

(No Model.)

A. J. LYTLE.

TRUSS.

No. 316,903.

Patented Apr. 28, 1885.

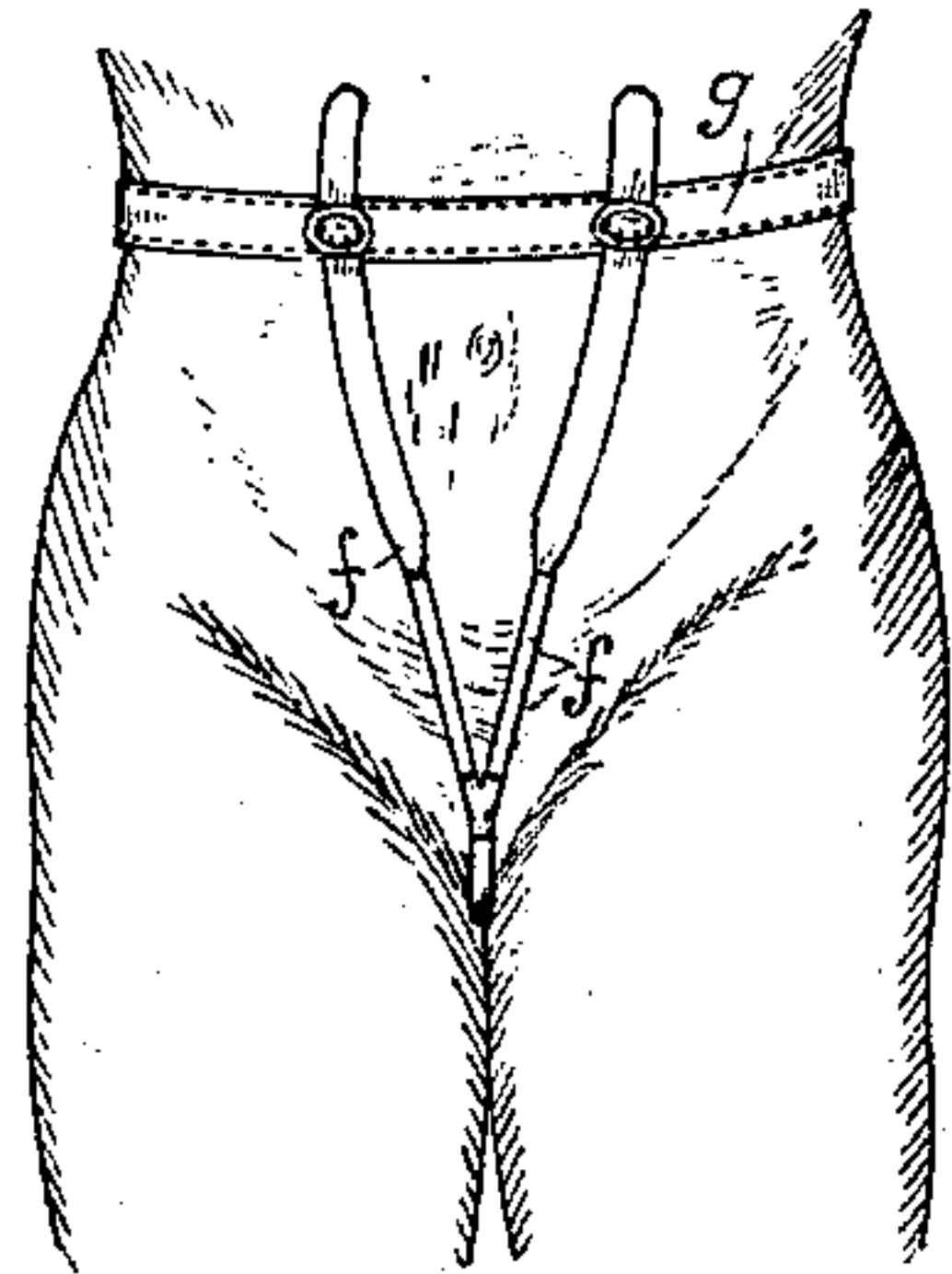


Fig. 1.

