

(No Model.)

2 Sheets—Sheet 1.

F. A. REICHARDT.

SUTURE APPLIANCE.

No. 345,541.

Patented July 13, 1886.

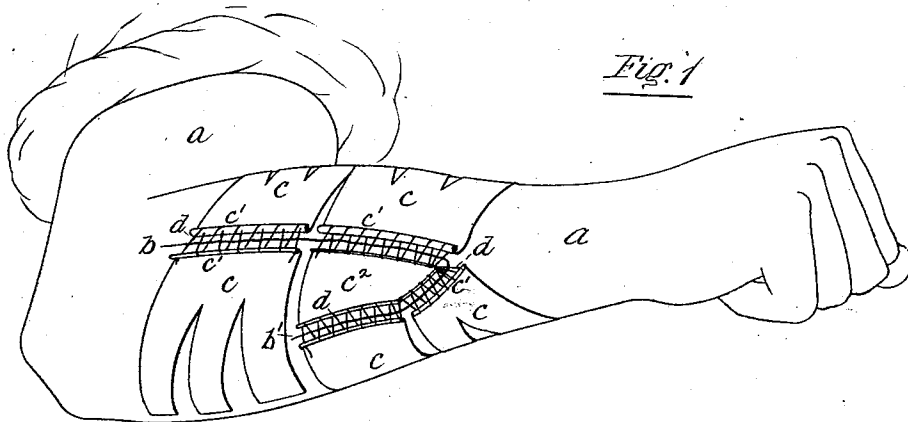


Fig. 1

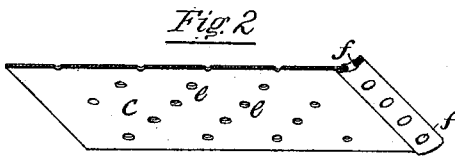


Fig. 2

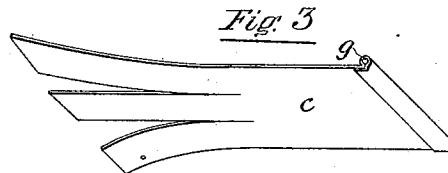


Fig. 3

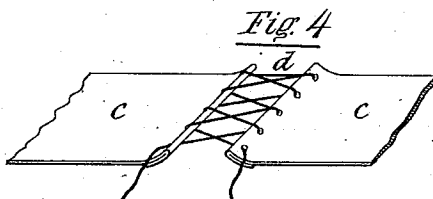


Fig. 4

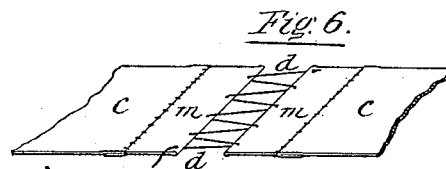


Fig. 6.

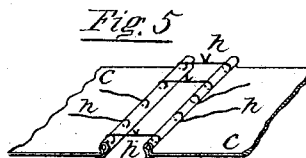


Fig. 5

Witnesses

H. D. Williams
James M. Fennerworth

Ferdinand A. Reichardt,

Inventor

per *Alfred Theobald*
Atty.

(No Model.)

2 Sheets—Sheet 2.

F. A. REICHARDT.

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Fig. 7.

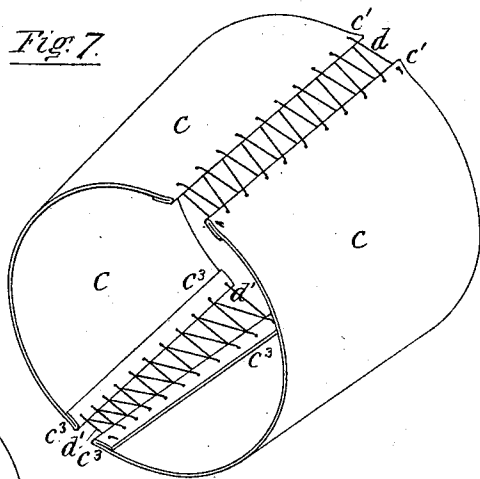


Fig. 9.

