

Improvements in surgical splint bandages / [John Kean].

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COMPLETE SPECIFICATION.

Improvements in Surgical Splint Bandages.

I, JOHN KEAN, Physician, of No. 157, Clark Street, Chicago, Illinois, one of the United States of North America, do hereby declare the nature of this invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement:—

5 This invention relates to improvements in surgical splint bandages and more particularly a splint bandage designed to be held yieldingly in position on the part to which the same is adapted to be applied and designed for use in the treatment of varicose veins and many other diseases and injuries to certain members of the body.

10 The invention consists of the matters hereinafter described and more fully pointed out and defined in the appended claims.

In the drawings:—

Figure 1 is a side elevation of a device embodying my invention.

Figure 2 is a perspective view of the splints showing the same separated.

15 Figure 3 is a perspective view partly broken, of the same showing the sheath in position.

Figure 4 is a section on line 4—4 of Figure 1.

Figure 5 is a central horizontal section taken on Figure 3.

Figure 6 is a section taken on line 6—6 of Figure 3.

20 Figure 7 is a fragmentary view illustrating one way of connecting the splints.

Figure 8 is a perspective view of one form of my invention.

Figure 9 is a perspective view of a variation of my invention.

Figure 10 is a perspective view of the sheath.

As shown in said drawings A—A indicate two splints concave on the inner side
25 and rounded on the outer side, and preferably tapering and slightly curved longitudinally as indicated in Figures 1, 3 and 8. Said splints are provided at one end with a flange *a* forming an oblique angle with the axis of the splints as indicated in Figure 1. Said flanges as shown are integral with the splint and relatively thick at the point of union therewith and taper to the outer edge which
30 is relatively thin. Said splints are adapted to be secured on each side of the member to be treated with the flanged end abutting against another member or part of the body. Said splints and flanges may be constructed of any desired material preferably however, vulcanized rubber or the like is used, inasmuch as by the use of the same the member may be held with sufficient rigidity while
35 providing a degree of resiliency. As shown the splints are relatively thick along a median line and the edges of the same are thin and soft. The tapered end of each splint is chamfered or rounded over from the inner side providing a relatively soft contact surface.

Said splints may be secured upon the member to be treated in any desired
40 manner. As shown, however, and preferably a sheath B of thin rubber or other suitable material, preferably elastic, is drawn over the member and the splints as indicated in Figure 3. One end of said sheath tapers longitudinally and may be provided with a strengthening band if preferred to provide greater strength so

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that when the sheath is drawn over the member and splints as shown in Figures 3 and 4 said smaller end of the sheath encloses and draws inwardly the ends of the splints. The sheath as a whole acts to hold said splints yieldingly in close engagement with the member. Obviously, said splints may be constructed separately or may be made in one or may be connected as shown in Figures 3, 5, 7, 8 and 9, in which event the same will preferably be connected at the tapered end by means of a relatively thin band a^1 of rubber or the like more fully shown in Figures 2 and 3. If preferred said connection may be at the lower edges only of the splints as indicated by a^3 in Figure 7 and a thin flange a^2 of the same or other material may be provided on the upper edge of each splint adapted to be engaged manually in securing the splints upon the member. The splints in variation shown in Figure 9 have not only a relatively thin connection between their lower edges which in this case extends the entire length thereof, but are also connected at the upper edges by thin transverse elastic bands a^4 extending across and secured on each splint. When it is desired to place the splints in position the bandage is readily dilated to permit the member to be placed therein. Obviously, a sheath may be used with splints so connected, if preferred. The end flange a^5 in this construction is similar to that already described, but if preferred the flanges may be connected above and below as shown.

The operation of my device is as follows: The splints being relatively thick in the middle or median line and designed to be secured laterally of a member are a close approximation to nature and may be said to furnish an artificial muscle mechanically acting to reinforce the muscles located laterally in the member. The upper and lower edges of said splints being relatively thin and soft are not liable to produce injury by chafing of the more delicate parts of a member. Obviously, splints constructed in accordance with my invention may be used for treatment of varicose veins and many diseases and injuries, and may be applied to any of several members or organs. So also many details of construction may be varied from those herein shown without departing from the principle of my invention.

Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is:—

1. A surgical splint having the exterior rounded and the edges and ends relatively soft and thin.

2. In connection with the subject matter of Claim 1 forming the splint with the interior concave and the edges and ends relatively thin and soft, as herein described and shown in the drawings.

