

Nov. 20, 1962

A. KUBER

3,064,271

FRICTION BELT BUCKLE

Filed Nov. 15, 1961

2 Sheets-Sheet 1

FIG. 1

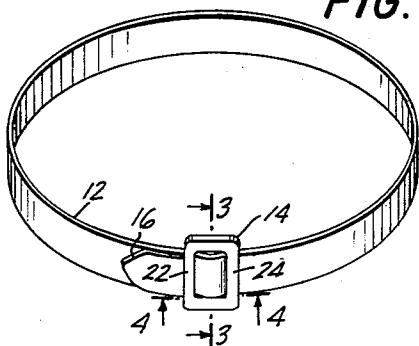


FIG. 2

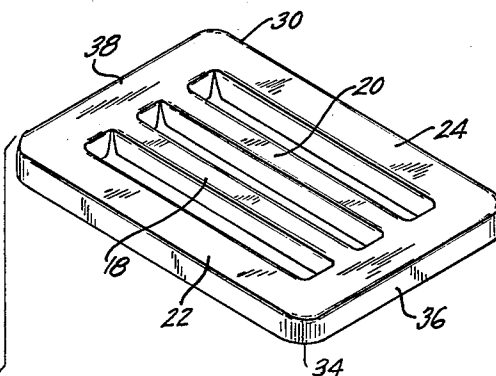


FIG. 3

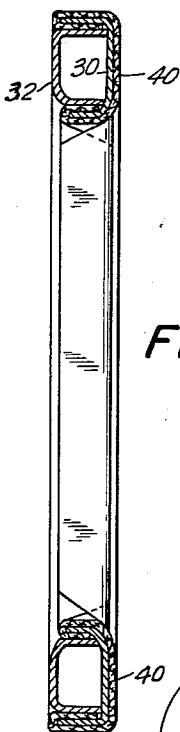


FIG. 4

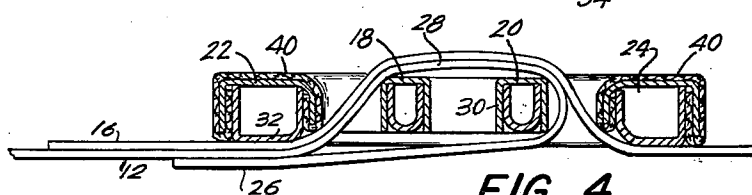
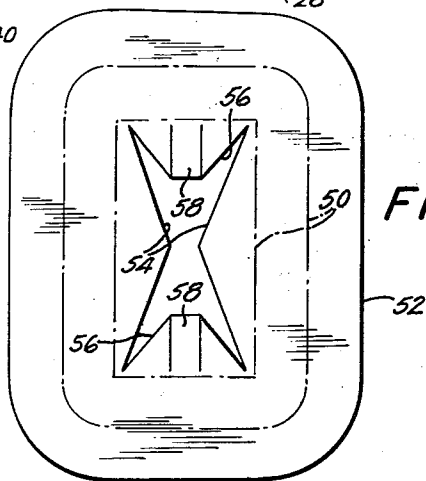


