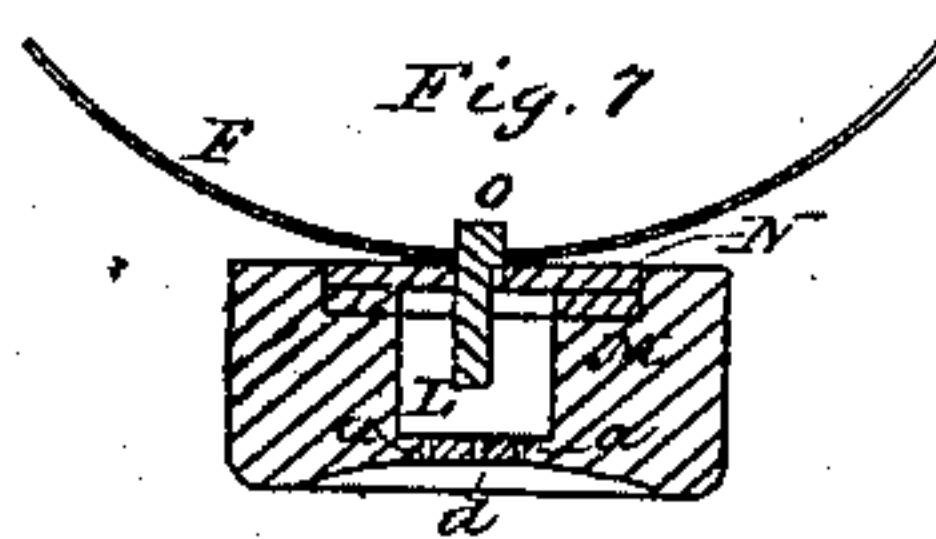
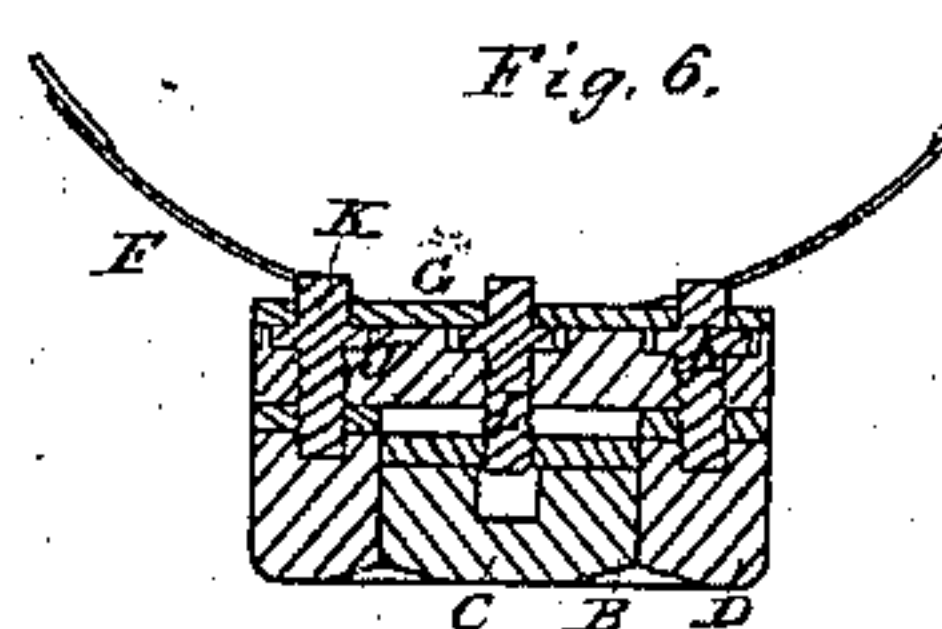