3. In connection with the subject matter of Claims 1 and 2, forming the splint with one end resilient and soft and the other end with a flange oblique to the axis of the splint.

4. In connection with the subject matter of Claims 1, 2 and 3 forming the splints tapering and curved longitudinally.

5. In connection with the subject matter of Claims 1, 2, 3 and 4 covering the splint with a sheath of resilient material.

6. In connection with the subject matter of the preceding claims, forming the splint in two parallel longitudinal sections.

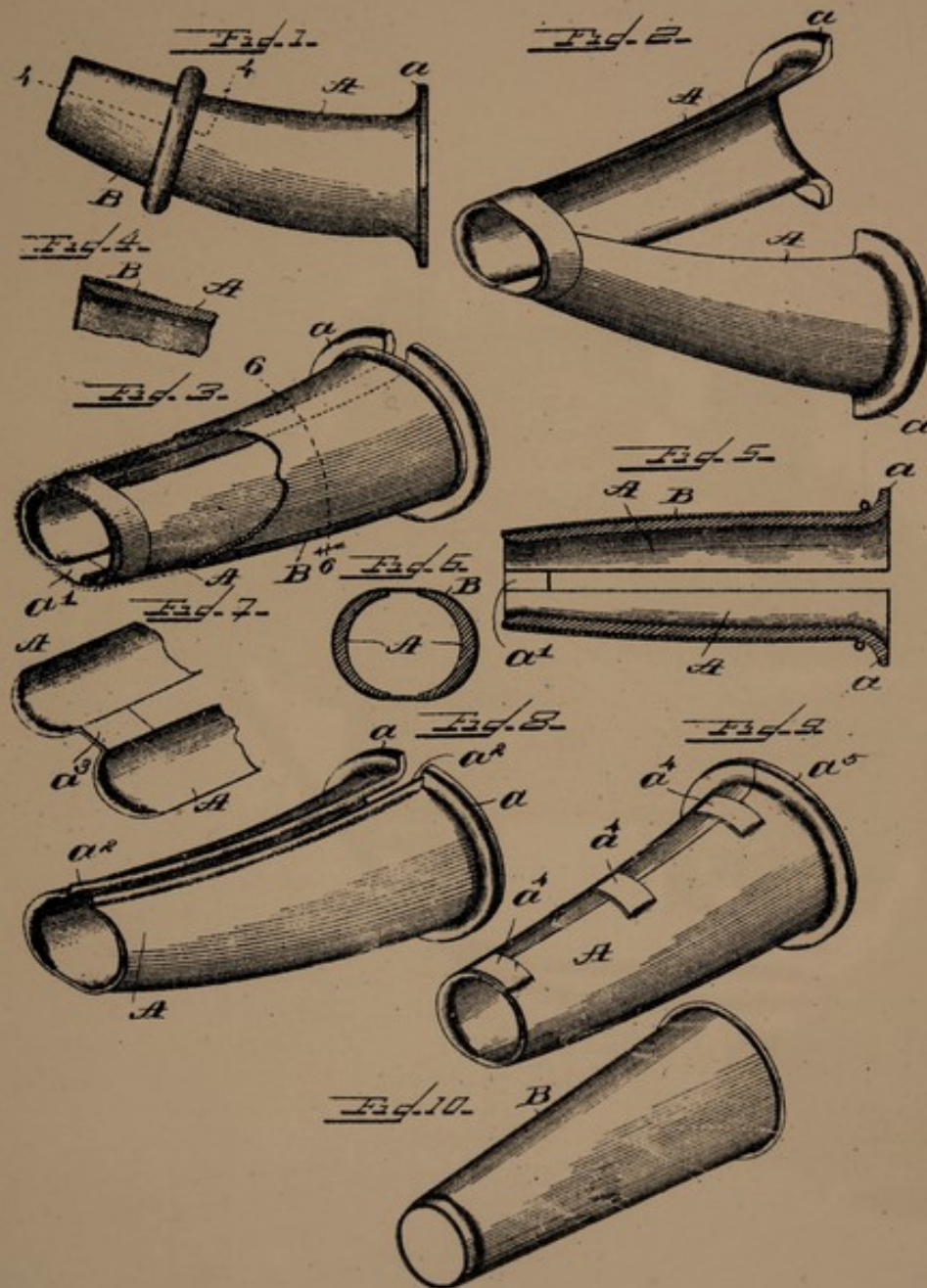
Dated this 18th day of December 1900.

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[This Drawing is a reproduction of the Original on a reduced scale.]

