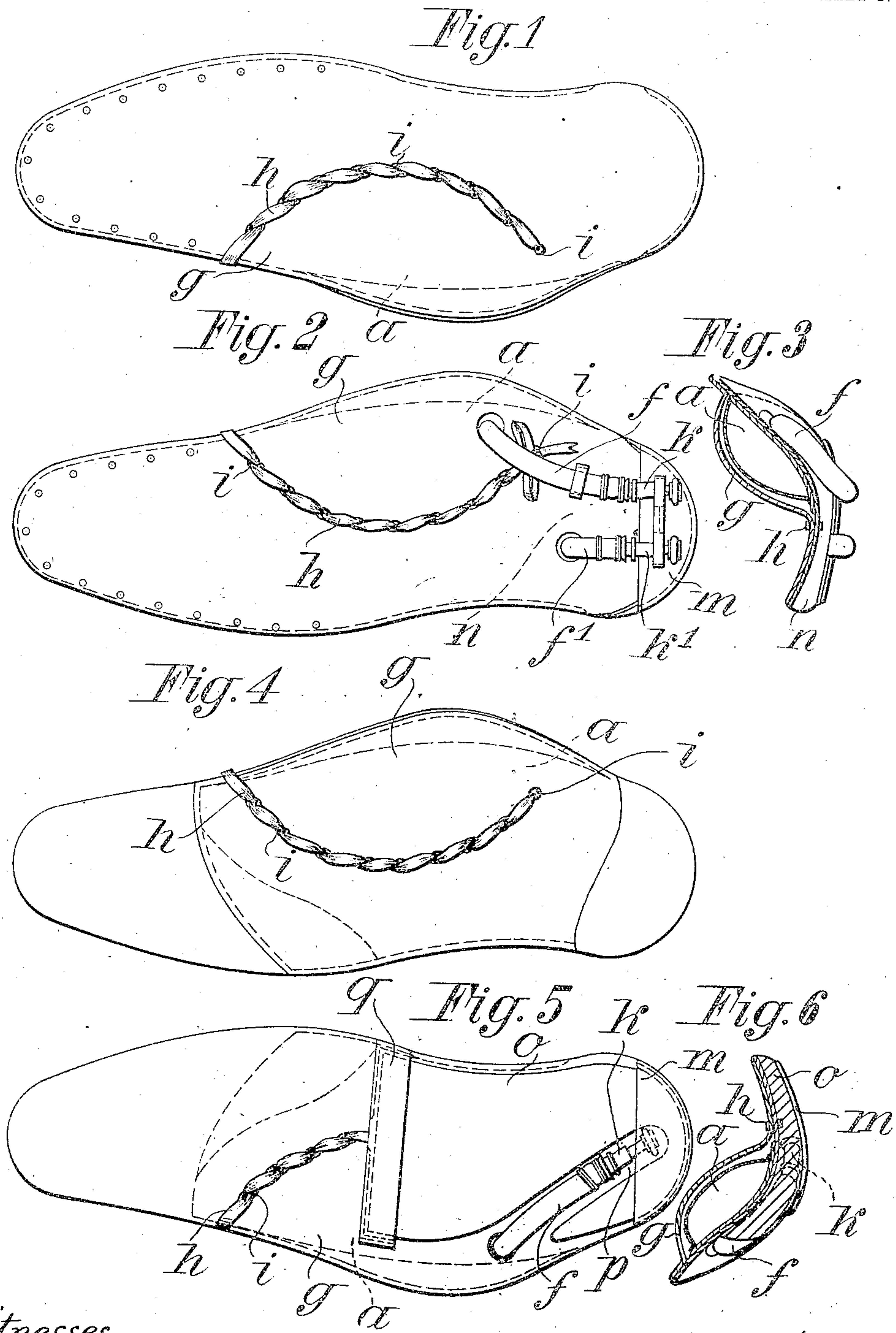


I. TAUBER.
 INSOLE OR SUPPORT FOR DEFORMED FEET.
 APPLICATION FILED NOV. 30, 1908.

940,564.

Patented Nov. 16, 1909.
 3 SHEETS—SHEET 1.



Witnesses
 Edwin L. Yewell
 Walter C. Paul.

Inventor
 Isidor Tauber
 By W. E. Schenck
 atty

I. TAUBER.
 INSOLE OR SUPPORT FOR DEFORMED FEET.
 APPLICATION FILED NOV. 30, 1908.

940,564.

Patented Nov. 16, 1909.

