Jan. 19, 1937. A. GALVÈS 2,068,173

RESILIENT COMPRESSION ANNULI

Filed Oct. 25, 1934

Fig. 1

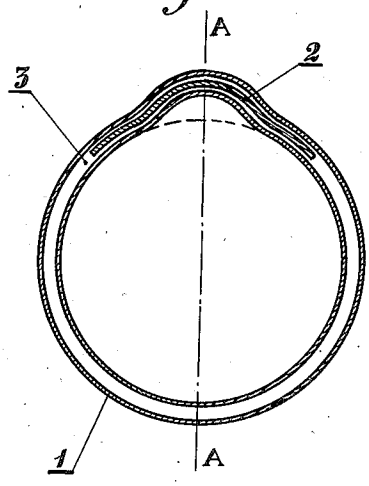


Fig. 2 Fig. 3 Fig. 4

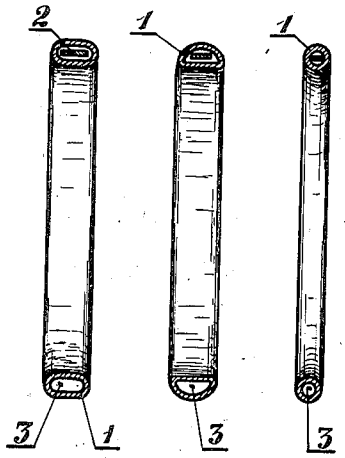
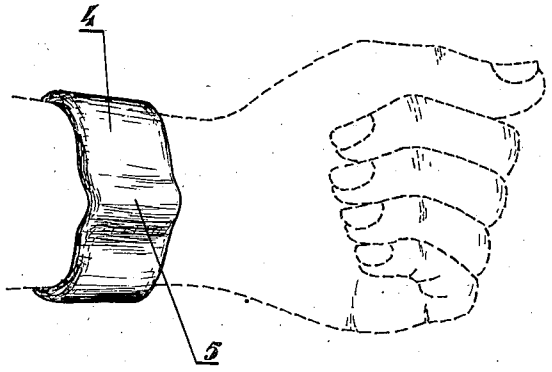


Fig. 5



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RESILIENT COMPRESSION ANNULI

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1 Claim. (Cl. 128—79)

The present invention relates to a resilient annulus intended to be placed around a body for exerting on it a certain pressure and for protecting a part of this body from any pressure. Such a compression annulus is of use particularly for compressing a part only of a member.

The device according to the present invention is constituted by a hollow annulus of resilient material, in the interior of which is housed a relatively rigid segment of substantially V-form.

In the accompanying drawing:

Figure 1 shows by way of example a cross section of an annulus according to the present invention.

Figure 2 is a section on the line A—A of Figure 1.

Figures 3 and 4 are sections relating to annuli of different sections and

Figure 5 shows a wrist band constructed in accordance with the present invention.

The device shown in Figures 1 and 2 consists of a hollow annulus 1 of rubber or other resilient material, the interior cavity 3 of which contains over a portion of its extent a relatively rigid segment 2 having substantially the form of a V. This segment may be made of a resilient metal, but it is also possible to construct it of a malleable material such as aluminum or annealed brass, which enables it to be readily deformed for giving it a suitable profile.

In Figure 2 is shown an annulus having a substantially elliptical section. It is also possible to adopt a semi-elliptical section, such as that shown in Figure 3, or a circular section as indicated in Figure 4.

The resilient annulus according to the present invention may be manufactured in any suitable manner.

For example, it is possible to commence with a non-vulcanized rubber band, which is applied in a mould, the internal cavity of which has the contour which it is desired to obtain for the annulus. The segment 2 is placed in position in the projecting part of the contour and the two longitudinal edges of the rubber band are brought together so as to form a tubular annulus. Vulcanization is then carried out and the annulus is ready for use.

A constructional modification consists in employing a mould, the cavity of which has an exactly circular contour, the segment then having the form of an arc of the same radius. The longitudinal edges having been brought together, after placing the segment in position, and the whole having been subjected to vulcanization, the metallic segment is given the suitable profile by deforming it either by hand or by means of a suitable press.

It is also possible to obtain the compression annulus according to the invention by commencing with a vulcanized rubber tube. A length is cut off from this tube exactly equal to that of the contour of the annulus to be obtained, and the two ends of this tube are threaded on to the two arms of the segment, so that they bear against each other at the summit of the segment. The joint is subjected to vulcanization, by which process the two ends of the tube are welded together.

The device according to the invention is capable of numerous applications. More particularly, it is possible to utilize it in medical and orthopaedic practice for exerting a pressure on a member, while protecting a part of this member, for example an artery, a vein, a varicose vein, a sore, a canal and so forth, from the pressure.

Particularly an annulus in conformity with the invention may be engaged around the male generative organ in order to exert on the periphery of this organ an elastic tightening while protecting from any pressure the canal of urethra. Such a device may be used to facilitate the erection and consequently the fecundation.

Likewise an apparatus in conformity with the invention may be used as a garter to maintain a hose or half-hose without compressing the saphena.

When the segment is made of malleable material, the shape of this segment may easily be modified, so as to obtain the suitable protection, or to vary the pressure exerted by the flexible part of the annulus.

By way of example, a wrist band constructed in accordance with the present invention is shown in Figure 5.

This device comprises a hollow rubber annulus 4 which is placed around the wrist and has a projecting part 5 in the interior of which is housed a relatively rigid V-shaped segment. The effect of this projecting part is to relieve the artery from any pressure.

Of course, the invention is not limited to the forms of construction shown, which have been given purely by way of example, and modifications of detail may be introduced without departing from the scope of the invention. In particular, the internal segment may have any

angular or rounded profile ensuring the desired protection or relief from pressure.

I claim:

A device of the character described comprising an elastic annulus of tubular cross-section and a relatively rigid segment positioned within said annulus and having a portion intermediate its ends bulged outwardly of the annulus to accommodate a projection on an organ to which the device is to be applied, said segment being formed of malleable material to enable the segment to be manually deformed while in the annulus to vary the contour of said outwardly bulged portion.

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