

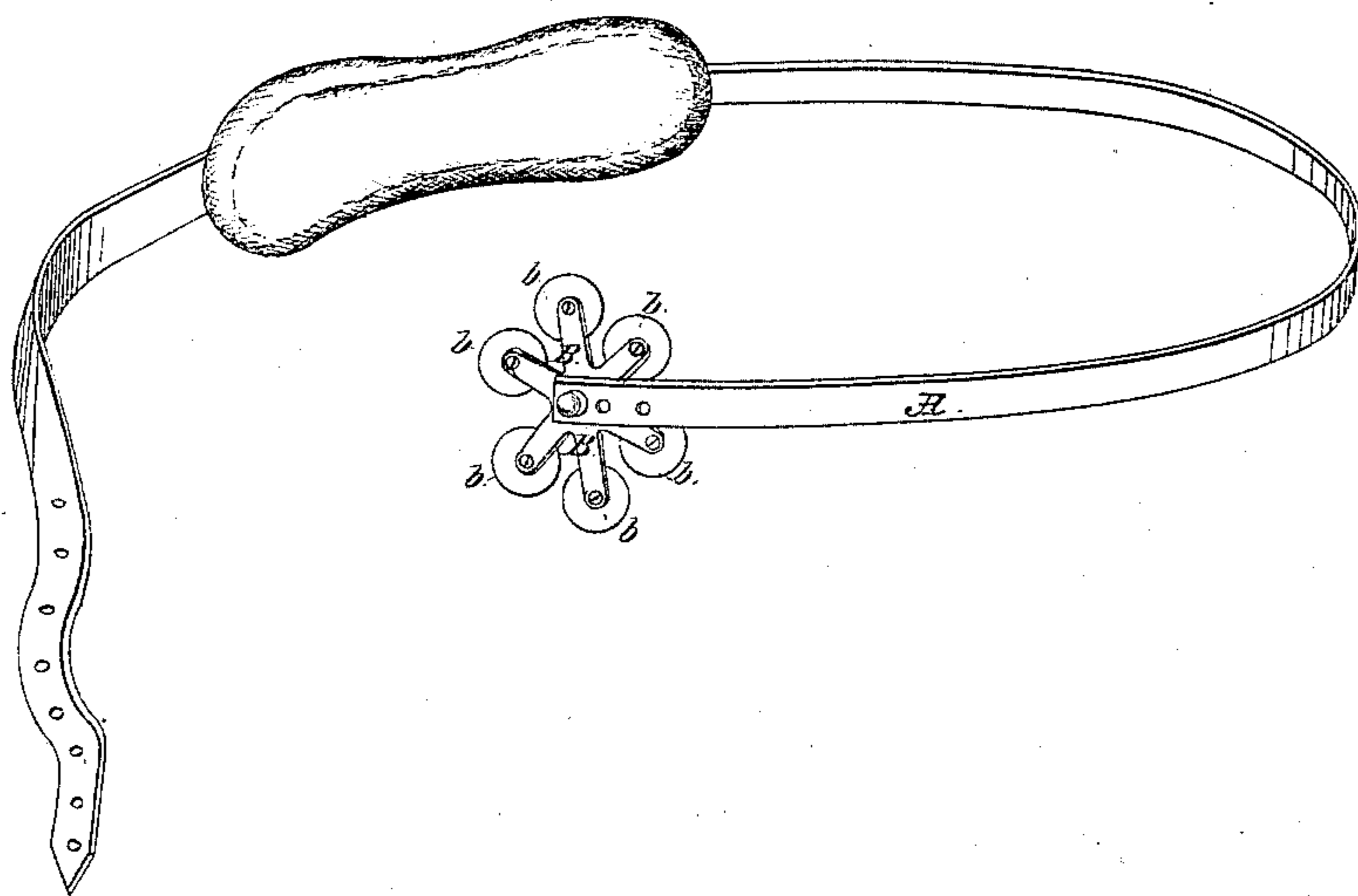
*J. W. Riggs.*

*Truss.*

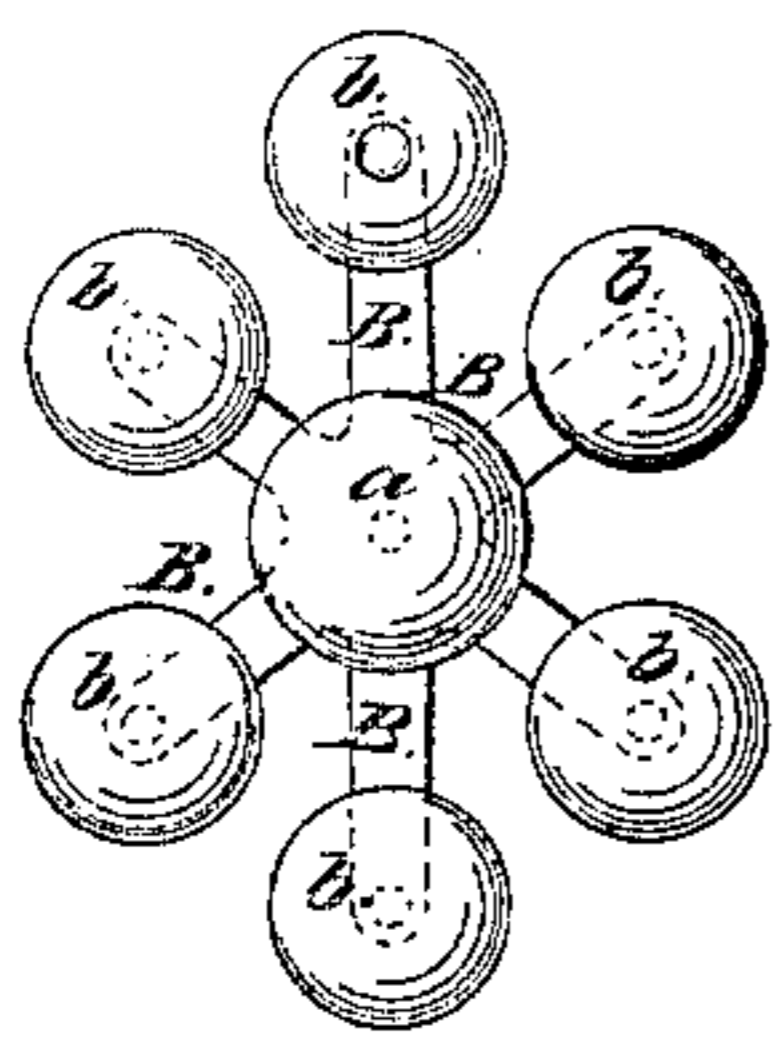
*No. 18,708.*

*Patented Nov. 24, 1857.*

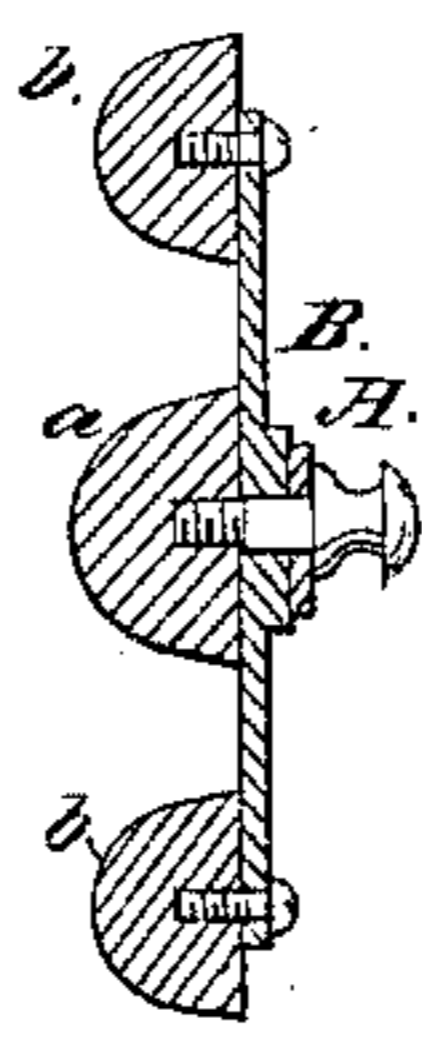
*Fig. 1.*



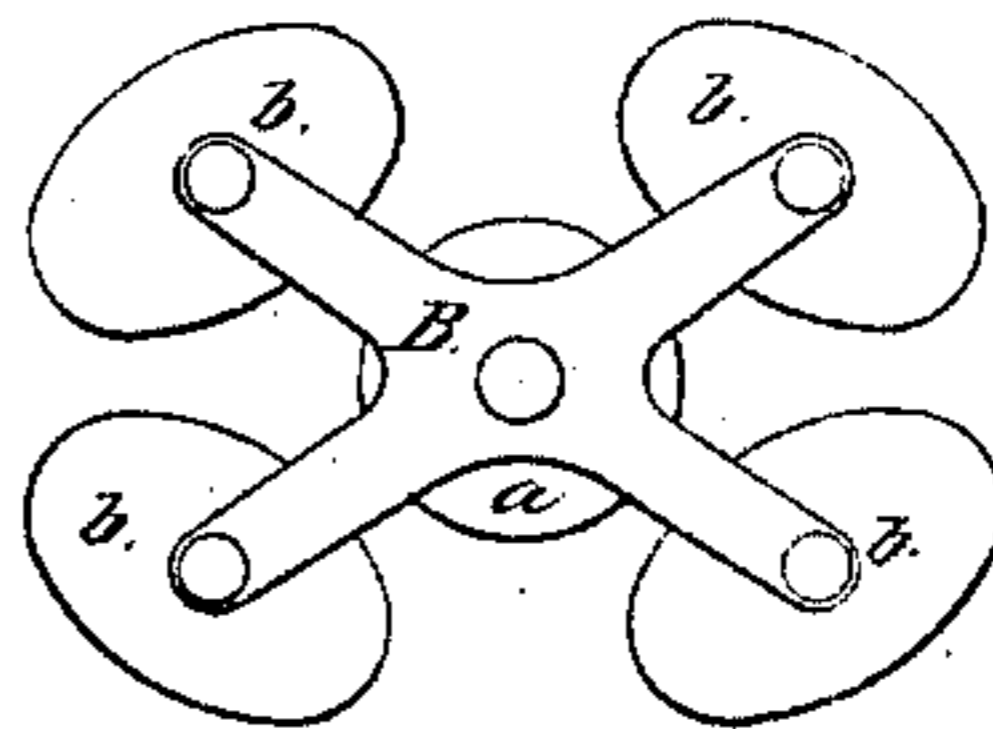
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



# UNITED STATES PATENT OFFICE.

J. W. RIGGS, OF PLAINFIELD, NEW JERSEY.

## TRUSS.

Specification of Letters Patent No. 18,708, dated November 24, 1857.

*To all whom it may concern:*

Be it known that I, J. W. RIGGS, of Plainfield, in the county of Union and State of New Jersey, have invented a new and useful  
5 Improvement in Trusses for the Support and Radical Cure of Hernia; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings,  
10 forming part of this specification, in which—

Figure 1, is a front view of a single truss with my improvement. Fig. 2, is a face view of the pad full size. Fig. 3, is a central  
15 section of the same corresponding with Fig. 2. Fig. 4, is a back view of a pad somewhat modified.

Similar letters of reference indicate corresponding parts in the several figures.