3 SHEETS—SHEET 2.

Fig. 7

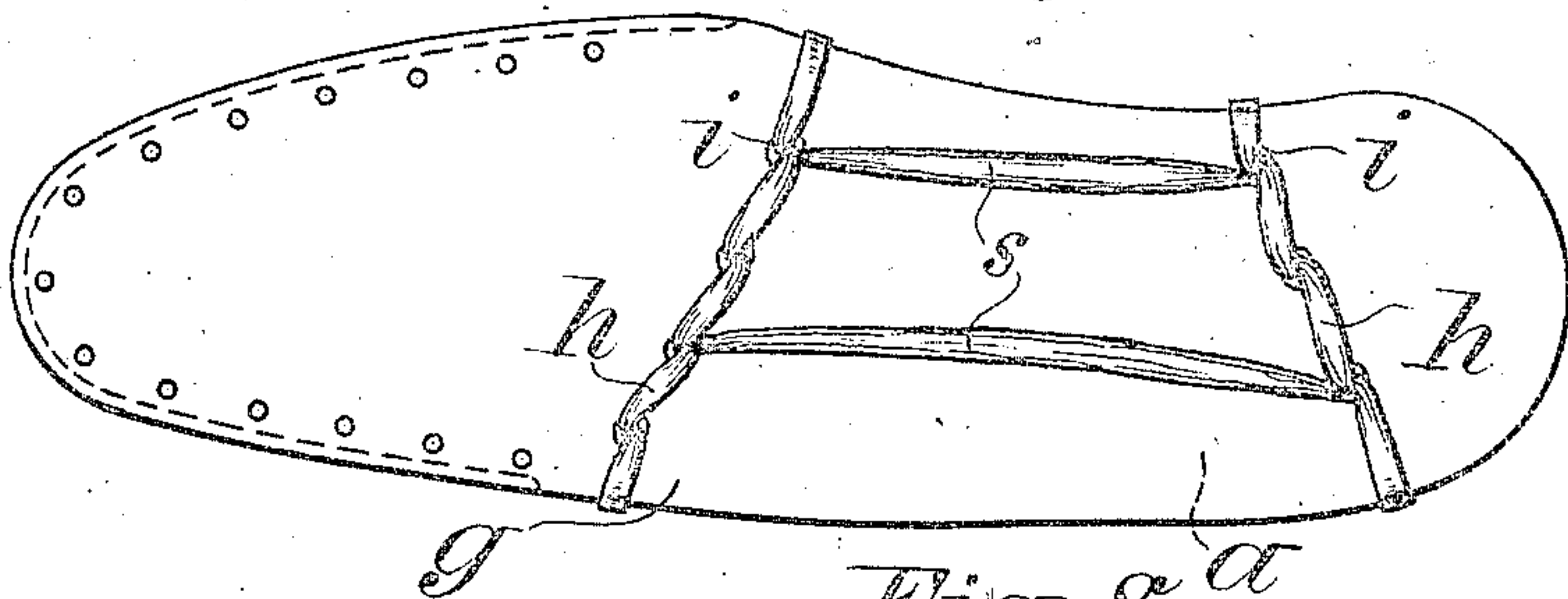


Fig. 8 a

