March 5, 1957 S. F. STEIN 2,783,516

BUCKLE

Filed Feb. 13, 1953

FIG. 1

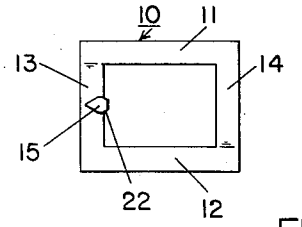


FIG. 2

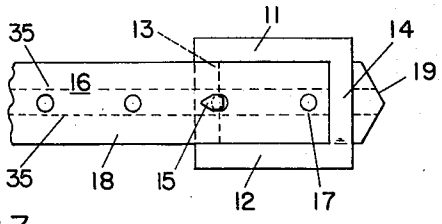


FIG. 10.

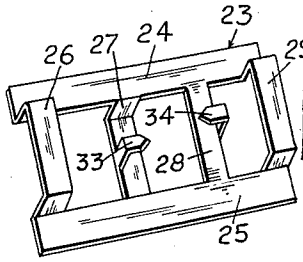


FIG. 3

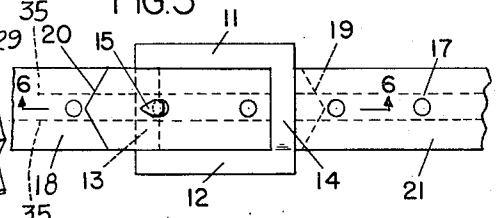


FIG. 4

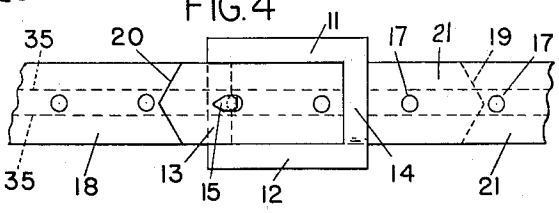


FIG. 5

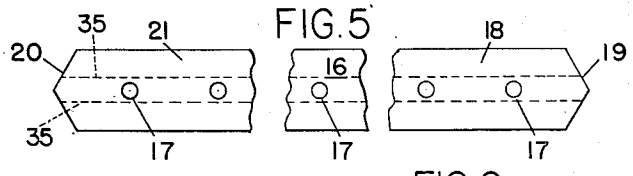


FIG. 7

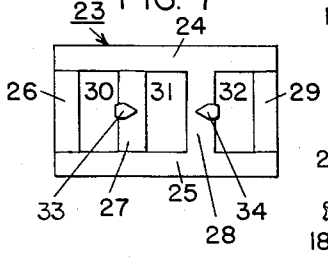


FIG. 6

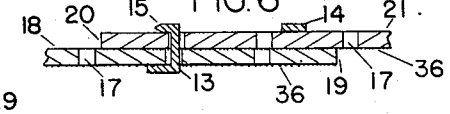


FIG. 9

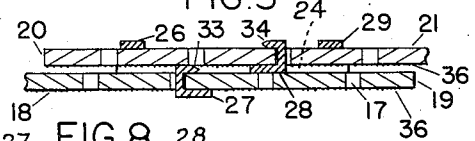
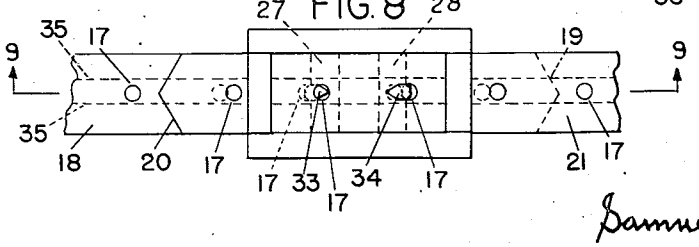


FIG. 8



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INVENTOR

United States Patent Office 2,783,516 Patented Mar. 5, 1957

2,783,516

BUCKLE

Samuel F. Stein, Milton, Pa.

Application February 13, 1953, Serial No. 336,657

1 Claim. (Cl. 24—198)

The present invention relates to belts and more particularly it pertains to the novel construction of the buckle and the assembly thereof with the belting material to provide a belt especially suited for the interior waist portion of men's trousers, as described in my Patent No. 2,538,631 issued January 16, 1951.

The buckle constructed in accordance with my present invention may be fabricated of a single piece of material, thus eliminating the assembling operation of the buckle; it may be formed of sheet metal or plastic by stamping or molding and the buckle may be easily attached to the belting material without the employment of any special tools or mechanism of any kind and the belt may be conveniently closed when on the body of the wearer and released when desired.