20 This invention consists in constructing the pad of a truss of a series of balls or knobs or in any way making it with a series of knobs or protuberances on its face, the number of such balls, knobs or protuberances  
25 and their arrangement being such as to cause the force of the truss spring to be exerted at several distinct points or intervals around and along both sides or margins of the inguinal canal, and abdominal ring.

30 To enable others to make and use my invention I will proceed to describe its construction and operation.

The pad represented in Figs. 1, 2 and 3, is constructed by attaching a number of semi-  
35 spheroidal knobs *a*, *b*, *b*, *b*, of hard india rubber, wood, glass, porcelain or other material to a stiff plate B, of metal, the said knobs being arranged with their axes perpendicular to the plate, the knob *a*, being  
40 arranged centrally with the others *b*, *b*, *b*, arranged around it at short distances apart in such manner that they may be circumscribed by an ellipse of about the same size as an ordinary convex truss pad. The central knob *a*, should be so applied as to be  
45 capable of removal, at pleasure to avoid pressure upon and consequent injury to the spermatic cord. The pad represented in Fig. 4, has a similar plate B, with a central  
50 pad *a*, like that of the pad shown in Figs. 1, 2, 3, and with surrounding pads *b*, *b*, of ovoid form having their axes arranged parallel or nearly so with the plate B. The pad may be constructed in a variety of ways,  
55 provided always that its face has the same knobbed or noded character, as for in-

stance it may be made all in one piece of any suitable material or may be constructed with a plate of similar form to B, as represented in the drawing but with the plate  
60 thin enough and of suitable metal to give it a degree of elasticity. It is attached to the main spring A of the truss in the usual manner.

In explanation of the superior effect of  
65 my improved pad as compared with the truss pads heretofore used I will first remark that it is a well known fact that continued pressure upon the animal tissues is always followed by loss of substance and attenua-  
70 tion by reason of absorption of the tissues thus acted upon. As an exemplification of this truth it is only necessary to refer to cases in which for any considerable time the ordinary convex truss pad has been worn,  
75 the uniform and inevitable effect being to obliterate the capillary vessels and reduce the subjacent tissues to a mere tendinous expansion, thus aggravating the disease and in many instances rendering the hernia incur-  
80 able by the very means intended for its relief. The concave or ring-pad, though it does not necessarily produce absorption of the tissues to the same extent—and is for this reason preferable, perhaps, as a means  
85 of temporary relief or support—yet, it is wholly incapable of producing adhesive inflammation, and cannot therefore be relied on, in any case, as a means of cure. The same result is produced by the convex or  
90 ring pad.

My improved pad not only obviates the foregoing objections to the convex and concave pads, but it combines all the desirable  
95 qualities claimed for either while at the same time it is believed to possess important advantages over any truss heretofore employed for the cure of hernia, which may be enumerated as follows, 1st: Having many  
100 bearings upon the surface it is immovable by the various motions of the body. 2nd. These several bearings being separate and distinct, each from the other, it admits of the free and uninterrupted circulation of the blood through the tissues; not only this,  
105 but by the irritation which it produces at so many different points around and contiguous to the hernial openings, it actually induces an increased influx of blood to the parts and thus secures the great desideratum  
110 for which it is intended, to wit; adhesive inflammation throughout the tissues and con-

sequent occlusion of the hernial openings.  
3rd. By the use of this pad air is constantly  
admitted to the surface by which the patient  
escapes the annoyances of burning heat and  
5 excoriation so common in warm weather,  
to the use of any pad having a continuous  
bearing which excludes the air.

What I claim as my invention and desire  
to secure by Letters Patent is—  
10 The construction of the pad with a

knobbed or noded face substantially as  
herein described so that it shall press upon  
several distinct points or intervals around  
and upon the tissues concerned in hernia  
and not have a continuous bearing, and op- 15  
erate as herein set forth.

J. W. RIGGS.

Witnesses:

ELIAS KIRKPATRICK,  
WILLIAM KIRKPATRICK.