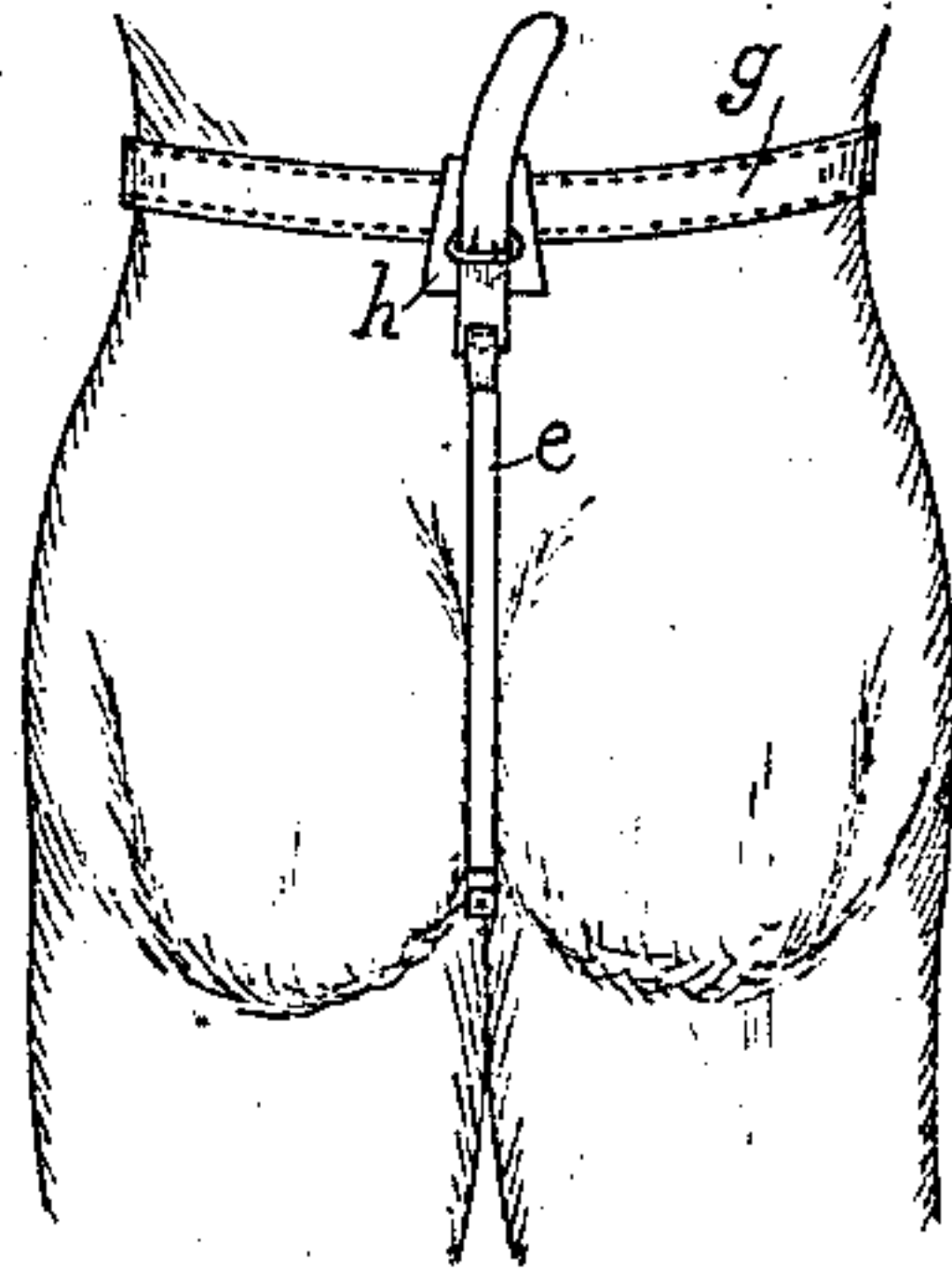


Fig. 2.

