(No Model.)

G. V. HOUSE, Jr.

TRUSS.

No. 456,822. Patented July 28, 1891.

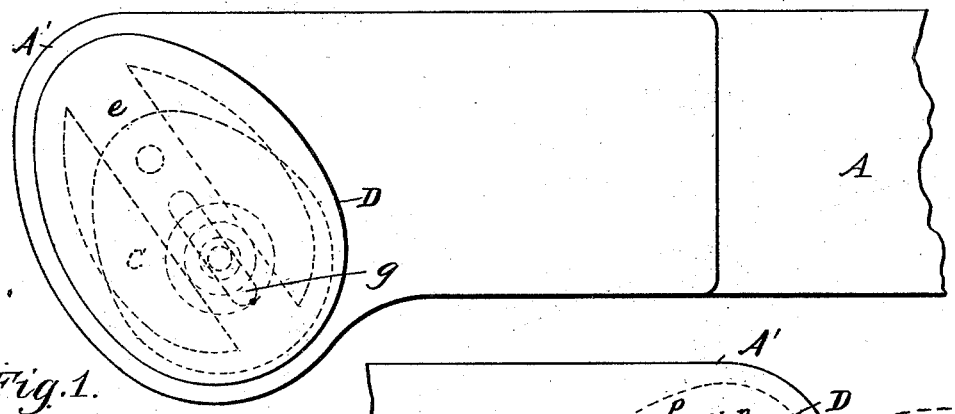

Fig. 1.

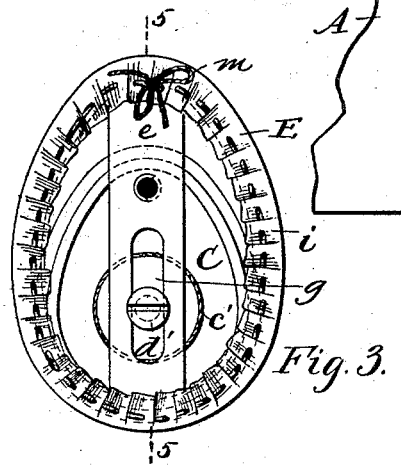

Fig. 3.

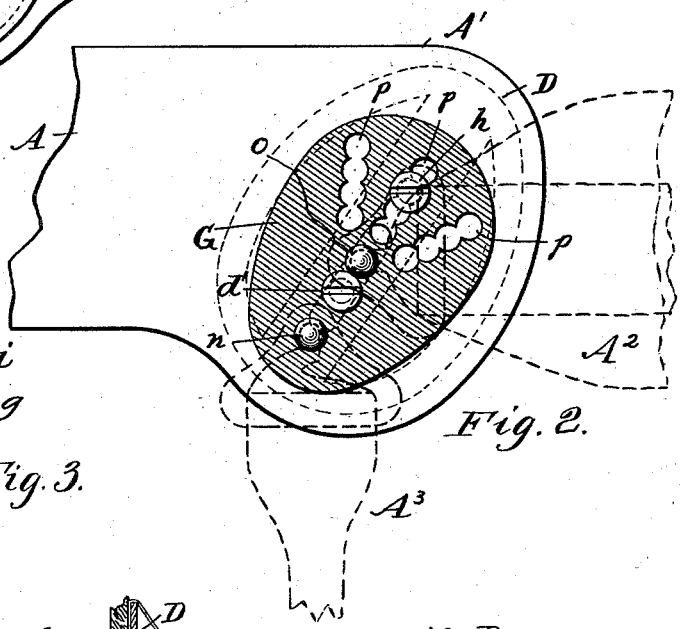

Fig. 2.

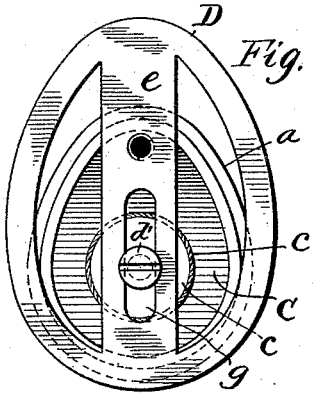

Fig. 4.

