Aug. 14, 1923. 1,464,800

F. SARTH

PROTECTIVE DEVICE FOR THE JOINTED ENDS OF BANDS

Filed July 18. 1921

Fig. 1

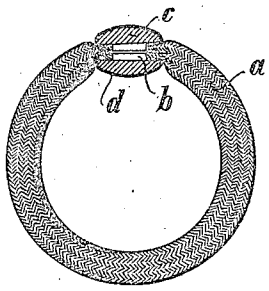



Fig. 2

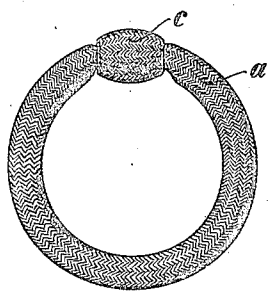
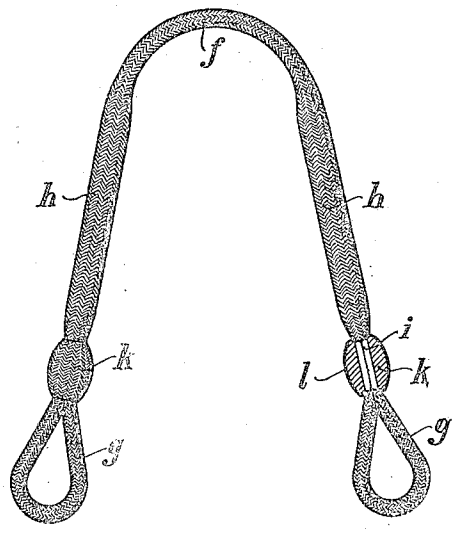



Fig. 3




Witnesses:

Fritz Kemnecke

Wolfram Sperner

Inventor:

Friedrich Sarth

Patented Aug. 14, 1923. 1,464,800

# UNITED STATES PATENT OFFICE.

FRITZ BARTH, OF BARMEN-RITTERSHAUSEN, GERMANY.

## PROTECTIVE DEVICE FOR THE JOINTED ENDS OF BANDS.

Application filed July 18, 1921. Serial No. 485,705.

*To all whom it may concern:*

Be it known that I, FRITZ BARTH, a citizen of the German Empire, residing at Barmen-Rittershausen, Germany, have invented certain new and useful Improvements in Protective Devices for the Jointed Ends of Bands, of which the following is a specification.

My invention relates to devices for holding, or for the suspension of, wearing apparel or portions of same, in particular to sleeve-holders, the tab-forks of braces or suspenders and the like, which consists wholly or in part of elastic or inelastic corded elements or bands, the ends of which are closed or fastened by means of clamps, sheathings or other sharp-edged connecting devices. Holders or suspenders of this kind as hitherto made involve the drawback that the sharp edges of the clamps, connecting sheathings or the like exert a chafing or fraying action on the wearing-apparel, in the case of sleeve-holders on the sleeve of the shirt or blouse, in the case of the tab-forks on the underclothing and the lining of the vest. This chafing action leads to rapid deterioration or wear of the particular portions of the underclothing or garment. Moreover, in known holders and suspenders the clamps, sheathings or the like have had to be so manufactured as from rust-proof material so as to avoid the effects of rust-spots and so on.

My invention obviates these drawbacks and provides a protective device for holders or suspenders of the above described kind. The essential feature of the invention consists in the arrangement of seamless tubes of wood, celluloid or the like which are pushed over the clamps, connecting sheathings or the like and completely cover them. In that way the chafing action of the sharp-edged clamps, sheathings or the like on the underclothing or garment is entirely obviated, as well as the rapid deterioration or wear of the latter. Moreover, the clamps or the like no longer need be composed of a material free from rust or tarnish, they might on the contrary be made of ordinary sheet iron.

In order to prevent friction between the tubes and the clothing, they are jacketed with textile material. When for example, the sleeve-holder or tab-fork comprises a band of rubber or shirred fabric braided over, the tubes are likewise jacketed with a tubular braid. In that way a uniform and very pleasing appearance is also given to the holder or suspender. When wooden tubes are employed the jacketing of the same with textile material is also specially advantageous in that the surface of the wood need not be specially smoothed or polished.

In the drawings affixed to this specification and forming part thereof, two embodiments of the invention, are illustrated by way of example. In the drawings

Figs. 1 and 2 are plan views of a sleeve-holder provided with the new protector, the tube being shown in Fig. 1 in diametral section, and

Fig. 3 shows a tab-fork for braces, one of the tubes being shown also in section.

