Feb. 4, 1936. F. COSSOR 2,029,912

SPHYGMOMANOMETER BANDAGE

Filed May 22, 1934

Fig. 1.

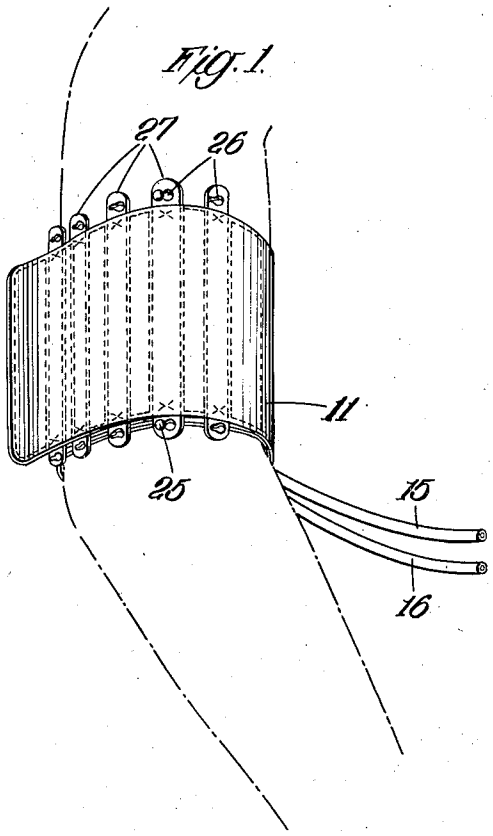


Fig. 2.

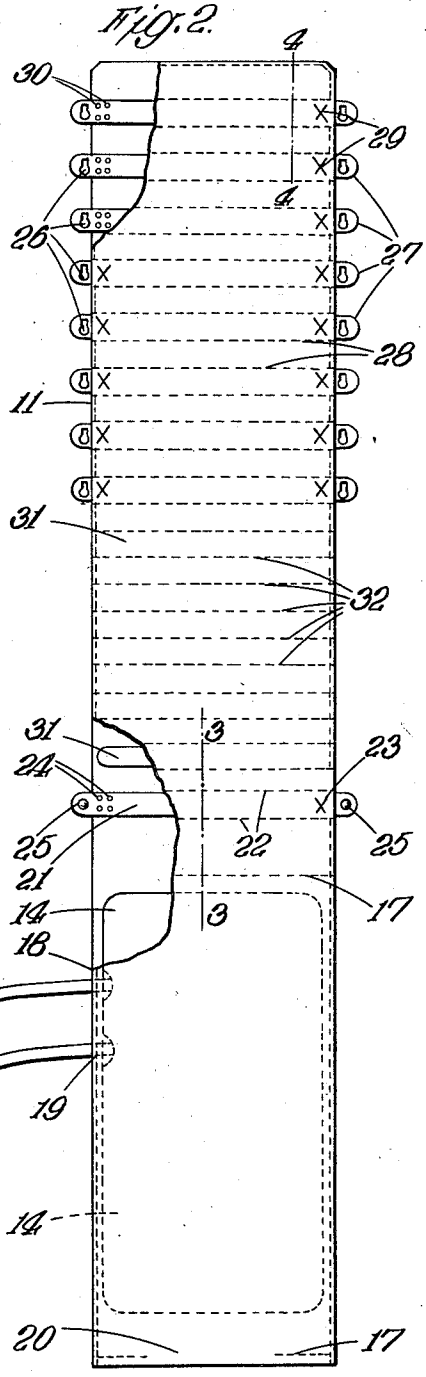


Fig. 3.

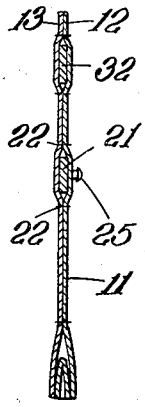
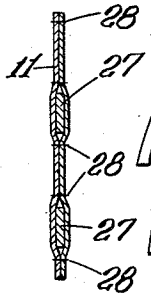


Fig. 4.