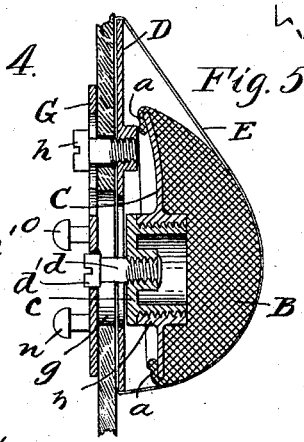

Fig. 5.

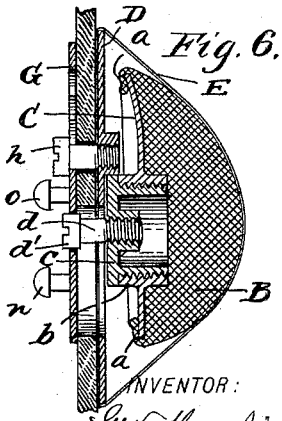

Fig. 6.

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GEORGE V. HOUSE, JR., OF NEW YORK, N. Y.

TRUSS.

SPECIFICATION forming part of Letters Patent No. 456,822, dated July 28, 1891.

Application filed December 23, 1890. Serial No. 375,562. (No model.)

To all whom it may concern:

Be it known that I, GEORGE V. HOUSE, Jr., of New York city, in the county and State of New York, have invented a new and useful Truss, of which the following is a full, clear, and exact description.

This invention relates to improvements in trusses, and has for its object to provide a truss with means for altering the size, form, and relative position of the pad, so as to adapt it for efficient service in all varieties of hernia.

To this end my invention consists in the construction and combination of parts, as is hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side view of one end portion of the truss-band broken and an attached pad embodying the improvements, parts of the latter being indicated in dotted lines. Fig. 2 represents the opposite side of the truss end, the improved pad thereon partly in dotted lines, other ends of the truss-band being shown in dotted lines removably connected with the pad. Fig. 3 represents the inner face of the improved pad detached from the truss-band. Fig. 4 represents the pad viewed from the same side shown in Fig. 3 with the outer envelope removed. Fig. 5 is a longitudinal section of the truss-pad on the line 5 5 in Fig. 3; and Fig. 6 is a longitudinal section through the same line as Fig. 5, showing the parts differently adjusted.

The truss-band A is made of any suitable material, preferably of fibrous webbing, the end portion A′ whereon the pad is located being properly shaped to receive it, as represented in Figs. 1 and 2. The pad proper of the truss is composed of a substantially ovate bulb B, flattened upon one side. Said piece B is preferably formed of slightly-elastic material—such as vulcanized gum—and has a thin peripheral elastic flange *a*, formed integrally, which projects inwardly, so as to afford a retaining-flap, that when stretched over the edge of an oval carrier-plate C will closely embrace the same and clamp the pad-bulb thereon. There is an integral nut *b* formed on the carrier-plate C, which is located opposite the point of highest projection on the bulb B, its internally-threaded cylindrical wall being designed to receive an externally-threaded hollow hub *c*, that has an axially central shank *d* projected from its outer face, which shank has a kerfed head *d′* formed on its free end, and is rigidly secured to the boss, thus affording means to rotate the latter when it is similarly moved. The provision of the diametrically-enlarged hub *c* and integral nut *b* is necessary to afford a proper support for the bulb B when it is projected from or is moved longitudinally upon a base-plate, as will be explained.

A base-plate D is provided for the composite pad, which is made of metal, preferably, and of substantially the same peripheral form as the bulb B, but of increased size. There is a center bar *e*, produced on the base-plate D by cutting away material, as shown in Fig. 4, thus exposing the milled edge *c′* of the hub *c* at opposite points for its manipulation, if necessary, to rotate the hub in its nut when the pad is disconnected from the truss-band. The bar *e* is longitudinally slotted a proper distance at *g* to receive the shank *d* and allow it to slide therein. Between the end of the slot *g* and the apex of the ovate plate D a threaded hole is formed to receive a binding-screw *h*, which will be further mentioned.