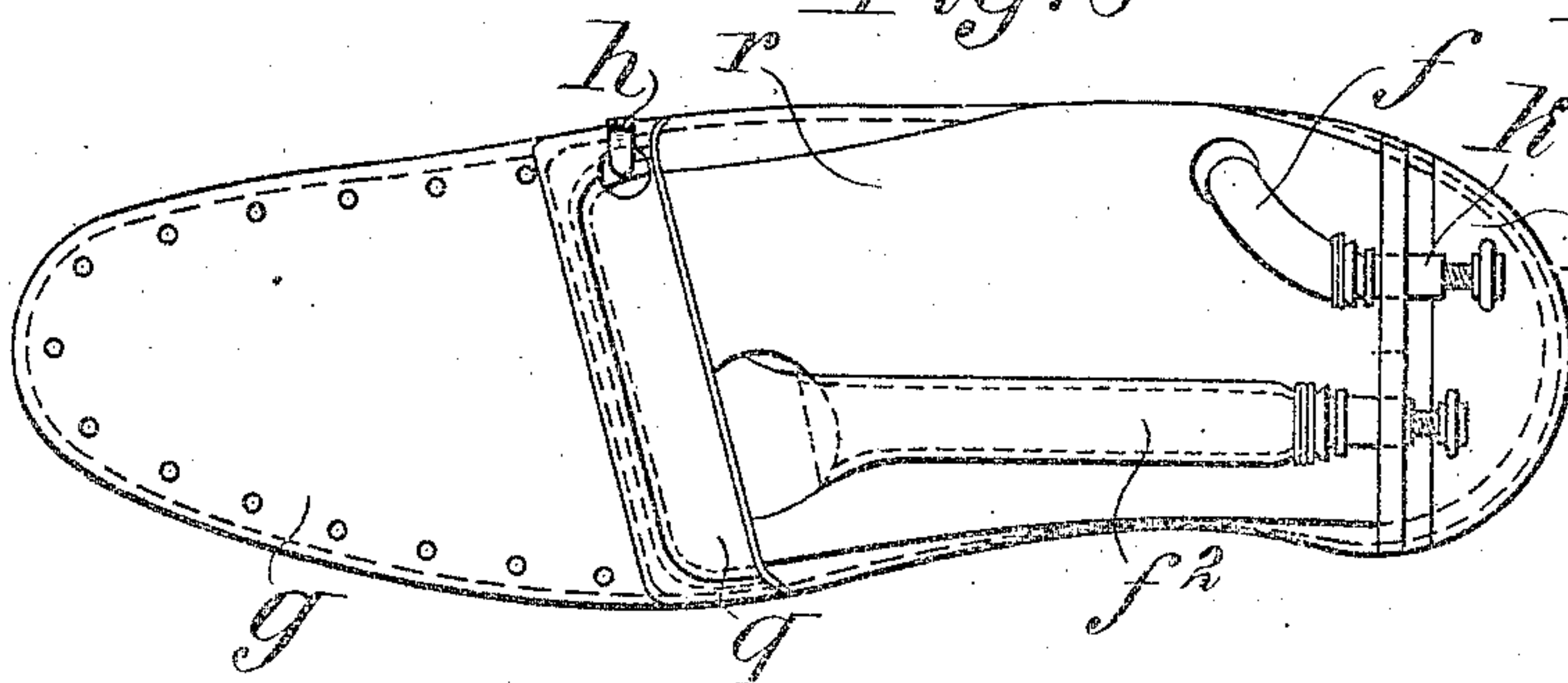


Fig. 9

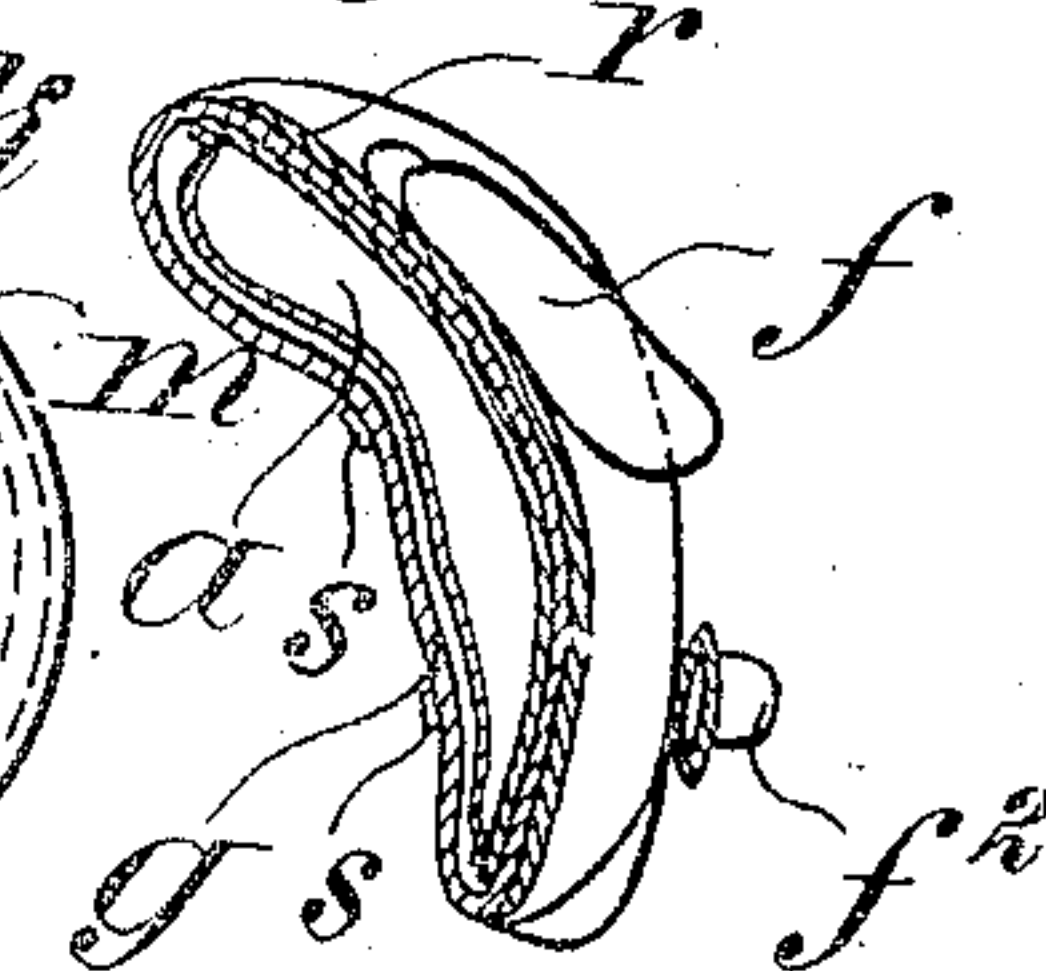