FIG. 5



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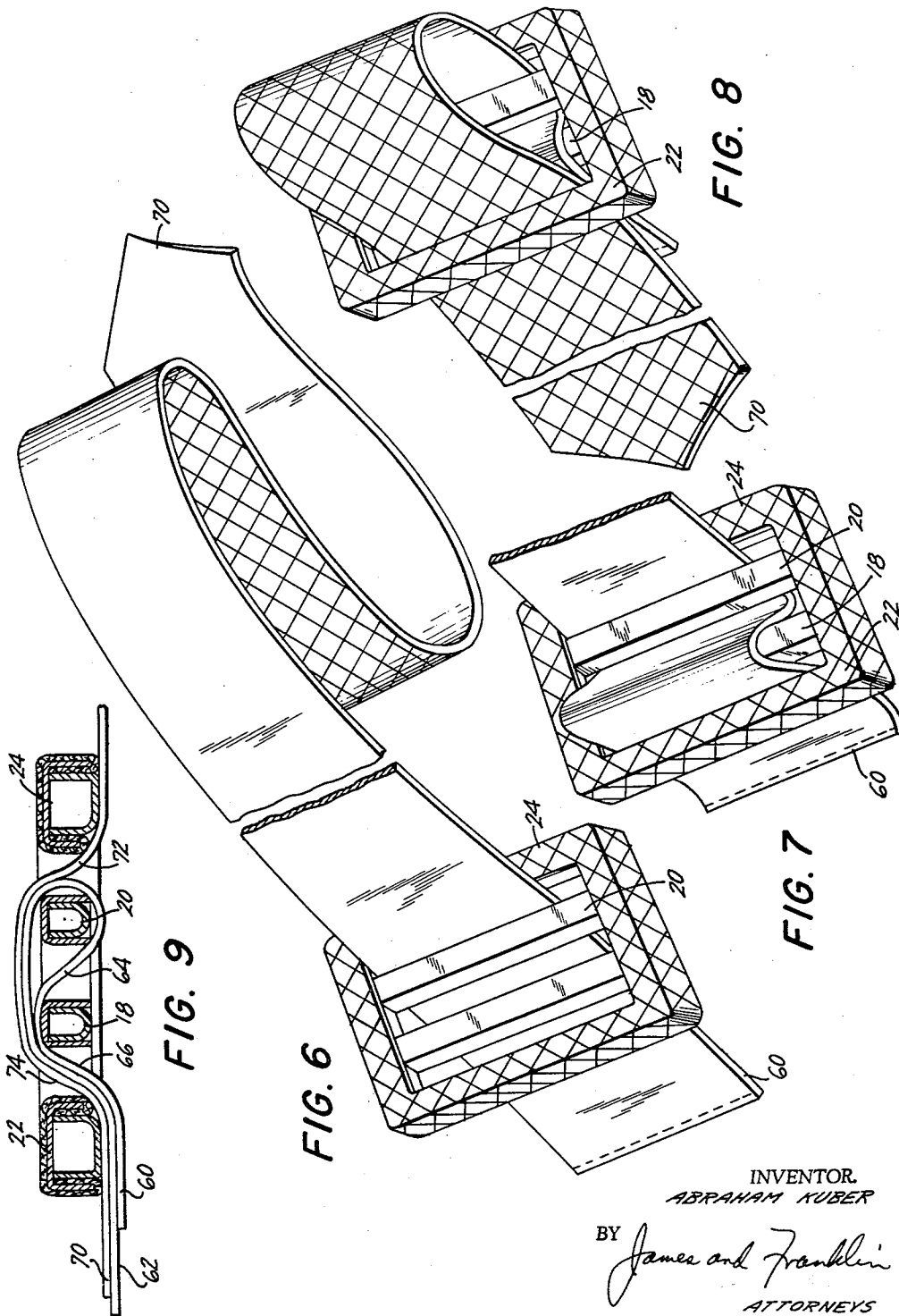
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3,064,271

FRICION BELT BUCKLE

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2 Claims. (Cl. 2—311)

This invention relates to belt buckles, and more particularly to covered belt buckles.

The general object of the present invention is to improve belt buckles, especially covered belt buckles adapted for use by home dressmakers.

The usual "self fabric" belt used with a dress employs a buckle with a prong, and the belt has eyelets. Such belts are easily made by machine under factory conditions, but present difficulty to a home dressmaker. The buckle frame must be covered with fabric, and thereafter the prong must be applied to the cross bar. Also, the belt must be provided with a slot for the hinge portion of the prong, and the belt itself must be provided with holes protected by eyelets. Moreover, to avoid color complication for the storekeeper selling the buckle and eyelet kit, the kit is usually limited to one finish, say nickel, for the metal eyelets and prong, and this may clash with some dress fabrics or accessories.