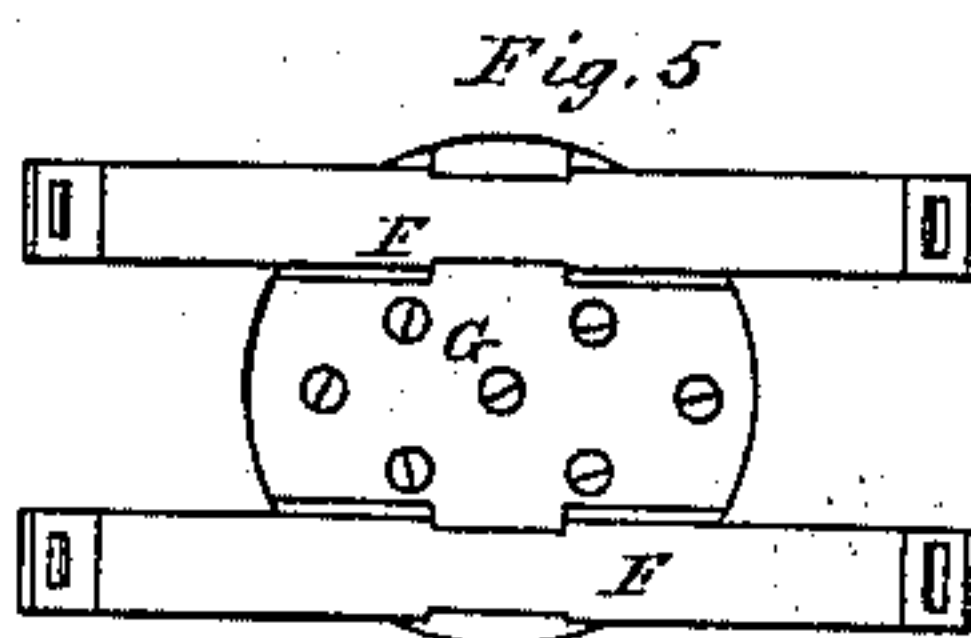
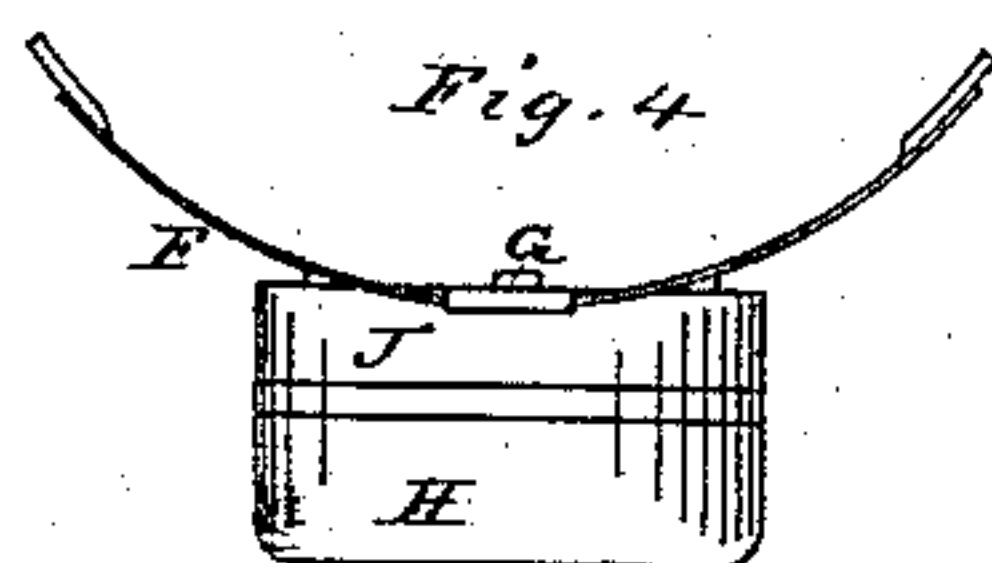
