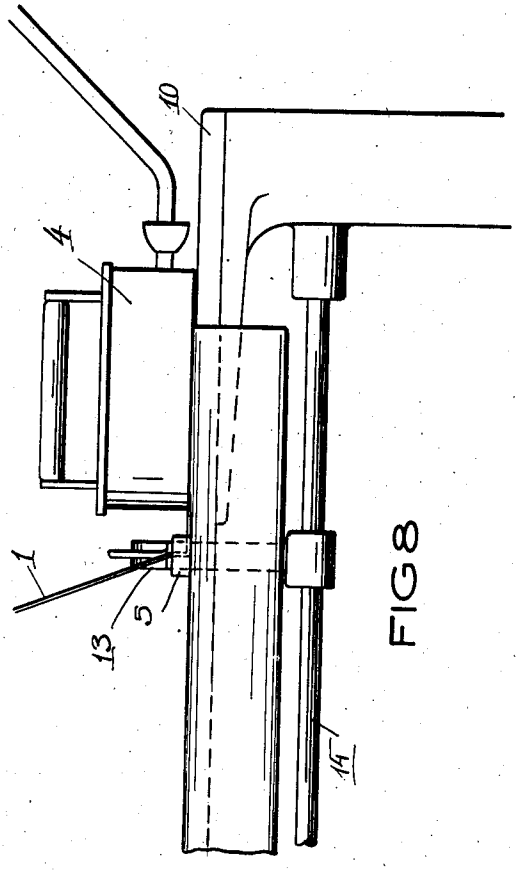


FIG 8

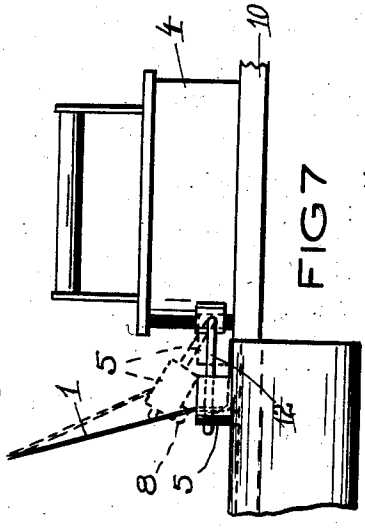


FIG 7

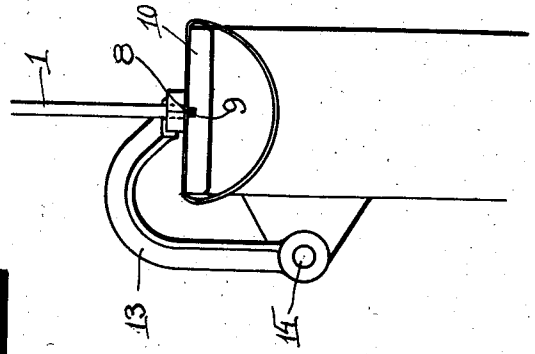


FIG 9

INVENTOR
DAVID SEGELIN &
SOLOMON SEGELIN

BY Eric Schinagel,
ATTORNEY.

Patented Aug. 26, 1941 2,253,732

UNITED STATES PATENT OFFICE

2,253,732

PERMANENT CREASE FORMING MEANS

David Segelin and Solomon Segelin,
Rochester, N. Y.

Application May 11, 1939, Serial No. 273,064

9 Claims. (Cl. 38—1)

This invention relates to the formation of creases in garments, especially trousers, and has for one of its objects to provide a novel form of crease retaining tape for use in holding the crease permanently in shape.

Another object of this invention is to provide novel means for positioning the tape relative to the crease and attaching it in this predetermined position to the fabric.

These and other objects and attendant advantages of the invention will become more readily apparent from the detailed description which follows, reference being had to the accompanying drawings in which

Figure 1 is a perspective view of the iron and ironing board embodying the subject matter of my invention, illustrating the manner in which the novel crease retaining tape is attached to the creased fabric by means thereof.

Figure 2 is a longitudinal sectional view of a portion of the iron and ironing board taken on the line 2—2 of Figure 1.

Figure 3 is a detail sectional view taken on the line 3—3 of Figure 2.

Figure 4 is a longitudinal section of a portion of the iron and ironing board similar to that illustrated in Figure 2 in which the iron is modified for the attachment of the crease retaining tape in a modified manner.

Figure 5 is a detail sectional view taken on the line 5—5 of Figure 4.

Figure 6 is a bottom plan view of a short length of the novel crease retaining tape.