Other advantages of the invention will be apparent from the following specification and the accompanying drawing, in which:

Figure 1 illustrates the front view of a buckle embodying my invention;

Figure 2 illustrates the buckle shown in Figure 1, as being attached to one end portion of the belting material;

Figure 3 illustrates a portion of a belt having a buckle and showing the opposite end portion of the belt engaged with the buckle as when around the waist portion of the wearer;

Figure 4 illustrates the buckle in engaged relation with the belting as when the waist circumference of the wearer is reduced;

Figure 5 illustrates the belting material having perforations suitably spaced through its entire length;

Figure 6 is a sectional view on line 6—6 of Figure 3;

Figure 7 illustrates a modified buckle construction;

Figure 8 illustrates the modified buckle as being attached to one end portion of the belting material and the opposite end portion thereof being engaged with the buckle as when around the waist portion of the wearer;

Figure 9 illustrates a sectional view on line 9—9 of Figure 8; and

Figure 10 illustrates a perspective view of Figure 7.

Referring to Figure 1, numeral 10 represents a buckle constructed in accordance with my invention, said buckle comprising horizontal bars 11 and 12; cross bars 13 and 14; a hook 15 is bent over cross bar 13 and extends in an outwardly direction in relation to the buckle; 16 represents belting material which may be of suitable textile banding, webbing, leather or plastic material; 17 represents perforations suitably spaced longitudinally. Said perforations may be reinforced with eyelets or without eyelets in case of leather or plastic. The space between the bent over hook 15 and the adjacent cross bar 13 is sufficient for the reception of two thicknesses of belting material 16 in order to securely hold the belt around the waist portion of the wearer while the hook 15 normally holds one thickness of the belting 16 to the end portion of which the buckle is initially attached when the belt is produced.

To provide a suitable belt to be worn in the interior of the waist portion of trousers, as described in my Patent No. 2,538,631 referred to above, due consideration is to be given to the following details. The belt must possess an appreciable degree of rigidity in order to pass through the tunnel loops, as shown in that patent, and the belt must also comprise a suitable degree of flexibility in order to flex around the circumference of the body of the wearer. However, when the belt material is rigid and a buckle is applied to the end portion thereof in the conventional manner, as by looping the belting material around the cross bar of the buckle, the loop thus produced presents a bulge at the waist portion of the wearer under the waist portion of the trousers and the bulge presents an unsightly appearance. The bulge referred to is entirely eliminated when the buckle is constructed in accordance with my invention and attached to the belting material in a manner described in this specification.

Numeral 18 represents a portion of the belting material with which hook 15 is initially engaged; it need not be disengaged therefrom unless the size of the belt requires changing; numeral 19 is the end of said portion 18; 20 is the opposite end of portion 21. It will be seen that the end 19 extends outwardly slightly further than the outer edge of the cross bar 14 when perforation 17 (second from end 19 in the drawing) is engaged with hook 15. When it is desired to close the belt as when on the body of the wearer the end 20 is passed under cross bar 14 and over portion 18 and pulled towards hook 15 and made to overlie said portion 18; the belt is thus securely held around the waist portion of the wearer. However, when it is desired to adjust the belt to fit around a smaller circumference of a person, then end 19 is moved further beyond the cross bar 14 to correspond with the desired size adjustment and the perforation 17 then adjacent to hook 15 is made to engage with said hook, and when the belt is closed, portion 21 is overlying end 19 in its extended position; the end 20 need not extend further than the outer edge of cross bar 13 to any great extent if desired, and thus the normal loop or keeper to hold the normally extended end of a belt may be eliminated. However, an additional cross bar may be provided at the end of the buckle suitably spaced in parallel relation with cross bar 13 and suitably raised to keep end 20 of portion 21 in position, if desired.

To compensate for the two thicknesses produced when portion 21 is made to overlap portion 18 cross bar 13 is depressed relative to the plane of bars 11 and 12, while cross bar 14 is raised relative to said plane.

When the belt described is used as an inner belt for trousers as proposed in my Patent No. 2,538,631 it is desirable to have the buckle fabricated of non-metal material to prevent discoloration of the wearer's undergarments which would be the result when metal buckles are used. However, the belt described herein may also be worn exteriorly around the waist portion of trousers or dresses, in which case the buckle may be fabricated of metal or non-metal material.

The hook 15 may be bent over as described before or may be struck of the buckle and formed in the shape of a tongue. The hook 15 may be provided with notches 22 to hold portion 18 more securely when perforation 17 is engaged with said hook.