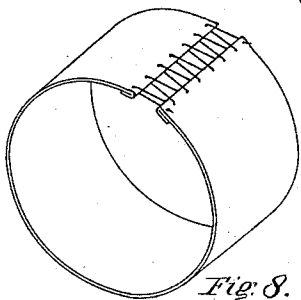
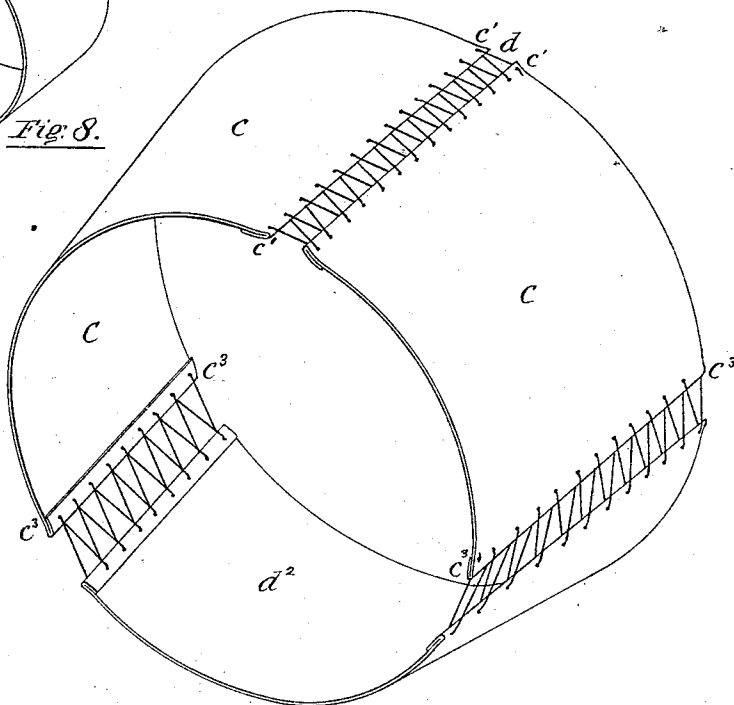


Fig. 8.



Witnesses

H. D. Williams
James M. Dinsworth

Ferdinand A. Reichardt

Inventor

per Alfred Hedlock
Atty.

UNITED STATES PATENT OFFICE.

FERDINAND A. REICHARDT, OF ELIZABETH, NEW JERSEY.

SUTURE APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 345,541, dated July 13, 1886.

Application filed July 10, 1885. Serial No. 171,156. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND A. REICHARDT, a citizen of the United States, residing at Elizabeth, Union county, and State of New Jersey, have invented certain new and useful Improvements in Suture Appliances, of which the following is a specification.

This invention relates to dry suture appliances provided with a cementing compound, by which they may be attached to the skin on either side of cuts or wounds, and combined with means for drawing and holding together their adjacent edges; and it consists in making such appliances of a suitable fabric, coated with an antiseptic or other adhesive material, and having re-enforced non-adhesive edges provided with holes formed therein, or fastening devices attached thereto, through or over which the lacings or fasteners are passed. These non-adhesive edges greatly facilitate the application of such devices, and readily permit of subsequent adjustment of the lacings or fasteners, and the re-enforcement of these edges adds greatly to their strength.

I show a few forms in the accompanying drawings of improved suture appliances embodying my invention, which will readily suggest others, and to said drawings I will now refer, to more clearly describe the nature and application of my said invention.

Figure 1, Sheet 1, represents a jagged or compound cut on a forearm treated with my improved suture appliance. Fig. 2, Sheet 1, shows one form of the adhesive device. Fig. 3, Sheet 1, shows another form of the adhesive device. Figs. 4 to 6, Sheet 1, illustrate different ways of lacing or fastening the edges of the adhesive devices together; and Figs. 7, 8, and 9, Sheet 2, represent suture appliances constructed to surround the body or limb.

In Fig. 1, *a* represents a forearm injured by the compound cut *b b'*, to treat which by my method and suture appliance the adhesive devices *c c*, made preferably of a textile fabric faced on one side with an adhesive substance, antiseptic or otherwise, are attached to the skin, with their non-adhesive artificial suture-edges *c' c'* adjacent to the cut or injured part *b*. The cord, thread, or lacing *d* is then passed back and forth through holes formed in the opposed non-adhesive artificial suture-edges *c' c'*, or sewed by means of a needle through the edges

of the adhesive device *c c*, and the said edges are thereby drawn together to close the cut and bring its sides and edges in close and intimate contact, and the ends of the lacing *d* are then fastened. This is the general form and application of the suture appliance to cuts or wounds which are comparatively straight; but when a cut or wound partakes of the form shown—that is, has two or more branches—then in applying my improvements a piece of the adhesive device or plaster is shaped to fit between the branches *b* and *b'*, and attached to the skin by adhesion, as at *c'*, and other adhesive devices *c c c* are attached to the skin beyond the cut, with their connecting edges *c' c' c'* adjacent thereto, said edges, and the opposed edges of the piece *c'*, being connected together by a lacing, *d*, as shown. These adhesive devices I prefer to make sufficiently large to embrace and cover a considerable surface of the skin, to insure their retention in position as long as is necessary for the proper healing of the injured part.