Fig. 10

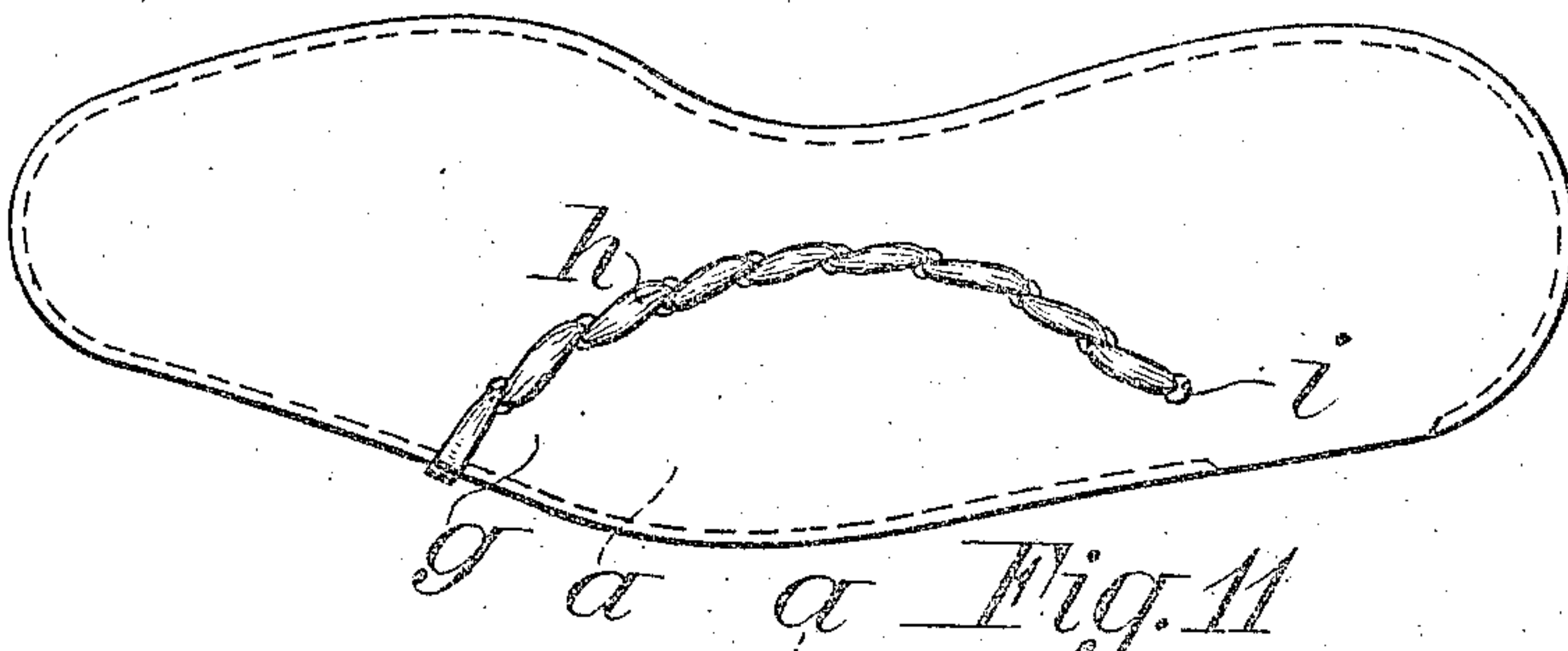


Fig. 11