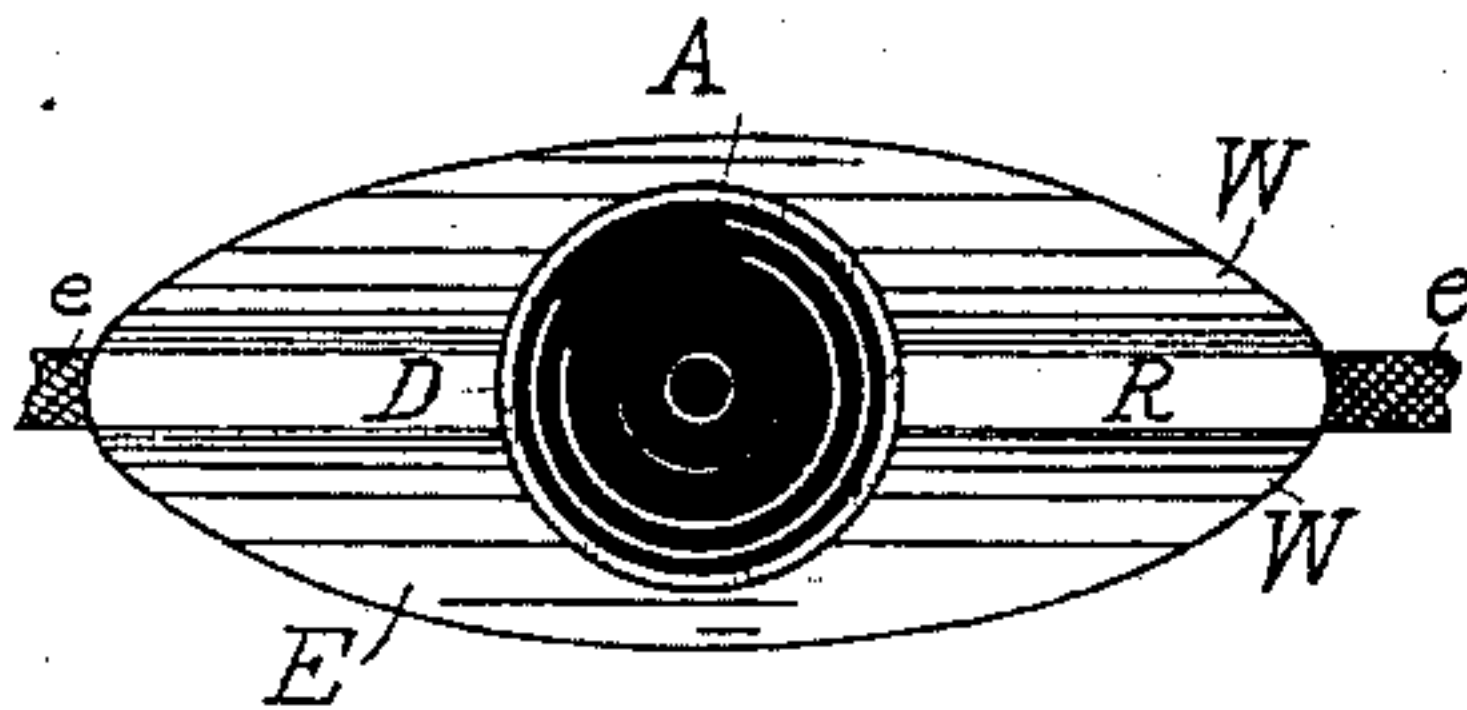


Fig. 6.