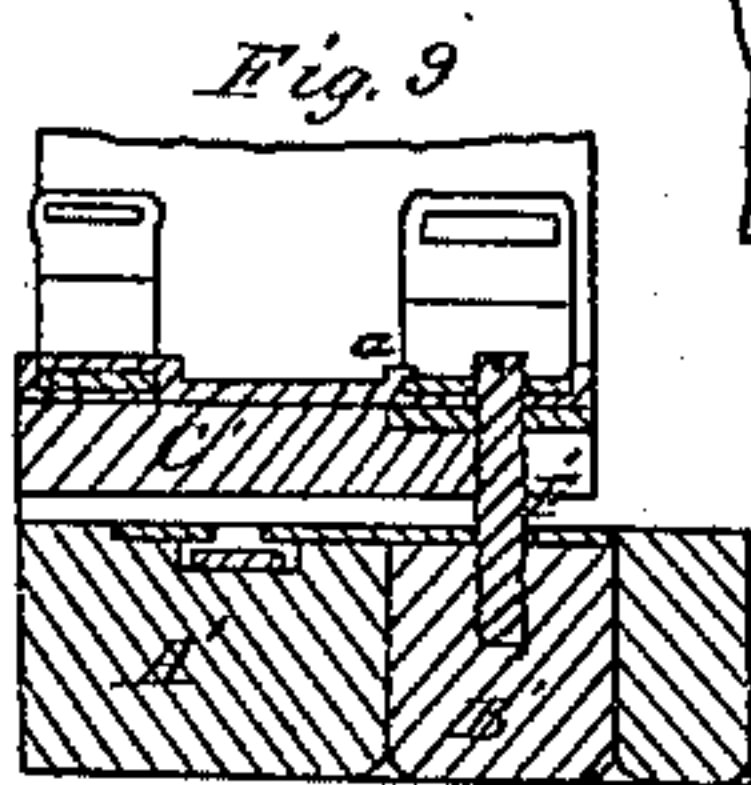
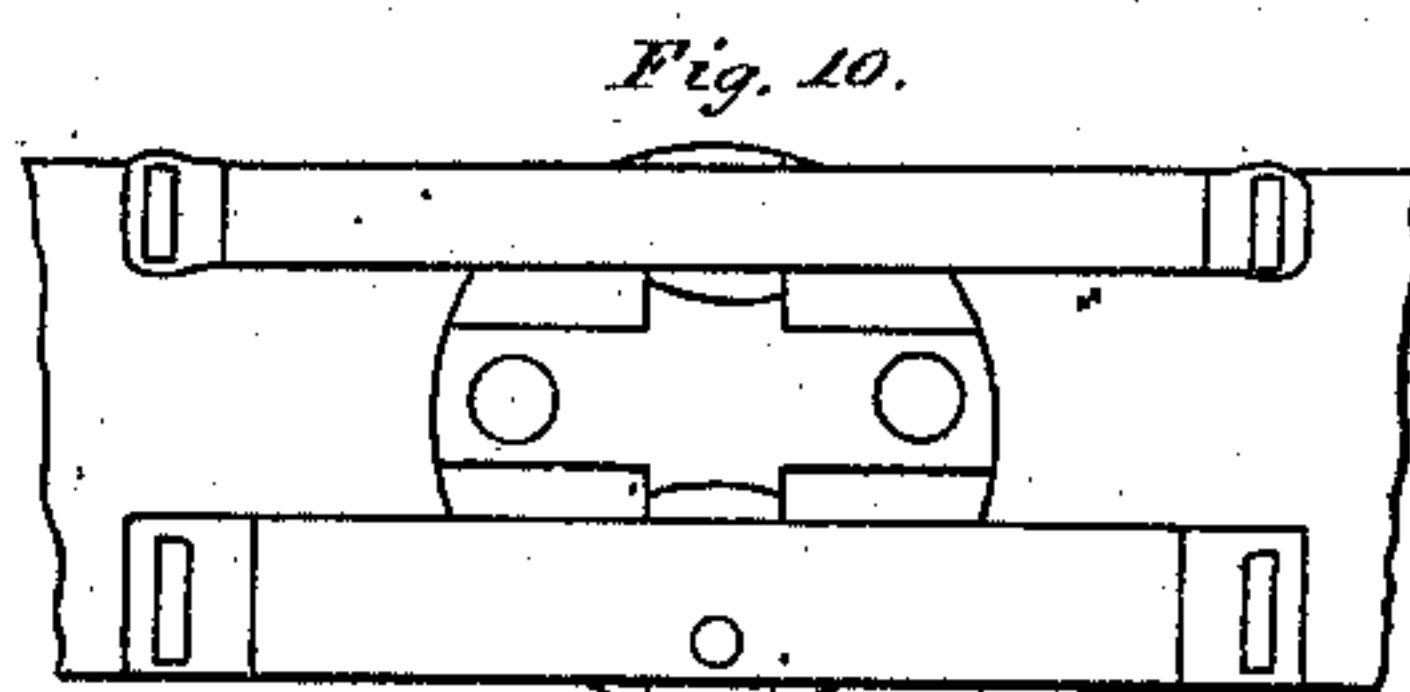