Figures 7, 8, 9 illustrates a buckle of modified construction. Numeral 23 represents the buckle comprising horizontal bars 24 and 25; cross bars 26, 27, 28 and 29; cross bars 26 and 29 are suitably raised relative to the plane of bars 24 and 25; cross 27 is suitably depressed relative to said plane; numerals 30, 31 and 32 represent slots between cross bars 26, 27, 28 and 29 respectively; hook 33 is formed of material left intact when slot 30 was produced, said hook is bent over cross

bar 27 inwardly in relation to the buckle while hook 34 is formed in the same manner and is made to bend over cross bar 28 in the opposite relation to hook 33. When it is desired to attach buckle 23 to the belting 16, the portion 18 is passed through slot 30 upwardly and through slot 31 downwardly and end 19 of portion 18 is made to reach slightly beyond the outer edge of cross bar 29. By engaging tongue 33 with the adjacent perforation 17 the buckle 23 is attached to portion 18 of the belting 16.

When it is desired to close the belt, as when on the body of the wearer, the end 20 of portion 21 is inserted between the underside of cross bar 29 and the adjacent surface of portion 18 and pulled towards hook 34, end 20 is passed over hook 33 and under bar 26 outwardly. However, when it is desired to adjust the belt to fit around a smaller waist circumference of a person, the end 19 is made to extend further beyond the cross bar 29 to correspond with the desired size adjustment and the preforation 17 adjacent to hook 33 is made to engage with said hook; when the belt is closed portion 21 of the belt is overlying end 19, which is then in an extended position, as shown in Figures 8 and 9. In this modified construction an additional cross bar 26 is provided, suitably spaced from cross bar 27, thus providing slot 30 therebetween. Cross bar 26 serves to keep in position end 20 of portion 21 and is suitably raised above the plane of bars 24 and 25.

The belting 16 may be fabricated in continuous rolls with the perforations 17 longitudinally spaced to correspond with the conventional adjustment spacings of belt perforations now in use. In this manner the belting will be ready for use in this respect and thus eliminating the operation of perforating each belt separately; the belting may thus be utilized for various belt sizes due to the presence of perforations throughout the entire length of the belting.

It will be seen that the belting when fabricated of plastic possessing an appreciable degree of rigidity and when end 19 of the belting extended beyond the cross bar 14, as clearly seen in Figures 3 and 6, said belting serves as a guide for the passage of end 20 of portion 21.

To provide a plastic belt which will resist stretching with use, there may be incorporated in the belting strands 35 produced of a nonstretchable desirable substance; in this manner the perforations 17 will retain their original size.

The underside of the belt may have a rough surface to provide a gripping medium for retaining the wearer's shirt over his hips and thus prevent the lower portion of his shirt from slipping upward and outward over the top of the trousers. Numeral 36 designates the roughened surface in Figures 6 and 9.

Although the hooks 15, 33 and 34 are illustrated in the drawing as being formed as integral parts of the respective buckles, it is also feasible that the hooks be applied to the respective buckles in the form of separate members suitably associated therewith to serve the purpose of engaging with the respective perforations 17 of belting 16. Of course, the perforations 17 and the hooks

described herein will be shaped so they engage each other in a desirable manner. However, a suitable notched projection to engage with the perforation may be provided with the buckle instead of the hook shown in the drawing.

While I have illustrated and described a preferred embodiment of my invention, it is understood that the same is susceptible of modification in various forms without departing from the spirit and scope of my invention. I therefore desire that what I claim be given broad interpretation and be limited only by the prior art pertaining thereto.

I claim:

A belt buckle adapted for a belt to be worn interiorly of the waist portion of the wearer's garment; said belt comprising flat belting material of appropriate length and having perforationas at the end portions thereof; said buckle comprising a frame having upper and lower horizontal bars connected by oppositely disposed vertical end bars at the respective side ends of said buckle frame; intermediary vertical bars spaced in relation to one another disposed between said end bars and spaced therefrom; one of said intermediary bars being depressed with respect to said end bars and a second intermediary bar being depressed with respect to the first mentioned depressed intermediary bar; the second mentioned intermediary bar having a projecting member extending substantially to the level of the first mentioned intermediary bar; the first mentioned intermediary bar having a projecting member extending substantially to the level of the adjacent vertical end bar; the first mentioned projecting member being adapted to engage with a perforation of one of said end portions of the belt material to retain the belt material thereto; the second mentioned projecting member being adapted to engage with a perforation of the opposite end portion of said belt material, thus closing the belt; the characteristic of the belt buckle structure being so that the horizontal bars of the buckle frame are substantially level with the portion of each of said end portions disposed within the area of said buckle frame when the belt is closed, whereby bulging at the region of the buckle frame with respect to the body of the wearer and the adjacent waist portion of the garment is reduced to a minimum.

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