The outer envelope E of the truss-pad is preferably made of soft pliable skin, such as kid leather, which is cut into form and stretched upon the bulb B and over the edge of the base-plate D, the margin *i* being perforated at intervals for the introduction of a preferably elastic constriction-cord *m*, that is tightly drawn and tied when the parts are assembled; or other means may be employed to secure the envelope in place. The portion A′ of the truss-band A is slotted and perforated to correspond with the slot *g* and hole for the binding-screw *h*. There is a cap-plate G, of ovate contour and smaller dimensions than the base-plate D, placed upon the exterior surface of the truss-fabric nearly opposite the carrier-plate of the bulb B. The cap-plate G is perforated to receive the head *d′* of the shank *d*, the head serving to retain the cap-plate from lateral displacement. Two similar studs *n o* are secured to and project

from the exterior surface of the cap-plate G at proper points on each side of the shank-head d', aligning with it and also with the longitudinal center of the plate whereon they are affixed. The studs n o afford means for the removable attachment of the truss ends A^2 A^3 with the end A′, whereon the pad is located, these truss ends being provided with suitable latch-plates of the usual form having open hooks formed on them to permit such a connection. The end portion connected to the stud n is the terminal of a supplementary band provided for the truss, which band A^3 passes between the lower limbs of the wearer and is hooked fast to the lower stud n, the main truss-band end A^2 being similarly secured to the upper stud o. Three rows of holes p, closely located in radial lines, of which the shank-head d' is the center, are formed in the cap-plate G between the stud o and the edge of the plate, which holes are adapted to receive the body of the binding-screw h.

If it is desired to use the pad for a rupture which requires an elongated ovate form to be given to it, the bulb B is adjusted toward the lower end of the base-plate D by sliding the cap-plate G in that direction and then inserting the binding-screw h through an appropriate hole p into the threaded hole provided for its reception in the base-plate, a proper adjustment of said screw serving to bind the parts together. Any proper degree of outward projection may be given to the bulb B by a rotation of the head d', a contrary movement of the shank d reducing the projection of the pad in an obvious manner, which projection may be effected by the use of a screw-driver engaging the kerfed head d' of the shank d, secured in position by the cap-plate G, without requiring a removal of parts or displacement of the truss from the body of the wearer. If it is desired to afford a greater pressure of the pad on either side of a center line, longitudinally considered with regard to its cap-plate G, said plate is moved after the binding-screw h has been displaced, so as to align a hole in either of the side rows of holes p with the threaded perforation made in the base-plate for the screw h. An insertion of the latter will then clamp the parts properly adjusted to afford pressure at the point desired when the truss is in place.

When the improved pad is used on a truss for the reduction of an umbilical rupture, the bulb B is moved to give it a central position, as shown in Fig. 6, the shank d being then adjusted to project said bulb as prominently as may be necessary.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A truss having a plano-ovate pad-bulb, of nearly rigid material, which is removably secured upon a thin carrier-plate by an elastic flange on the edge of the bulb, said plate being held longitudinally movable on a base-plate securable thereto and further adapted for a graduated projection therefrom within a thin envelope that has its edges attached to the base-plate adjustably, substantially as described.

2. A truss having a pad-bulb rendered laterally and longitudinally adjustable by the provision of a pivotal shank, which enters a perforation in a carrier-plate after passing through a slotted base-plate and through the truss-band, and by the securing engagement of a binding-screw that is inserted in a threaded hole in the base-plate passing through one of a series of holes arranged in rows radiating from the pivot-shank in a cap-plate and in the truss-band between the cap-plate and base-plate, substantially as set forth.

3. A truss having an elongated band and a plano-ovate bulb held removably on a carrier-plate of thin metal, which is provided with an integral nut of considerable proportionate diameter that is engaged by a threaded hub from which is projected an axial shank that extends through a longitudinal slot in a base-plate and the truss-band and into a perforation in a cap-plate secured oppositely on the truss-band, said shank having its head slotted to receive a screw-driver and by its rotation project the bulb within a thin envelope that incases it and is adjustably secured on the ovate edge of the base-plate, substantially as set forth.

GEORGE V. HOUSE, JR.

Witnesses:
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EDGAR TATE.