Figure 7 is a side elevation of an iron and ironing board in which the iron is provided with a modified form of mounting for the tape guide member carried thereby.

Figure 8 is a side elevation of an iron and ironing board with the tape guide member movable with the iron but separately mounted and guided relative to the groove in the ironing board.

Figure 9 is an end elevation of the ironing board and tape guide member illustrated in Figure 8.

In our present invention the crease retaining tape 1 is provided on the under side with a normally dry coating which is made adhesive when heated. The adhesive is applied along the edges 2, 2 of the tape so that the middle section 3 thereof remains uncoated. In this way the pliability of the middle of the tape is not affected by the coating and remains readily foldable the full length thereof. In addition the tape is thin and of a suitable fabric so that even the coated portion, when attached, will not materially stiffen the fabric because of its attachment thereto.

For the application of the tape, the iron 4 is provided with the combination guide and positioning member 5 which is suitably attached tc the pointed nose 4A of the iron so as to form a continuation thereof. A substantially vertical slot 6 is provided in the member 5 which terminates at the bottom in the horizontal groove 7 which leads from the slot to the bottom of the front end or nose of the iron.

At the bottom of the member 5 extending forwardly of the slot 6 is provided the guide flange 8 which is adapted to cooperate with the groove 9 in the surface of the ironing board or arm 10. The guide flange is of suitable length so that its engagement into the groove 9 will hold the iron at all times therewith.

The function of the guide flange 8 is to force the preformed crease 11 in the fabric 12 into the groove 9 and hold it suitably expanded therein for the application and attachment of the crease retaining tape in a predetermined position over the back of the crease. In the attachment of the tape, as illustrated in Figure 1, the fabric with its preformed crease 11 is placed on the board so that the crease is in line with and will engage into the groove 9. The iron is then placed over the fabric to have the flange 8 in the member 5 engage into the preformed crease in the fabric so as to expand and force the crease into the groove 9 ahead of the iron proper.

The crease retaining tape is taken from a supply roll which is held suitably suspended over the iron so that the tape may be readily fed therefrom to the iron. The free end of the tape is threaded into the vertical slot 6 of the member 5 to have the horizontal groove in the bottom of this member hold the tape in line with the flange 8 for engagement by the ironing surface of the iron. The iron is suitably heated by any suitable heating medium to the temperature at which the adhesive will become active when transmitted thereto. With the iron at this temperature its forward end or nose 4A is placed over the free end of the tape to heat the coated surfaces thereof and make them adhesive for attachment to the fabric on each side of the crease. After the free end of the tape is attached to the fabric, the iron is moved over the fabric with the flange 8 in engagement with the preformed crease causing the tape to feed from its supply roll and to pass thru the member 5 to be heated by the iron and pressed in place over the back of the crease to activate the adhesively

coated surfaces thereof and have them adhere to the fabric on each side of the crease. The tape then spacedly connects the sides of the crease at the back thereof so as to hold the crease uniformly and permanently formed in the fabric.

The depth of the groove 9 in the ironing board is gradually decreased at the end so that its bottom finally merges with the top surface of the board. In this way the preformed crease in the fabric is gradually diminished at the end so that the tape is cemented over the diminishing crease until it is held flattened by the tape and completely eliminated. The end of the permanently fixed crease thus gradually merges into the fabric producing an effect which otherwise may only be obtained by careful and skilled pressing.

In the formation of the modified crease illustrated in Figures 4 and 5, the member 5 has its guide flange 8 located in back of the vertical guide slot 6. In this way the tape fed thru the slot is depressed into the back of the crease while the crease is forced into the groove of the ironing board so that the tape is cemented to the fabric with its uncoated middle area held depressed into the back of the crease. This will produce a permanently held crease which is not as sharp as the one formed by the method illustrated in Figures 1, 2 and 3 because the unattached wedge shaped middle area of the tape will allow the crease to increase in width and therefore decrease in depth after it is removed from the groove in the ironing board.

The guide member 5 is preferably spaced from the iron by means of a non-conductor of heat in order to reduce the transmission of heat from the iron to the guide member to a minimum and thus keep the adhesive coating of the tape from being activated until the tape has reached the iron for attachment thereby.

In Figure 7 we have illustrated the combined tape positioning and guiding member 5 mounted on a suitable guide 12 so that it can slide back and forth thereon. With the guide member slidably mounted in front of the iron it may be moved away from it for the threading of the tape thru the guide member to a position between it and the nose of the iron to facilitate the proper placing of the beginning of the tape over the back of the crease before the heated ironing surface of the iron is brought into contact with it for the attachment thereof.