As shown in Figs. 1 and 2 the sleeve-holder consists of a band of elastic or shirred material *a* jacketed with an extensible braid. The ends of the band are connected together into the form of a ring closed on itself by means of a clamp *b* consisting of rolled sheet metal. In order to protect the sleeve of the shirt or blouse from rapid wear due to the chafing or fraying action of the sharp edges of the clamp *b*, the latter, according to the present invention, is completely covered by means of a seamless tube *c* pushed over it and consisting of wood, celluloid or the like. The tube must of course be carried on the band *a* before the ends of the latter are connected, and is pushed over them after the clamp *b* has been fixed in its place. The tube *c* is preferably bored conically, so that it becomes firmly wedged on the clamp and is thus safeguarded from accidental displacement.

As is well known, the sleeve-holder is employed for preventing the turned-up sleeve of the shirt or blouse from slipping down and it encircles the sleeve in the manner of a garter. It is evident that, with the new sleeve-holder, the metal clamp *b* cannot come into contact with the sleeve of the shirt or blouse, so that the sharp edges of the clamp cannot exert a fraying action on the sleeve, and consequently the sleeve is well preserved. The clamp *b*, since it is completely covered by the tube, no longer need be made of non-rusting material but may be made of ordinary sheet iron.

Moreover, to avoid friction between the wooden tube and the sleeve and to obviate the necessity of thoroughly smoothing or polishing the tube, it is jacketed with textile

material, for example, a material braided in the same manner as the band of elastic or shirred material. The two ends of the braided jacket *d* are in that case inserted into the hole in the tube and therein secured as by means of an adhesive. The jacketing of the tube also gives a perfectly uniform and pleasing appearance to the sleeve-holder, and not only the band itself but also the tube can be brought into harmony with the character and colour of the wearer's garment. Moreover, by the choice of a differently coloured, or a different kind of yarn for the jacketing of the band or of the tube special effects may be obtained.

Even when the tube is not of wood, but is of a material, such as celluloid or the like, which has a smooth, frictionless surface, it is desirable, for the sake of giving a pleasing appearance, that the tube be jacketed.

The tab-fork shown in Fig. 3 consists of a braided shirred material which is made in elastic at its middle portion *f* and at its two ends *g* by a system of tight interbraiding, while the portions constituting the prongs *h*, *h* of the fork are given their full elasticity. The inelastic ends *g*, *g* of the shirred fabric are formed into the button-engaging eyes and are each closed, for example, by means of clamps *i*, *i* consisting of rolled sheet metal strips. The said eyes might of course be composed of a separate piece of shirred fabric and be secured to the ends of the limbs *h*, *h* by means of iron clamps.

In order to protect the underwear and the vest-lining from being frayed by the sharp edges of the sheet metal clamps *i*, *i* according to the present invention seamless tubes *k*, *k* are pushed over the clamps, these tubes being of wood, celluloid or other suitable material. The tubes *k*, *k* are carried on the shirred fabric before the eye is made, and are pushed over the clamps *i*, *i* after same have been closed. As in the case of Figs. 1, 2, the tubes may have a conical hole, whereby they are prevented by the wedging action from being accidentally shifted from position.

The tubes *k*, *k* serve the same purpose in the case of the tab-fork as in that of the sleeve-holder, viz. they completely cover the metal clamps and thus prevent the sharp edges of the latter chafing the undercloth-ing or vest lining, whereby these portions of wearing apparel are preserved from rapid deterioration or wear. The clamps may again consist of ordinary sheet iron. In order to allow no substantial friction between the tubes *k*, *k* and the underclothing or vest lining, the tubes are also in this case jacketed with textile material, this being braided over in the same manner as the shirred fabric composing the tab-fork, and the ends of the braided sleeve *l* being inserted into the holes of the tubes *k*, *k* and there fastened. In this way not only is a uniform and pleasing appearance given to the tab-fork but the advantage is also obtained that the tubes, made for example of wood, need not be smoothed or polished.

My invention is not of course limited to the examples illustrated, but may have embodiments of other forms. The tubes, in particular, might have some suitable exterior form other than the barrel-like form of the illustrated embodiments. It is essential only that they will expose no sharp edges or projecting corners of any kind. Moreover, instead of a circular cross-section, they might have a flat one, for instance, one of elliptical form.

The tubes are manufactured and braided over quite independently of the tab-fork or sleeve-holder and in such manner that they will be quite ready to be mounted on the holder or suspender.

The new device may be applied not only to sleeve-holders and brace-suspenders but also to other holders or suspenders for wearing-apparel, for example, to stocking-suspenders. The sleeve-holder shown in Figs. 1 and 2 by suitable dimensioning might serve as a garter. In this case a tube of flat section would be preferred.

I claim:

1. In a joint protecting device in combination, a clamp adapted to bridge the joint, a a seamless smooth-sufaced, non-metallic protective sleeve surrounding said clamp and a covering of textile material on said sleeve.

2. In a joint protecting device in combination, a clamp adapted to bridge the joint, a seamless protective sleeve surrounding said clamp and a braided covering of textile material on said sleeve, the ends of said covering being fixed to the inner wall of said sleeve.

In testimony whereof I affix my signature.

FRITZ BARTH.