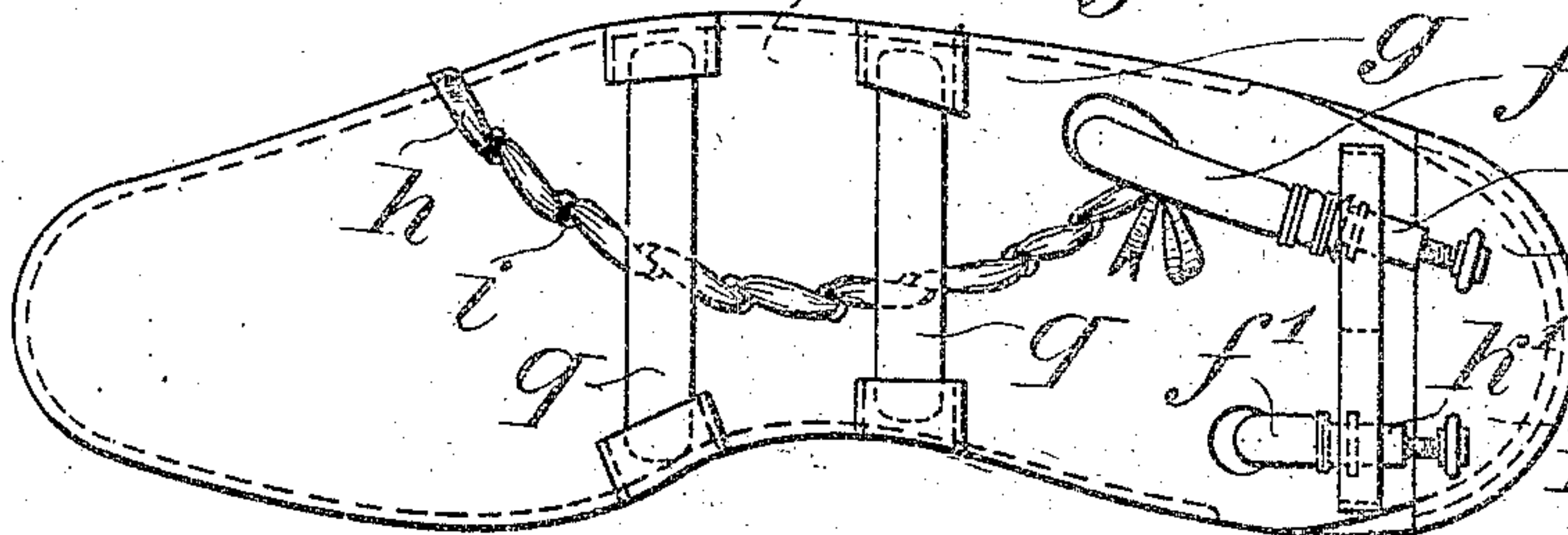
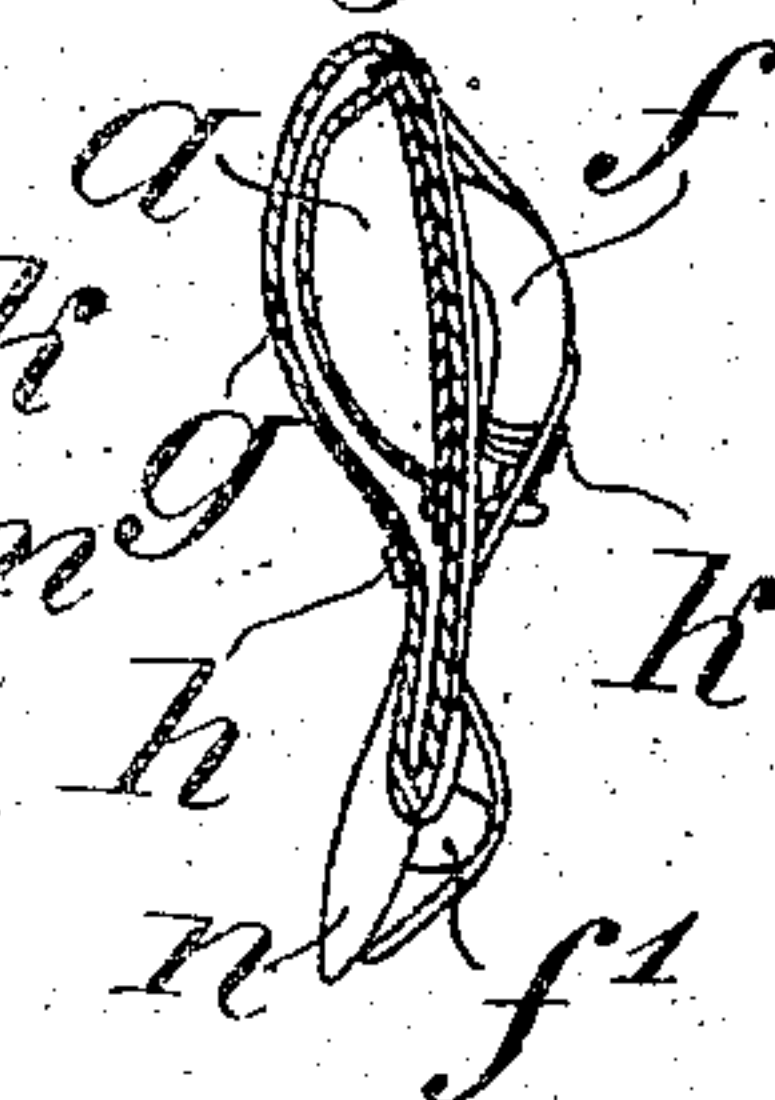