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SPHYGMOMANOMETER BANDAGE

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In Great Britain December 22, 1933

2 Claims. (Cl. 128—327)

In the employment of sphygmomanometers it is necessary to secure e. g. around the arm of a patient, an elastic bag, usually of India rubber which is connected by means of flexible tubes with the instrument. It is also necessary, in order to obtain accurate measurements, to ensure not only that that portion alone of the bag which is in contact with the patient shall be elastic, and that the outer covering shall be as rigid as possible, but that the device shall be readily applicable to different sizes of limbs, and various arrangements have been proposed for effecting this desirable result. For instance, an India rubber bag has been mounted in a silk pocket provided on the inner side of a broad leather strap adapted to be fastened around the arm of a patient by means of tapes, straps and buckles or the like, and a bandage-like strip of silk tapering towards one end and having a pocket for the India rubber bag at the other, has also been used by winding it upon itself around the arm and tucking the narrow end between the turns.

It has, however, been difficult so to arrange a device of this character that, whilst attaining the desired result, it shall nevertheless be capable also of being both easily and quickly placed in position and removed therefrom, and it is the object of this invention to provide a device which will be readily portable in the usual instrument case and will combine all the various desiderata referred to above.

According to the present invention the usual India rubber bag is mounted in a pocket in one end of a substantially parallel sided silk or like bandage of adequate length, the remaining portion of the bandage being stiffened by laterally extending strips of metal or other suitable material disposed at short intervals therealong, that strip nearest to the bag being furnished at its ends with outwardly projecting studs and a suitable number of those strips towards the other end of the bandage being formed at their ends with keyhole slots for engagement with said studs when the device has been wrapped around the arm of a patient.

Preferably the laterally extending strips are secured in pockets or slots formed in the bandage, for instance, by sewing through holes formed in or near the ends of the strips, which latter may be of German silver or similar untarnishable material.

One form of the invention will now be described with reference to the accompanying drawing of which Figure 1 is a perspective view of a sphygmomanometer bandage applied to the arm of a patient, Figure 2 is a face view showing the device extended, Figure 3 is a section on the line 3—3 of Figure 2 and Figure 4 is a section on the line 4—4 of Figure 2.

Referring to the drawing a silk bandage 11, composed of two layers of silk 12, 13 encloses at one end thereof a rubber bag 14 which is furnished with tubes 15, 16 adapted to communicate with the usual bulb and sphygmomanometer. The bag 14 is secured in position by stitching 17, apertures 18, 19 being formed to accommodate the tubes 15, 16 whilst an aperture 20 formed at that extremity of the bandage 11 which houses the bag 14, permits ready access to the latter if necessary. Adjacent the inner end of the said bag 14 is a metal strip 21 which is secured in position by stitching 22, and is held against lateral movement by stitching 23 passing through apertures 24 formed in said strip. The projecting ends of the strip 21 are formed with outwardly and transversely extending studs 25 adapted to engage with key slots 26 formed in the projecting ends of one or other of corresponding metal strips 27. Said strips 27 are positioned by stitching 28 and are secured against lateral movement by stitching 29 passing through apertures 30 formed near the ends thereof. Between the strips 21 and 27 there are provided a number of shorter metal strips 31 enclosed within the silk bandage 11 and secured in position by stitching 32, the strips 21, 27 and 31 being spaced apart at such short intervals as will prevent bulging of the bag 14 therebetween.

The device is placed in position with that part of the bandage containing the rubber bag 14 in contact with the arm of the patient and the remainder of the bandage 11 is wound therearound whereupon the studs 25 are engaged with the slots 26 in the nearest slotted strip 27, said strips 27 being spaced sufficiently closely to enable such engagement always to be effected without leaving any appreciable slackness in the bandage. The usual slight inflation of the bag 14 then tightens the device on the arm and the combined effect of the substantially inextensible bandage and the stiffness of the laterally extending strips prevents expansion of the bag outwardly. When not in use, the device may be rolled up readily and stored in the usual instrument case.

I claim:—

1. A sphygmomanometer bandage comprising a bag portion enclosing an inflatable bag, a binding strip portion continuous with and of a length to extend around the arm and over said bag por-

tion, a plurality of transverse stiffening stays in said strip portion arranged to provide a relatively rigid reaction wall for pulsations in the bag when the latter is inflated, certain of said stays in the strip portion being longer than the width of the strip so that their ends project therefrom and cooperating fastening means on the projecting ends of said longer stays for adjustably securing said bag portion in contact with the arm with the strip portion extending thereover.

2. A sphygmomanometer bandage as in claim 1 wherein the projecting ends of one of the longer stays are provided with outwardly extending lugs and the projecting ends of the other longer stays have buttonhole slots therein for cooperation with said studs in adjusting the bandage to the arm.

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