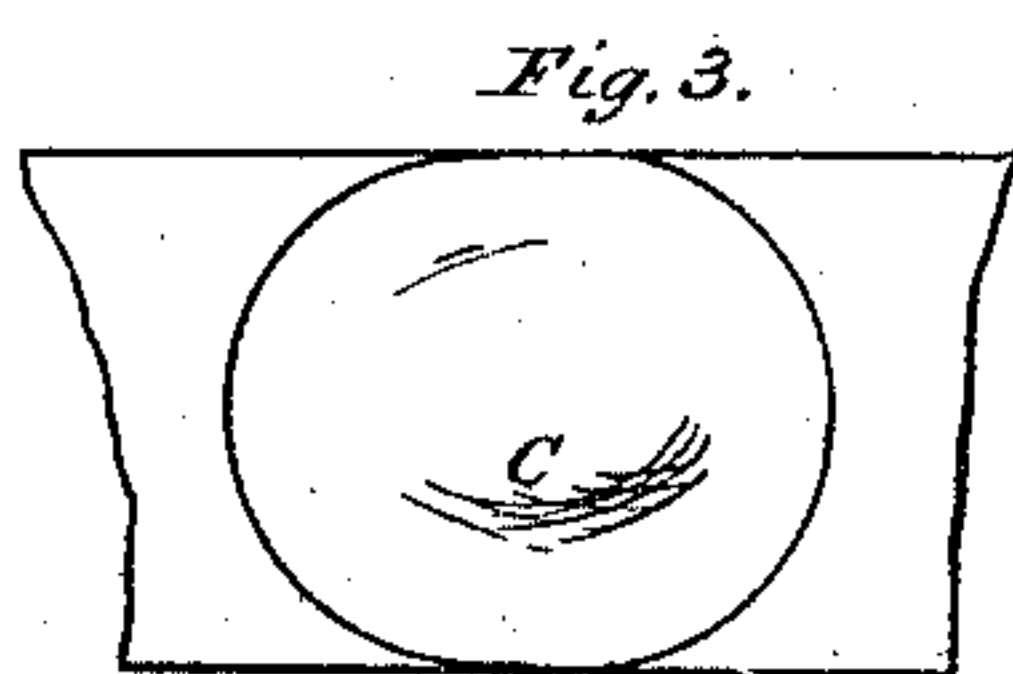
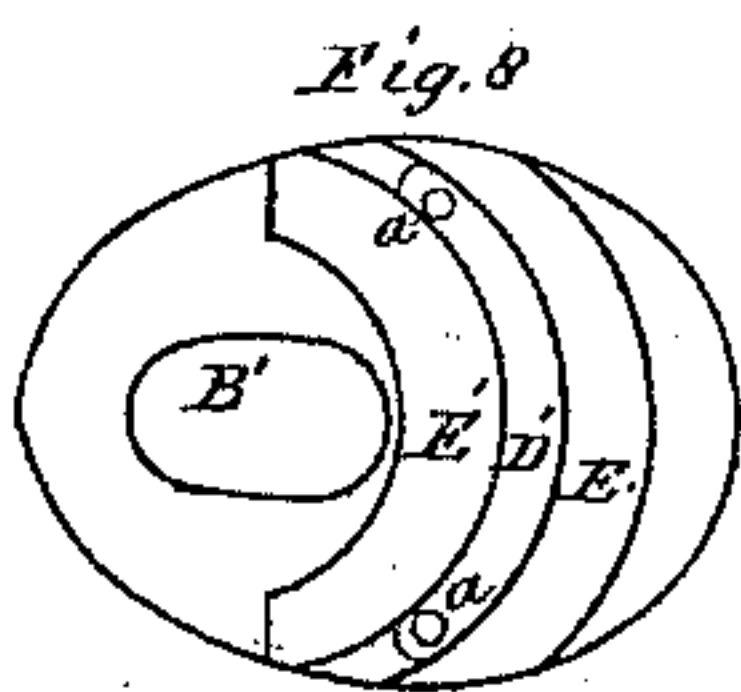