Fig. 12



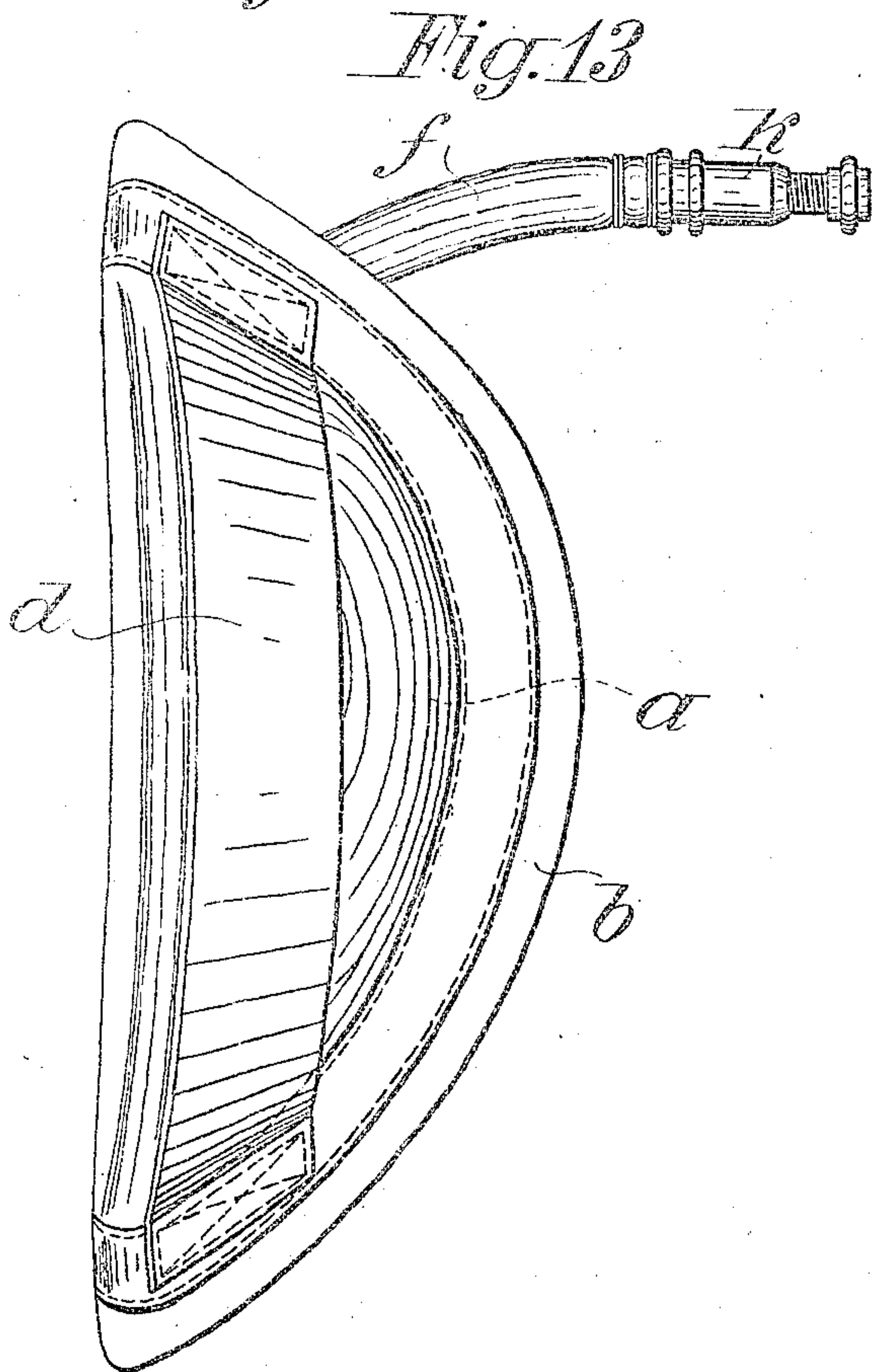
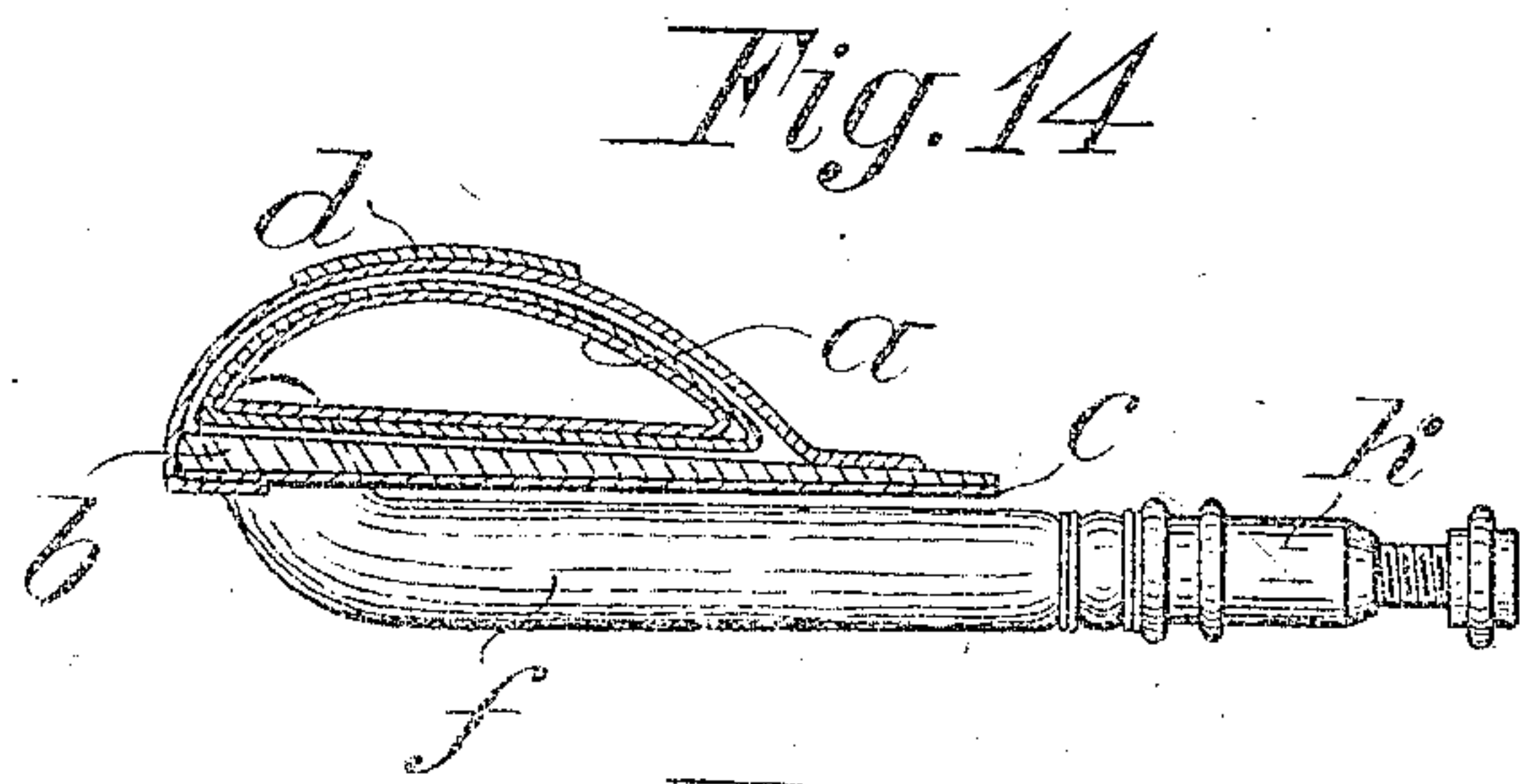
Witnesses
 Edwin L. Yewee
 Walter E. Paul.