The primary object of the present invention is to overcome the foregoing difficulties, and to provide a covered buckle which is of the friction or slide type, and which therefore needs no prong nor eyelets. Friction buckles are known but have not heretofore proved successful with the typical wide belt used on a dress made of the usual thin fabric. In accordance with the present invention, the buckle frame is provided with two spaced cross bars instead of one. With this construction the space between each cross bar and the nearest side of the frame may be reduced to a dimension small enough to insure a good friction grip on the belt, even though the buckle may, for appearance sake, be made quite wide.

In accordance with a further feature and object of the invention, the two cross bars are covered by a folded loop securing the buckle to the belt, and consequently the cross bars may be left uncovered. The patterning or shaping of the covering fabric for the buckle then provides more fabric for covering the exposed side portions of the buckle frame.

Still another and important object of the invention is to eliminate the need for sewing a loop when attaching the buckle to the belt. A manufacturer of belts has special sewing machines with a high post for this purpose, but a home dressmaker does not have such a special machine. On a regular sewing machine it would be necessary to stitch the loop at a substantial distance away from the buckle, thus making the loop which holds the buckle unduly long. The alternative is to stitch by hand, but this is difficult because of the belt backing, which is relatively hard to penetrate. The two cross bars of the present buckle make it feasible to attach the belt to the buckle by a frictional connection, with no stitching required at all. For this purpose the spacing between the two cross bars should not be excessive, and this is assured by the mere use of two cross bars, when the buckle is of usual or reasonable proportions.

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To accomplish the foregoing objects, and other more specific objects which will hereinafter appear, my invention resides in the belt and buckle elements and their relation one to another, as are hereinafter more particularly described in the following specification. The specification is accompanied by drawings in which:

FIG. 1 is a perspective view of a belt embodying features of the present invention;

FIG. 2 is a perspective view of the telescopic sheet metal parts of the buckle shown separated;

FIG. 3 is a transverse section taken approximately in the plane of the line 3—3 of FIG. 1, without the belt;

FIG. 4 is a section taken approximately in the plane of the line 4—4 of FIG. 1;

FIG. 5 shows a pattern for the covering fabric;

FIGS. 6, 7 and 8 are perspective views showing successive steps in securing the buckle to the belt without stitching; and

FIG. 9 is a section similar to that shown in FIG. 4, but showing the relation of the belt to the buckle when attached without stitching.

Referring to the drawing, and more particularly to FIG. 1, the belt 12 carries a buckle 14. The end 12 of the belt is secured to the buckle, while the free end 16 is passed forwardly and then rearwardly through the buckle, 14, much as in known friction buckles.

Referring now to FIGS. 2 and 4, it will be seen that the frame of the buckle is generally rectangular and has two parallel spaced cross bars 18 and 20. These are disposed in a direction transverse to the length of the belt, or differently expressed, they are parallel to the sides 22 and 24 of the frame. The space between each cross bar and the nearest side of the frame, that is, the space between bar 18 and side 22, and between bar 20 and side 24, is reduced to a dimension which insures good friction holding of the belt.

Referring to FIG. 4, in this case the end 12 of the belt is preferably folded reversely around both cross bars 18 and 20, and then stitched at 26 to hold the buckle. In use, the free end 16 of the belt passes around the fabric loop 28 of the belt, thereby increasing the frictional grip, apart from the more important feature that the angle of bend is determined by and is increased by the relatively reduced spacing between the bars and the sides of the buckle, despite the rather substantial overall width of the buckle.

This looping of the belt around both cross bars is not essential but it has a further advantage when dealing as here with a covered buckle. The loop 28 conceals the cross bars without requiring fabric covering of the same, thereby simplifying the covering operation, as is explained later in greater detail.