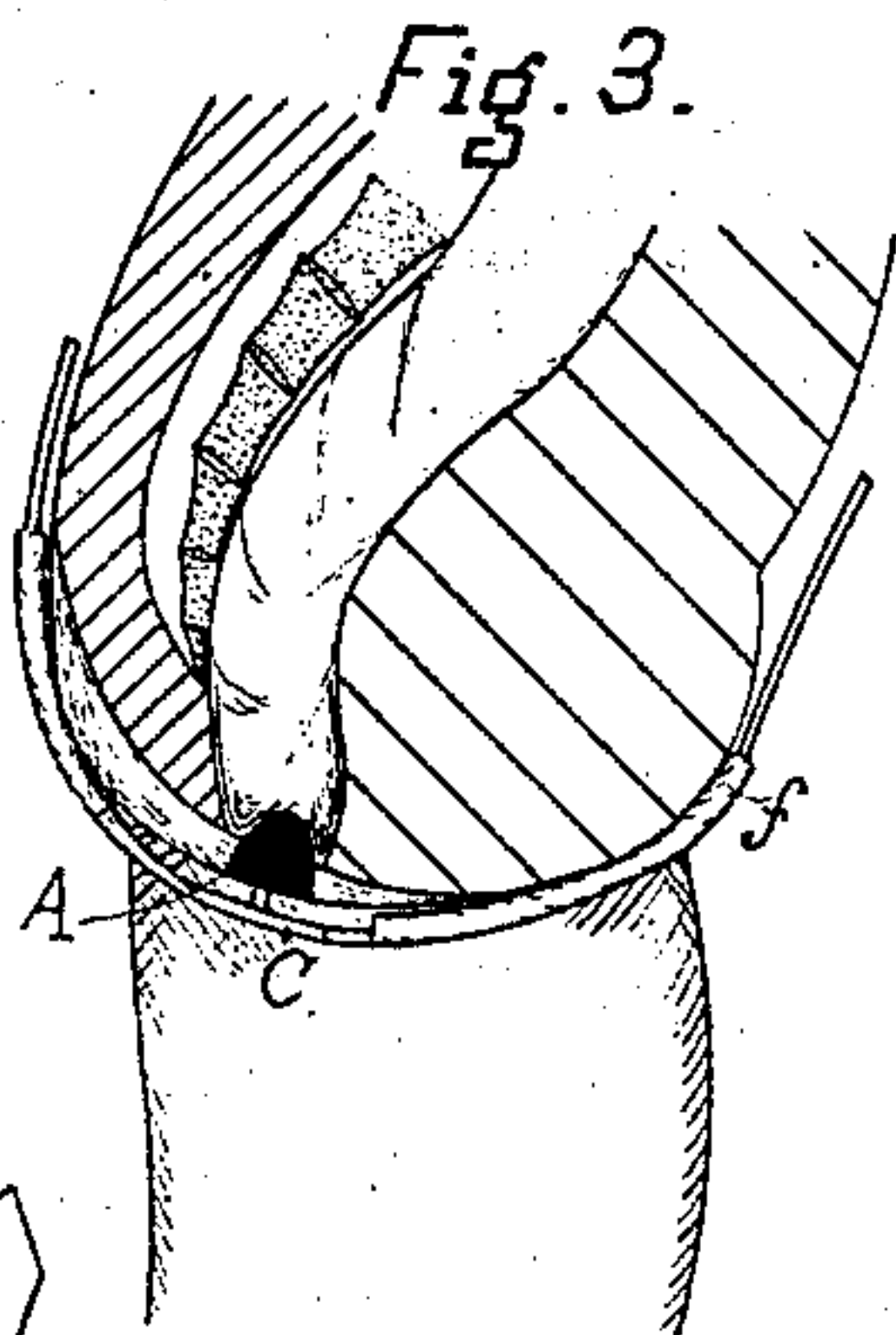


Fig. 3.

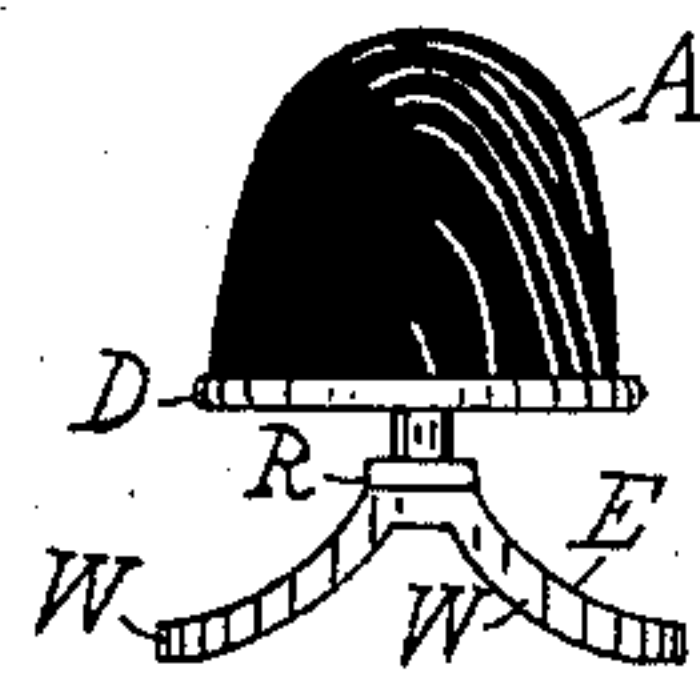


Fig. 7.