Inventor
 Isidor Tauber
 By W. J. Schomborn
 atty.

E. TAUBER.
 INSOLE OR SUPPORT FOR DEFORMED FEET.
 APPLICATION FILED NOV. 30, 1908.

940,564.

Patented Nov. 16, 1909.
 3 SHEETS—SHEET 3.



Witnesses
 Edwin L. Jewell
 Walter E. Paul.

Inventor
 Eidor Tauber
 By *W. E. Johnson* *att.*

UNITED STATES PATENT OFFICE.

ISIDOR TAUBER, OF VIENNA, AUSTRIA-HUNGARY.

INSOLE OR SUPPORT FOR DEFORMED FEET.

940,564.

Specification of Letters Patent.

Patented Nov. 16, 1909.

Application filed November 30, 1908. Serial No. 465,314.

To all whom it may concern:

Be it known that I, ISIDOR TAUBER, subject of the Emperor of Austria-Hungary, residing at Vienna, Austria-Hungary, have
5 invented certain new and useful Improvements in Insoles or Supports for Deformed Feet, of which the following is a specification.

For curing flat, heel and club feet suitably shaped supports are in use which are placed and fixed in the boots or shoes and during the progress of the cure are taken out and exchanged for other supports. Apart from the necessity of using and fixing different supports there is also the drawback
15 that the supports at present in use offer a hard bearing surface to the foot and by their increased pressure cause pains.

The present invention has for its object
20 to obviate the above drawbacks and consists essentially in an insole or support which is provided at suitable places with inflatable cushions of proper form, whereby a local and elastic pressure may be exerted on the deformed part or parts of the foot, which pressure may be varied according to the progress of the cure.

In the accompanying drawings various kinds of supports constructed according to the present invention are shown.

Figures 1, 2 and 3 show in top-view, bottom-view and transverse section respectively one modification of a "flat-foot" support or insole; Figs. 4, 5 and 6 are like views of
35 a second modification of a flat foot support; Figs. 7, 8 and 9 show in top-view, bottom view and cross-section respectively a support for "heel-feet" and Figs. 10, 11 and 12 are similar views of "club-foot" supports; Figs. 13 and 14 show in plan view and sectional elevation respectively an inflatable
40 cushion.