The guide 12 may also be mounted to swing in front of the iron as illustrated in dotted lines in Figure 7 to further facilitate the threading of the tape thru the guide member and the placement of it in proper position relative to the preformed crease when the guide member is placed over the fabric ahead of the iron. When the beginning of the tape is attached, the guide member is adapted to slide toward the nose of the iron to position itself directly in front of it as illustrated in dotted lines in Figure 7 and move with the iron in the manner described above.

In Figures 8 and 9 we have illustrated the guide member 5 mounted at the end of the swinging and sliding arm 13. This arm is mounted to slide on the guide shaft 14 which extends parallel to the ironing board 10 and the groove 9 provided therein. When the arm is swung into the position illustrated in the figures, the guide member 5 is held in line with the groove 9 so that its flange 8 forces the preformed crease into the groove and locates the end of the tape 1 over it. The iron is then placed over the end of the located tape and moved up to the guide member so as to push the guide member ahead of it to force the preformed crease into the groove 9 and locate the tape over it while the heat and pressure of the iron cements the tape in place.

We claim:

1. In a device for the attachment of a tape over the back of a crease in fabric material by means of two strips of adhesive coating on the tape which are made adhesive by the application of heat and are spaced by an uncoated strip in the middle of the tape, the combination of creasing means adapted to be movable over the fabric supported on an ironing board having a creasing channel therein so as to hold the fabric into the creasing channel, guide means movable with said creasing means for guiding the tape onto the fabric relative to the crease held therein by the creasing means with the adhesive coated strips of the tape on each side of the back of the crease and the uncoated strip over the back of the crease, and a heat exchange member movable with said guide means in contact with the tape for the permanent attachment of the tape to the fabric by means of the adhesive coatings.

2. In a device for the attachment of a tape over the back of a crease in fabric material by means of two strips of adhesive coating on the tape which are made adhesive by the application of heat and are spaced by an uncoated strip in the middle of the tape, the combination of guide means adapted to move over the fabric supported on an ironing board having a creasing channel therein so as to guide the tape over the fabric relative to the creasing channel in the ironing board, creasing means movable with said guide means adapted to hold the fabric and the uncoated strip of the tape into said creasing channel and heat exchange means movable with said guide means into contact with the tape over the adhesive coated strips to cement the tape to the fabric on each side of the crease formed therein.

3. Crease forming means adapted to form a permanent crease in a fabric supported on an ironing board having a groove in the surface longitudinally thereof, comprising an iron for movement over the fabric on said ironing board, means movable with said iron for engaging the fabric into the groove of said ironing board, and means movable with said first named means for guiding a crease retaining tape relative to the fabric held in said groove for attachment by the iron over the back of the fabric on each side of the groove.

4. Crease forming means adapted to make permanent a preformed crease provided in a fabric supported on an ironing board having a groove in the surface longitudinally thereof, comprising an iron for movement over the fabric on said board, means movable with said iron for engaging and holding the preformed crease in the fabric in said groove, and means movable with said first named means for guiding a crease retaining tape relative to said crease in said groove for attachment to the fabric by said iron on each side of the groove.

5. Crease forming means adapted to permanently form a crease in fabric supported on an ironing board having a groove extending longitudinally thereof for the support of a fabric over said groove, comprising an iron for movement over the fabric on said board, means movable with said iron for holding the fabric locked into said groove to form a crease in the fabric, means

movable with said first named means for guiding a crease retaining tape for attachment thereof to the fabric on each side of the groove and means for forcing a middle portion of the tape longitudinally into said groove.

6. Crease forming means adapted to permanently form a crease in a fabric supported on an ironing board having a longitudinal groove therein, comprising an iron for movement over the ironing board, a guide flange movable with said iron and adapted to project into said groove, and means carried by said guide flange to guide said iron in its movement relative to said groove, and tape guiding and holding means for guiding a tape to the iron surface of said iron and holding it relative to said guide flange and said groove.

7. Crease forming means adapted to permanently form a crease in fabric supported on an ironing board having a groove therein, comprising tape guide means movably mounted over said ironing board for guiding a tape over the fabric relative to said groove, means carried by said tape guide means for forcing the fabric into the groove of said ironing board, and means movable with said tape guide means for causing the attachment of the tape to the fabric.

8. The combination as set forth in claim 7 including means for guiding said tape guide means parallel to said groove in said ironing board.

9. The combination as set forth in claim 7 in which said tape guide means are mounted to swing toward and away from said ironing board transversely thereto.

DAVID SEGELIN.
SOLOMON SEGELIN.