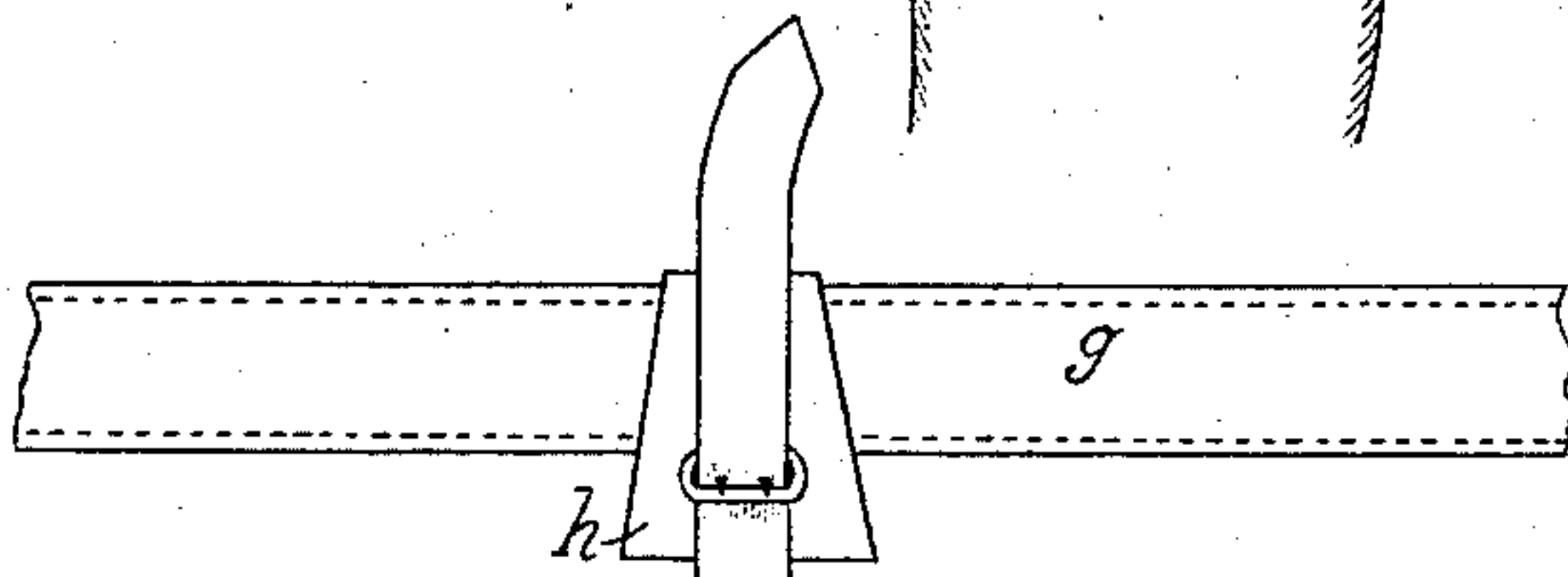


Fig. 4.