In the preferred form shown the buckle is a covered buckle, and the frame comprises a top piece generally designated 30 (FIG. 2) which may be made of sheet metal of inverted trough section, and a bottom piece generally designated 32, which as here shown is also made of sheet metal of trough section. The bottom piece is dimensioned to be telescopically received inside the top piece with a loose fit when no fabric is present, but with a tight fit when the covering fabric is caught therebetween, thereby clamping the fabric in position.

The top and bottom pieces may be brought to trough

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section by a drawing operation, or they may be stamped and folded to desired configuration. In the present case the method of fabrication is a combination of both, that is, the outer periphery is drawn to shape, as indicated by the continuous edge at the four corners 34 of each piece, but the inner flanges are severed at the various corners of the sides and cross bars. This simplifies the dies needed to form the telescopic parts, and the press operation needed.

A fabric covering 40 is disposed over the top piece and is slit to provide inner flaps, such that the fabric may be wrapped around the outer sides of the top piece, and then turned upward into the troughs or channels. The upward turned parts then are clamped between the bottom piece 32 and the top piece 30.

One usable patterning of the fabric is shown in FIG. 5. In that figure the preferred location of the top of the buckle is indicated by the broken lines 50. The marginal fabric 52 is folded around the periphery of the buckle, and then upward where it is clamped in position. The parts 54 are turned into the space between the cross bars 18 or 20 and the outer sides 22 or 24. The triangular parts 56 are turned into the same space, at the ends of the space, and they somewhat overlie the ends of the cross bars, but the cross bars are largely uncovered. The rectangular parts 58 are turned into the space between the two cross bars 18 and 20.

It will be seen that there is no need to cover the cross bars 18 and 20. This not only simplifies the patterning but leaves more fabric material available for covering the exposed outer sides 22, 24, 36 and 38 of the buckle. The cross bars 18 and 20 are anyway effectively covered by the loop 28 of the belt.

The parts of the buckle are usually sold in kit form to the home dressmaker, with appropriate instructions. These usually include a paper pattern (as shown in FIG. 5) for the piece of fabric which is to be secured about the buckle. In most cases this pattern is given a pressure sensitive adhesive surface so that it may be adhered to the back of the fabric before the fabric is cut, and the paper then remains with and adds body to the fabric when the fabric is secured about the buckle. No attempt has been made in FIGS. 3 and 4 to show both the fabric and the paper, but the thickness shown may be assumed to represent both.

The particular buckle here illustrated is used with a belt having a width of 2 inches. The buckle itself is $2\frac{3}{4}$ inches high (vertical dimension), and just under 2 inches wide (horizontal dimension), and yet the spaces between the cross bars 18 or 20 and the sides 22 or 24 of the buckle are only $\frac{1}{4}$ inch in width. The space between the cross bars is about the same, in this case. It will therefore be evident that the frictional holding power of the buckle is made substantial.

The buckle may be secured to the belt without stitching, and for this purpose advantage is taken of the space provided between the two cross bars 18 and 20. This space is also small, and in the illustrated case is $\frac{9}{32}$ inch wide. Referring to FIG. 9, the buckle comprises cross bars 18 and 20 between the sides 22 and 24, the same as in FIGS. 1-5 of the drawing. The end 60 is folded relative to the end portion 62 to provide a loop which holds the buckle, but in this case the end 60 is passed upward at 64 between the bars 18 and 20, and then downward at 66 between the bar 18 and the side 22. When this is done the buckle is strongly and immovably secured to the belt without any stitching to hold the end 60 or to close the loop.

The other or pointed or free end 70 of the belt is passed upward at 72 and then downward at 74, exactly the same as previously described in connection with FIGS. 1 and 4.

The buckle may be attached to the belt by manipulating the end 60 alone, but in practice it has been found somewhat simpler to perform only part of the operation

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with the end 60, and the remainder of the operation with the pointed or free end 70. This preferred procedure is illustrated in FIGS. 6, 7 and 8 in the drawing. In FIG. 6 the buckle is held right side up, and the belt is held upside down, and is started through the buckle in this reversed position. At this time the end 60 is passed downward between the side 24 and the cross bar 20, as shown in FIG. 6. Referring next to FIG. 7, the end 60 is then turned upward between the cross bars 18 and 20, and then downward between the cross bar 18 and the side 22.

