L. J. SANDERS.

PROTECTOR.

APPLICATION FILED MAR. 29, 1921.

1,417,414.

Patented May 23, 1922.

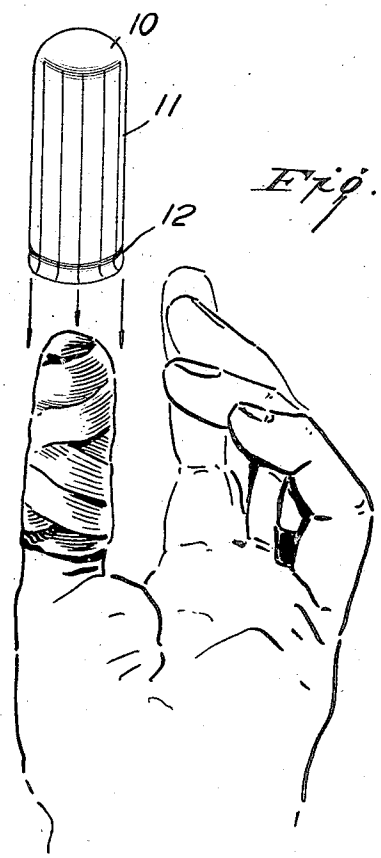


Fig. 1.

Fig. 2.

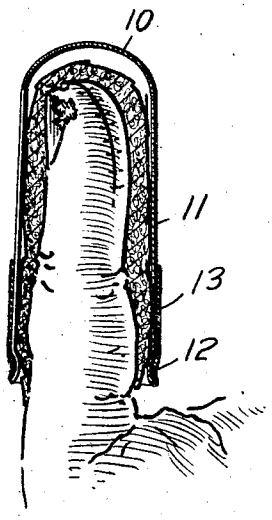


Fig. 3.

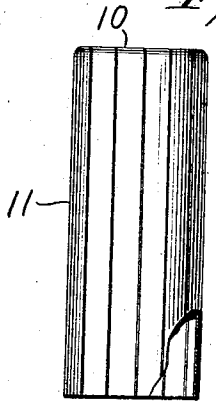
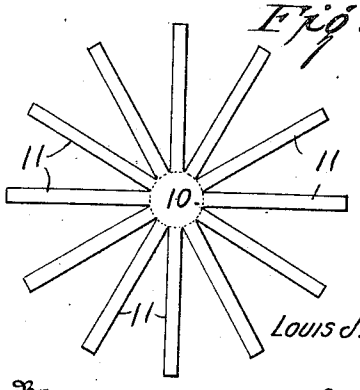


Fig. 4.



Inventor

LOUIS J. SANDERS

By Franklin H. Hagh

Attorney

UNITED STATES PATENT OFFICE.

LOUIS J. SANDERS, OF TAKOMA PARK, MARYLAND.

PROTECTOR.

1,417,414. Specification of Letters Patent. Patented May 23, 1922.

Application filed March 29, 1921. Serial No. 456,732.

To all whom it may concern:

Be it known that I, LOUIS J. SANDERS, a subject of Denmark, residing at Takoma Park, in the county of Montgomery and State of Maryland, have invented certain new and useful Improvements in Protectors, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to protectors for members of the human body and has for an object to provide a device which may be made in various sizes for various purposes and to cover a wound or a painful member to protect such member from injury.

A further object of the invention is to provide a housing or enclosure to enclose a finger or other member of the body presenting a comparatively rigid exterior when applied providing space within for accommodation of the member protected thereby against external injury.

A further object of the invention is to provide a protector embodying a sheet of relatively unyielding material having means for enclosing and protecting a member adapted to be varied in size to accommodate members of varying sizes and to provide a chamber within which the member is accommodated.

With these and other objects in view the invention comprises certain novel features, elements, parts and functions as disclosed in the drawing, together with mechanical equivalents thereof, as will be hereinafter more fully described and claimed.

In the drawings:

Figure 1 is a perspective view of a hand with a protector positioned relative thereto to be applied to the thumb;

Figure 2 is a transverse sectional view through the protector and an inner dressing, showing a thumb located therein;

Figure 3 is a view of the device in side elevation, a fragment being broken away, and

Figure 4 is a view of the blank from which the protector is formed.

Like characters of reference indicate corresponding parts throughout the several views.

As shown in the drawing the present invention is illustrated for example only as applied to the thumb of a user. The device is capable of being produced in various sizes for protecting not only a digit but also a stump, as for instance, an arm or a leg. Its utility, will, however, be largely in the protection of injured digits and its description in relation thereto will be understood as in no way limited to size thereby, and that it will be produced in such sizes and assortments as use and the trade may require. It essentially comprises a sheet which may be of any material desired, as for instance, metal, fabric, paper, leather, rubber or other material, the requirement being that it be comparatively unyielding, but not rigid.

The device is cut having a central disk with a plurality of radiating arms having substantially parallel marginal edges, as shown more particularly at Figure 4. The several arms are bent upon the circle of the central disk 10, such arms 11 forming, when bent to position, approximately a cylinder, as shown more particularly at Figures 1 and 3. The marginal edges of the arms will be slightly spaced to permit expansion and contraction, the material being sufficiently yielding to permit such expansion and contraction, to enable the user to pass the device as an entirety over the wounded member in the direction indicated by the arrows in Figure 1, to the position shown in Figure 2.

It may also be provided with a groove 12 which will be formed as individual groove segments adjacent the ends of the several arms 11 to accommodate a fastening member such as a cord, elastic band, or the like.

As shown at Figures 1 and 2 the end is formed concavo convex, while at Figure 3 it is formed as substantially a plane. The formation of the end either plane or convex is no limitation upon the present invention and will depend upon the material from which it is made and the choice of the user.

In any event there will be sufficient yielding of any of the arms 11 to permit the device to be inserted over the wounded member and when secured thereon sufficient rigidity to protect the member against external violence.

While the groove 12 is intended for and adapted to receive a cord or like fastening member, it is obvious that the device may be secured upon a digit by other means, as, for instance, the strip of adhesive tape shown at 13 in Figure 2. This strip of adhesive tape may be and in most cases will

be ordinary surgeon's plaster, but, of course, its utility is not limited thereby.

What I claim to be new is:

1. A digit protector constructed from a plane sheet of material comprising a central disk and radiating arms, the said arms being bent to encircle the axis of the disk.

2. A protector comprising a sheet of relatively unyielding material composed of a blank having a central disk and a plurality of radially extending arms with approximately parallel margins bent to substantially right angles to the plane of the disk to form a cylinder with the disk as an end.

3. A protector comprising a cylinder slitted throughout its length and having an end closing said cylinder at one end and means adjacent the opposite end for attaching a securing member.

4. A digit protector comprising a rigid terminal member larger than the digit to be encased, and strips carried by and encircling the axis of said member and forming a substantially complete enclosing structure.

5. A digit protector comprising a rigid terminal member larger than the digit to be enclosed, and strips carried by and encircling the axis of said member and forming a substantially complete enclosing cylindrical structure with a rigidly closed extremity.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

LOUIS J. SANDERS.