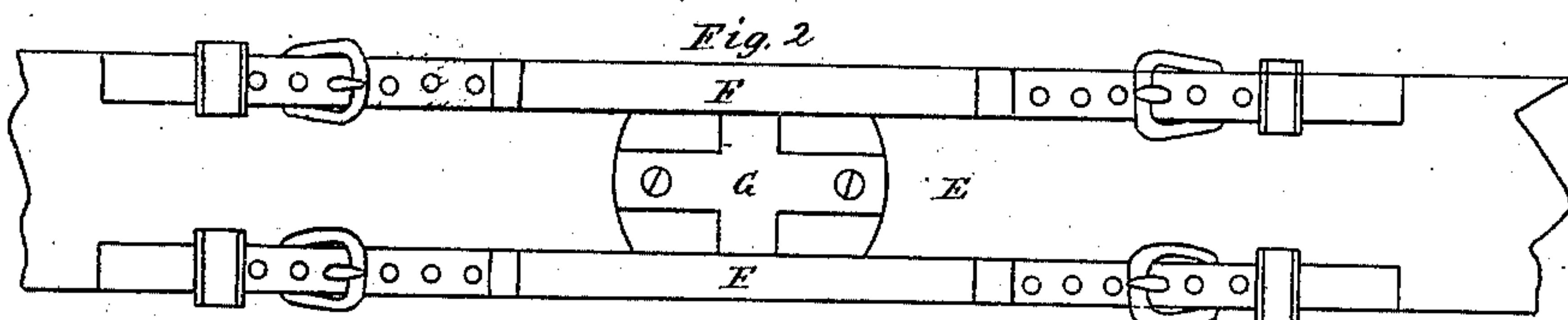
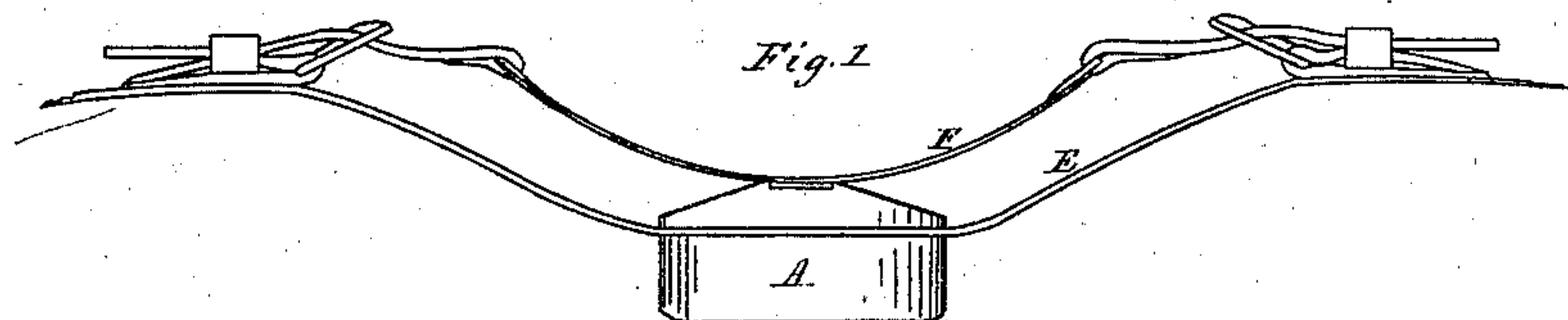