The cushion *a* is preferably made of caoutchouc, india-rubber or the like covered
45 with cloth. The edge of the cloth projects all around and is used for attaching the cushion to a support *b*. The latter preferably consists of cork or leather and is glued on to a rigid plate *c* of suitable shape, made
50 of card-board, vulcanite, hard-rubber or the like, which prevents the cushion from expanding downward upon inflation. The upper surface of the cushion is spanned over either in the longitudinal or in the transverse direction by a band *d* which is slack

when the cushion is not inflated, but upon inflation becomes taut and prevents the inflation from being carried too far. The cushion is provided with an air tube *f* and is placed within a case *g* which has the form
60 of an insole preferably raised at the portion which receives the cushion. The fixing of the cushion at the proper place within the case *g* is done by means of a band or string *h* put through holes *i* provided for this purpose in the insole. The band or string *i*
65 can be easily removed for the purpose of exchanging the cushion. The inflation tube *f* is extended rearward and is furnished with a valve-piece *k*. It projects from the case *g*
70 through a suitable opening or hole. When the cushion has to be removed the tube *f* is pushed through the hole into the case *g* so that it lies between the two layers of the case or insole, whereupon the cushion together with the tube may be taken out
75 through the opening or slit at the heel-end of the insole. This slit-shaped opening is as a rule closed by a cap *m* fixed to one layer of the insole and pulled over the heel-end
80 of the other layer. If required there may be also a heel-cushion *n* (Figs. 2, 3 and 11, 12) provided with an independent tube *f'* and valve *k'* which is covered by the cap *m*.

The tube *f* and, if there is a heel-cushion, the tube *f'*, or in the case of an independently inflatable insole as in Figs. 8 and 9, the tube *f*² may be placed together with their valves either in a cavity of the heel, or in a trough-shaped groove *p* of a wedge plate
90 *o* fixed to the under side of the insole (Figs. 5, 6).

The wedge-shaped plate which also assists in giving the foot the proper position may be fixed to the under side of the insole by
95 means of the cap *m* and another cap band or loop *q* secured at the waist of the insole. The wedge-plate may thus be readily removed, either to be exchanged for another plate, or in order to enable the band or
100 string *h* to be taken out and the cushion *a* to be removed. For heel-feet two yielding cushions placed on both sides of the waist are used or one cushion extending over the whole width of the foot is employed which
105 is divided by two bands *s* spanned over into several cushions. To aid the action of the cushions the insole may be placed on a suitably shaped metallic support *r* (Figs. 8 and 9) which is fixed in the caps *m* and *q* and re-
110

tains the cushions in the proper positions. Suitable holes are provided in the support for the air-tubes.

For "club-foot" supports the elastic cushions are placed on the outer side of the waist, as shown in Figs. 10, 11 and 12.

Near the outer edge of the insole there are holes which form air-cells and allow of the access of the air to the foot, whereby a good ventilation is obtained.

Claim.

1. An insole or support for curing deformed feet, comprising a rigid plate, a yielding or flexible cover attached to the plate and forming a pocket therewith, exchangeable and locally attachable air-cushions inserted in said pocket which afford to the foot at the deformed places a yielding support and decrease the surface pressure, and means for confining said air cushions to limited sections of the insole, whereby the said cushions can be shaped exactly to the foot by inflation according as the cure progresses.

2. An insole or support as described comprising an air-cushion consisting of caoutchouc covered with cloth, a support for said air-cushion made of yielding material and attached to said cloth cover, a rigid plate carrying said yielding material which prevents the cushion from expanding or bulging downward, and a band spanned over the cushion and limiting the inflation upward.

3. An insole or support as described comprising two layers forming a pocket, a removable cushion retained in position between the two layers of the sole by means of a lacing band or string, put through the layers

of the insole and forming the space receiving the air-cushion.

4. An insole or support as described consisting of two layers forming a pocket and connected all around the edge except at the heel end of the insole, a removable air cushion inserted between the two layers and in the pocket, lacing passing through the layers and confining the air cushion to a limited section, the opening at the heel end through which the cushion is inserted or removed being adapted to be closed by a cap fixed to one layer and pulled over the end of the other layer.

5. An insole or support as described comprising two layers, an air-cushion provided with a tube and inserted between the layers, a wedge-shaped plate which assists in giving the proper position to the foot and serves for receiving the tube of the cushion and is removably attached to the under side of the insole.

6. An insole or support as described comprising two layers, an air cushion inserted between the two layers, a cap attached to the end of one of the layers, a wedge-shaped supporting plate for the cushion attached to the under side of the insole by means of the cap and a band fixed at the center of the insole.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ISIDOR TAUBER.

Witnesses:

JOSEF RUBARCH,
AUGUST FUGGER.