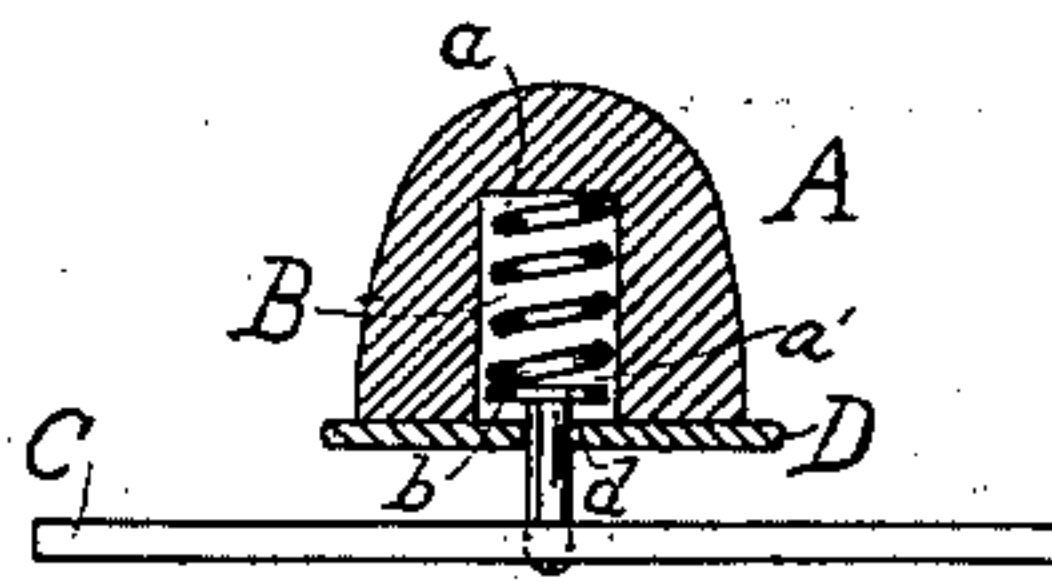
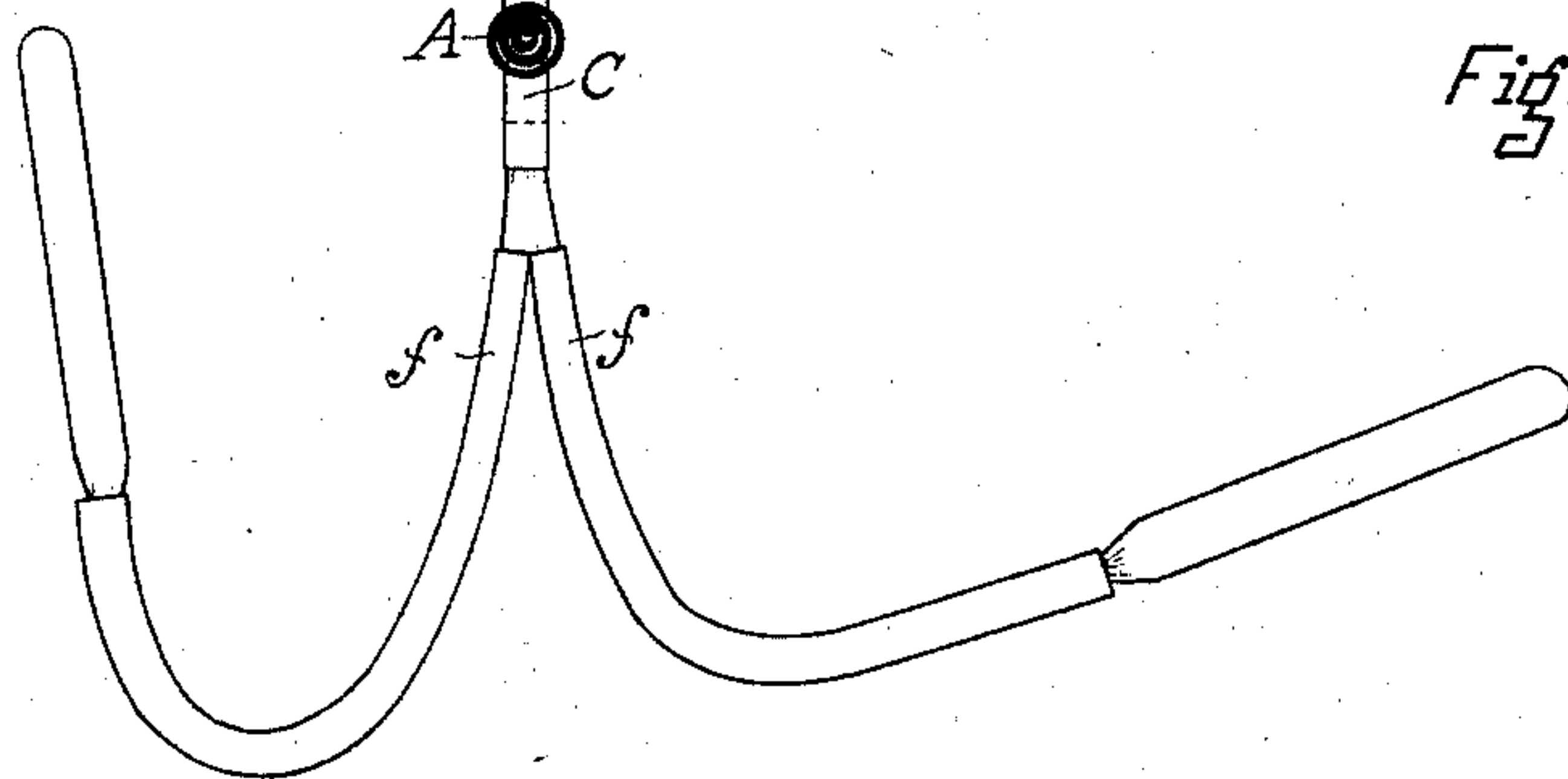