C. A. JEFFERIES & E. F. OLDS.
TRUSS.

No. 74,828.

Patented Feb. 25, 1868.



Witnesses
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S. Holmes

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United States Patent Office.

CHARLES A. JEFFERIES AND E. F. OLDS, OF DEXTER, MICHIGAN.

Letters Patent No. 74,828, dated February 25, 1868.

IMPROVEMENT IN TRUSSES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, CHARLES A. JEFFERIES and E. F. OLDS, of Dexter, in the county of Washtenaw, and State of Michigan, have invented certain new and useful Improvements in Trusses; and we do hereby declare that the following is a full and complete description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is an edge view of the truss.

Figure 2, an outside view.

Figure 3, a view of the inside.

Figure 4, a detached pad.

Figure 5, a top view of fig. 4.

Figures 6 and 7 are transverse sections.

Figure 8 is a detached pad.

Figure 9, a transverse section of the same.

Like letters refer to like parts in the different views presented.

A, fig. 1, is a pad, which may be constructed of wood, rubber, or of any other suitable material, and may be either round or oval, as shown in the drawing. Around the face of the pad is sunk a groove, B, fig. 6, thus forming a central convex projection, C, and an outer rim, D. The purpose of thus constructing the face of the pad is, that when it is applied to the rupture, the central projection will press directly into the orifice of the rupture, and thereby hold that portion of the bowels which is inclined to escape, firmly within the abdomen, while, at the same time, the projecting rim on the outer edge of the face of the pad tends constantly to press the integuments under the pad toward the centre of the rupture, and thereby gradually produce a reduction of the size of the rupture, and ultimate adhesion of its edges. In order to facilitate this adhesion, as fast as the size of the rupture is reduced, by the constant pressure of the outside rim toward the centre of the rupture, portions of the central projection of the pad may be from time to time removed, or pads with a smaller centre may be applied, until the face of the pad becomes entirely concave, as shown in fig. 7, and thus rendered capable of bringing the edges of the rupture together, and holding them in contact until a permanent adhesion can take place. As above said, the pad may be oval, oblong, or round, or any shape that best suits the case under treatment, and which is applied to the injured part by being attached to a belt, E, fig. 1, which is buckled around the body. The pressure of the pad upon the rupture is regulated by the springs F, fixed to the back of the pad, and which extend each way in direction of the belt, the ends curving forward, so that when brought down by straps, the pressure can be regulated as desired. The springs are attached to the pad by means of the plate G, to which they are fixed, and the plate secured to the pad by screws, thus giving to its attachment great strength and security. To each end of the springs are attached straps, which fasten into buckles secured to the belt, so as to adjust the pressure of the springs upon the pad; hence, by means of these springs, straps, and buckles, the direct pressure of the pad upon the rupture is not only secured, but the inclination of the pad in any direction is accomplished, by simply loosening the straps on one side, and tightening them on the opposite side. For the purpose of varying the tension of either side of the belt, the straps and buckles at the end are fastened at the outer edges of the belt. For a double hernia, another pad may be attached to the belt, and applied as above described.