The remote or free end 70 of the belt then is taken and passed downward between the cross bar 18 and the side 22, as shown in FIG. 8, and when drawn taut, the buckle is attached to the belt, as shown in FIG. 9, disregarding for the moment the parts 72, 74, and 70. The belt is then ready for use, for which purpose the pointed end is simply passed upward and then downward through the buckle, as shown in FIG. 9 at 72, 74, and 70.

It is believed that the construction and method of use of my improved buckle, as well as the advantages thereof, will be apparent from the foregoing detailed description. The buckle has no prong, and the dressmaker is relieved of the task of adding a prong to the buckle, and of making holes and adding eyelets to the belt itself. She is also relieved of the difficult task of stitching the belt to the buckle. The belt and the covering fabric on the buckle are usually (though not necessarily) "self fabric," and there are no exposed metal parts which might clash in color with the dress fabric. For the belt itself, the belt kit may include a somewhat stiff backing material to which the self fabric is hemmed and adhered as a face fabric. This construction of the belt itself forms no part of the present invention, which rather centers about the construction of the buckle and its attachment to the belt.

It will be understood that while I have shown and described the invention in a preferred form, changes may be made without departing from the scope of the invention, as sought to be defined in the following claims.

I claim:

1. A belt for wear about the waist and covered with fabric and having a friction buckle which is also covered with fabric, said buckle comprising a top piece made of sheet metal of inverted trough section, a bottom piece made of sheet metal of trough section and telescopically received in the top piece, said pieces having two parallel spaced cross bars disposed in a direction transverse to the length of the belt, the spaces between the cross bars, and the adjacent sides of the frame being relatively narrow to insure good friction holding of the belt, a fabric covering disposed over the top piece and slit to expose the cross bars and to provide flaps folded in said spaces and such that the fabric is wrapped around the sides of the top piece and turned upward, the upward turned portions being clamped between the top and bottom pieces, the shape of the fabric being such that it leaves the cross bars substantially uncovered, thereby providing more fabric for covering the exposed outer sides of the buckle, one end of the belt passing over both cross bars and being folded around one cross bar, and then outward between the cross bars, and inward between the other cross bar and the adjacent side of the buckle, whereby the buckle is held on the belt without stitching, and the other or free end of the belt when in use being passed outward and then inward around the aforesaid folded end of the belt for friction holding.

2. A belt for wear about the waist and covered with fabric and having a friction buckle which is also covered with fabric, said buckle comprising a top piece made of sheet metal of inverted trough section, a bottom piece made of sheet metal of trough section and telescopically received in the top piece, said pieces having two parallel spaced cross bars disposed in a direction transverse to the length of the belt, the spaces between the cross bars

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and the adjacent sides of the frame being relatively narrow to insure good friction holding of the belt, a fabric covering disposed over the top piece and slit to expose the cross bars and to provide flaps folded in said spaces and such that the fabric is wrapped around the sides of the top piece and turned upward, the upward turned portions being clamped between the top and bottom pieces, the shape of the fabric being such that it leaves the cross bars substantially uncovered, thereby providing more fabric for covering the exposed outer sides of the buckle, one end of the belt passing over both cross bars and being secured thereto, whereby the cross bars are covered by the belt, and the other or free end of the belt when in

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use being passed outward and then inward around the aforesaid end of the belt for friction holding.

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UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,064,271

November 20, 1962

Abraham Kuber

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 4, line 49, after "bars" strike out the comma.

Signed and sealed this 4th day of June 1963.

(SEAL)
Attest:

ERNEST W. SWIDER
Attesting Officer

DAVID L. LADD
Commissioner of Patents