In some cases it may be desirable to extend the suture appliances around the limb or body either by using one piece of adhesive material with its opposed non-adhesive artificial suture-edges secured together over the cut or wound, as shown at Fig. 9, or by using two pieces, as before described, and securing their rear edges, *c' c'*, Fig. 8, together by a lacing, *d'*, or other suitable means, thus surrounding the limb or body with the suture appliance; or, when the part injured is of considerable circumference, I then propose, as at Fig. 8, to connect the rear edges, *c' c'*, of the adhesive devices *c c* to an intermediate bandage or strip of fabric, *d''*, by sewing or otherwise.

The devices *c c* may be made of any suitable material faced with a cementing substance—as, for instance, adhesive plaster—and they may be made porous or perforated, as at *e e*, Fig. 2, for ventilating the skin. The connecting edges *c' c'*, constituting the artificial suture-edges, are made non-adhesive, to admit of the lacing or cord being readily passed through them, and to impart this feature to the dry suture appliance the non-adhesive edges may be formed by simply turning over a part of the plaster onto itself, through which double thickness the lacing may be sewed; or small eyelets *f f* may be secured therein for the re-

ception of the lacing or fastening attachment. This arrangement, while strengthening the artificial suture-edges, makes it non-adhesive, for the purpose before mentioned; or a wire
 5 or cord, *g*, Fig. 3, may be placed in the turned-over edge to further strengthen or re-enforce it, the lacing being passed through the plaster and around the cord or wire. In this view,
 10 Fig. 3, the plaster is shown with several slits formed in its rear end, and said slit parts may be spread out or separated, so as to embrace as large a surface of the flesh as possible or requisite, as shown in the application, Fig. 1.

In Fig. 4 the connecting artificial suture-
 15 edges of the two adhesive devices *c c* are shown with a lacing, *d*, placed through holes therein, ready to be applied to draw together or close a cut or wound, the lacing *d* being drawn as taut as desired after the adhesive devices *c c*
 20 have been attached in position on the skin, such arrangement saving considerable time in using the suture appliance; or short pieces of cord or tape *h h* may be permanently attached to the edges of the non-adhesive edges of the
 25 adhesive devices *c c*, and tied together when they are attached to the skin in position. Fig. 5 shows this form of the suture appliance with some of the cords or tapes *h h* tied together. This construction is very efficacious, as it ad-
 30 mits of the easy adjustment or further closing of parts of the cut or wound without disturbing other parts.

In Fig. 6 the adhesive devices *c c* are shown provided with elastic edges composed of strips
 35 of an elastic material, *m m*, attached to the non-adhesive edges by sewing or otherwise, the exposed edges of the elastic strips *m m* being connected together by means of the cord or lacing *d*, in the manner hereinbefore de-
 40 scribed.

I do not herein claim, broadly, an adhesive suture appliance provided with a non-adhe-

sive edge, in combination with a fastener, as the same will form the subject-matter of a separate application for Letters Patent.

I am aware that previous to the filing of my
 45 application for patent it has been proposed to form a suture appliance by means of two pieces of perforated plaster connected by a lacing; but my invention in the present case
 50 will be distinguished from such construction in that I re-enforce the adjacent edges of the adhesive sections, and also in that I combine in such re-enforced section a non-adhesive edge.

Having now described the nature of my in-
 55 vention and ascertained various ways in which it may be carried out, I do not confine myself to any particular form or construction of the improved suture appliance, as other modifica-
 60 tions of the same will be suggested by what I have described and be within the scope of my invention; but

What I claim, and desire to secure by Letters Patent, is—

1. In a suture appliance, adhesive devices
 65 formed of a suitable fabric coated on one side with adhesive substance and having a re-enforced edge or edges, in combination with a lacing or other fastener, substantially as set
 70 forth.

2. In a suture appliance, adhesive devices
 70 formed of a suitable fabric coated on one side with adhesive substance having a non-adhesive re-enforced edge or edges, in combination with a lacing or other fastener, substantially as
 75 set forth.

In testimony whereof I have hereunto set my hand, at New York, county and State of New York, this 8th day of July, 1885.

FERDINAND A. REICHARDT.

Witnesses:

R. H. HOFFMANN,
 H. D. WILLIAMS.