Fig. 5.



ATTEST.

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UNITED STATES PATENT OFFICE.

ANDREW JACKSON LYTTLE, OF HILLSBOROUGH, OHIO.

TRUSS.

SPECIFICATION forming part of Letters Patent No. 316,903, dated April 28, 1885.

Application filed August 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, ANDREW JACKSON LYTTLE, a resident of Hillsborough, in Highland county and State of Ohio, have invented certain new and useful Improvements in Trusses, of which the following is a specification.

The object of my invention is to produce a truss which shall retain the intestine in place, in a novel, cheap, and efficacious manner.

The several features of my invention and the various advantages resulting from the employment of said features, together or otherwise, will be apparent from the following description.

For the purposes of illustrating my invention, I shall now proceed to show it as employed to a prolapsus ani.

In the accompany drawings, making part of this specification, Figure 1 represents a front view of a truss illustrating my invention applied to a subject. Fig. 2 represents a rear view of said truss applied to said subject. Fig. 3 represents a view in section of an anus and its intestine, and the said truss in position and supporting said anus. Fig. 4 represents portions of the truss. Fig. 5 is a vertical central section of the bulb or pad which is applied directly to the anus, and showing mechanism for supporting the pad. Fig. 6 is a top view of a supplemental pad, and illustrating how it may be used in connection with the bulb or pad shown in Fig. 5; and Fig. 7 is an end elevation of the device shown in Fig. 6.

A indicates the bulb or pad. This bulb is preferably formed as follows, viz: It is somewhat convex, dome-shaped, or convexly rounded in shape on top. The portion, if any, which is below this top may be of any suitable shape; usually its walls are approximately vertical. The bulb or pad A rests upon a spring, and this spring B is preferably located within it. When the latter is the case, one end, *a*, of the spring, which is preferably a spiral one, rests against the bulb or pad, or an equivalent connection of the latter, and the other end *a'* of the spring rests upon the upper portion, *b*, of a support C. The connection between the portion *b* and the main part of support C is preferably made by a shank *m*. This upper portion, *b*, is preferably somewhat broader than that portion of support C

which plays in the bulb or pad. Below this portion *b* either the bulb itself is contracted in a flange, *d*, or instead of the flange a bushing, collar, or suitable projection or projections connected to the bulb are present and prevent the bulb from slipping off the end portion *a* of the support. The orifice in the annular flange *d*, or its equivalent, is made large enough to allow the bulb or pad A to have oscillation, as if the portion *a* were a pivot-bearing of a universal joint. The support C is firmly secured to the usual string or strap, *e*, of the truss. This string is in turn connected to the usual branch straps or parts, *f f*, which lie upon the abdomen, and are in turn buckled, buttoned, or otherwise secured to the usual belt, *g*, which is likewise suitably secured in position around the waist by buckling, buttoning, &c. The string or strap *e* is connected at rear to the usual rear strap *h*, in turn suitably connected to the belt *g*. A portion of said straps *e* and *f f* are preferably made elastic. The free end of the bulb or pad A is placed against the lower end or bottom of the anus, and when in position will operate to press the intestine up and back. The pad also operates to keep up and press back the terminal border of the anus, and also fill the central or open portion of the anus, and thus also operate to keep back the anal canal or intestine.