H, fig. 4, is a form of pad which we propose sometimes to use, instead of the solid one above described. This pad is provided with an adjustable centre, C, fig. 6, which may be moved in or out of the pad by means of the central screw I, and thus any degree of prominence may be given to the centre. The upper section, J, of the pad, is secured to the lower one by means of the side-screws K, passing through the upper section into the lower. The purpose of this arrangement is to facilitate, not only the holding of the bowels in place by the central projection, but the closing up of the orifice, by means of pressing the parts toward the centre. As soon as it will answer to raise the central projection, it is easily done by the screw I, and thus give a larger cavity to the face of the pad, so that more of the integuments will pass under it while this is being done. The outer rim can be from time to time let down by the side-screws, so that it will press more firmly the parts together. We do not propose to make all the pads in this way; some of them will have only one part movable, either the

central adjustable and the outer fixed, or the central fixed and the outer adjustable. They are represented both movable in one pad, simply for convenience, and not for practical use.

In the use of the solid pad, it is sometimes found necessary to ventilate it, when the pressure is too much, in consequence of the exclusion of the air from under the pad. In order to do this easily and readily, a portion of the upper side of the pad is removed, making an air-chamber, L, fig. 8. Through the bottom of this chamber are bored small holes, α , through which the air may find passage to the face of the pad. The top of this chamber is covered with a piece of rubber packing, M, on the top of which is fitted a metallic plate, N, both of which are screwed into the recess or rabbet surrounding the top of the air-chamber, as shown in the cross-section, fig. 6. By this means the chamber is made air-tight at the top, air being admitted to the chamber only by passing down the side of the screw O, a portion of one side of which is cut away, so that on screwing it up to the section thus removed, air will pass down by the side into the chamber, and from there to the face of the pad. On driving the screw down, so that the uncut part of the screw will enter the hole, the air is thereby prevented from entering the chamber, and, as a consequence, more will pass to the face of the pad. By this simple device the pad can be at all times ventilated, without disturbing its position and relation to the rupture.

Fig. 8 is a form of pad which may be used for the left or right side, by simply turning the lower section, A', fig. 9, around, from one side to the other, the two sections being so pivoted to each other, that the central projection, B', fig. 8, always occupies the same distance from the centre of the belt, the turning only varying the obliquity of the pad, and consequently the line of the central projection or core, instead of carrying it around in a circle, and making its distance from the centre of the pad variable. It will be observed that the two screws which hold the cap or section C' of the pad to the belt, after passing through the cap and belt, enter a metallic segment, D', fig. 8, upon which the pad moves around either way, and which is firmly held in its position by two segmental plates, E', between which the segment slides as it is being turned around; also that the central pin or screw, F', by which the central projection is adjusted, acts as the pivot on which the pad turns, and when the pad is properly adjusted, it is secured thus by the attachment-screws α , by which the cap or upper section of the pad is fastened to the belt, as before said.

What we claim as our improvement, and desire to secure by Letters Patent, is—

1. The pad A, provided with a rigid central projection, as arranged in combination with the springs F and belt E, for the purpose and in the manner set forth.
2. The pad H, when constructed with a central adjustable projection or core, c, adjusting-screws I K, when arranged in combination with the cap J, plate G, and springs F, in the manner as and for the purpose substantially as set forth.
3. A pad, when constructed with a central air-chamber, L, ventilating-holes α , and plate N, in combination with the screw O and spring F, when arranged in the manner as described and shown in fig. 7.
4. The segment-slide D', segmental plates E', and section or cap C', when arranged and pivoted to the section A', by an adjusting-screw, F', working in and operating a central core, B', so that when the pad is turned around from one side to the other, the said central projection or core B' will always occupy the same direction from the centre of the belt, in the manner substantially as described and shown in figs. 8 and 9.

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E. F. OLDS.

Witnesses:

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C. H. VANCELEVE.