As the bulb or pad A rests on a spring, the pressure of said pad is gentle and uniform, and no rude shock is communicated to the anus and canal in walking, working, or, more particularly, in riding or driving. The jolt communicated to the rider by the horse, or to a person in a vehicle, by vertical thrusts and movements of the latter, will be equalized and gently communicated to the anus and its intestine in such a manner as to break the force of the rough and sudden impact of such jolts and thrusts, and they are thereby deprived of their dangerous and harmful influences and results.

The capacity of the top portion of the bulb or pad A to oscillate enables it to accommodate any rolling movement or any side movement in a direction transverse to the length of support C, which may be imparted to the support C, to the anus or its intestine, either by the action of the person using said truss, or

through the agency of extraneous things, as, for example, of the horse, vehicle, or other things upon which the user may be seated. Thus all rude shocks to the anus and its intestine are prevented, and at the same time the anus and its canal are gently and firmly held up and back in a position where they relieve the person afflicted with prolapsus ani from pain and discomfort, and also keep the parts in position where they can more readily heal and acquire strength. The application of the afore-described portions of my invention is not limited to prolapsus ani, but extends to hernia, and are profitably employed for the relief and cure of various descriptions of rupture, and when so applied the operation of my improved pad or bulb and the mechanism supporting it will be similar to that already described in its application to prolapsus ani, and be attended with similar advantageous results.

It may be here remarked that the particular means for, and mode of, holding the bulb or pad A with its spring supporting mechanism in position, either in prolapsus ani or in hernia, &c., is to be varied as desired from the system of straps and belts shown in the drawings, and these straps and belts form no part of my invention.

In regard to certain details of invention, I would say that while the various parts of my invention thus far described may be made of any suitable material, the bulb or pad A is preferably made of celluloid, and the flange *d* preferably forms part of a metal plate, D, to which the celluloid bulb is secured by screws or other suitable fastenings. In cases of prolapsus ani, whenever desirable, a supplemental pad, E, also of my invention, is to be used. This pad may be made of any suitable material, but is preferably made of celluloid. It is shaped substantially as shown in Figs. 6 and 7, and is to be connected to the rest of the truss in any suitable manner. For instance, it may be connected to the strap or string *e*, the latter being continuous, or it may form the connecting link between distinct front and rear portions of said strap *e*. In the latter event the supplemental pad will carry the pad or bulb A, and the latter may be directly secured thereto; also, one end of the front part of the strap *e* will be suitably connected to one end portion of the supplemental pad, and one end of the rear portion of strap *e* will be con-

nected to the other end portion of the supplemental pad. Where the strap *e* is not thus divided the support C will be usually connected to the said strap. The connection between this supplemental pad E and the strap *e*, whether divided or otherwise, is preferably so made that this supplemental pad E can be readily removed and another of a larger or smaller size substituted therefor. The supplemental pad has the wing portion W, and the ridge R, which latter is adapted to fit up into the groove in which the anus lies, and the wings W lie upon and fit the sides of the groove. This supplemental pad steadies the bulb or pad A and aids in preventing the strap *e*, or the latter's equivalent, from being shifted, and by shifting either entirely displacing the bulb or pad A or causing it to assume an improper direction with reference to the anus and its canal. When the spring is suitably made the support C may be omitted and the spring form the connection between the bulb or pad A and the strap *e*, or the supplemental pad, but I prefer, for obvious reasons, to usually employ the support C as the connection between the bulb or pad A and the strap *e* or supplemental pad. While the various features of my invention are preferably employed together, one or more of them may be employed without the remainder, and one or more of them may, so far as applicable, be applied to or combined with trusses of kinds other than that herein specifically set forth.

What I claim as new and of my invention, and desire to secure by Letters Patent, is—

1. The supplemental pad E, provided with wings W and ridge R, in combination with a pad directly supporting the anus and its intestine.
2. The combination of the supplemental pad E, provided with wings W and ridge R, and the bulb or pad A, adapted to enter the anus, said pad being provided with an interior spring, B, and connected to an appropriate support for retaining it in position, the spring B allowing a slight vibratory movement to be imparted to the pad, under the impulse of the movements of the body of the wearer, substantially as and for the purposes specified.

ANDREW JACKSON LYTLE.

Witnesses:

J. WM. STREHLI,
WALTER CHAMBERLIN.