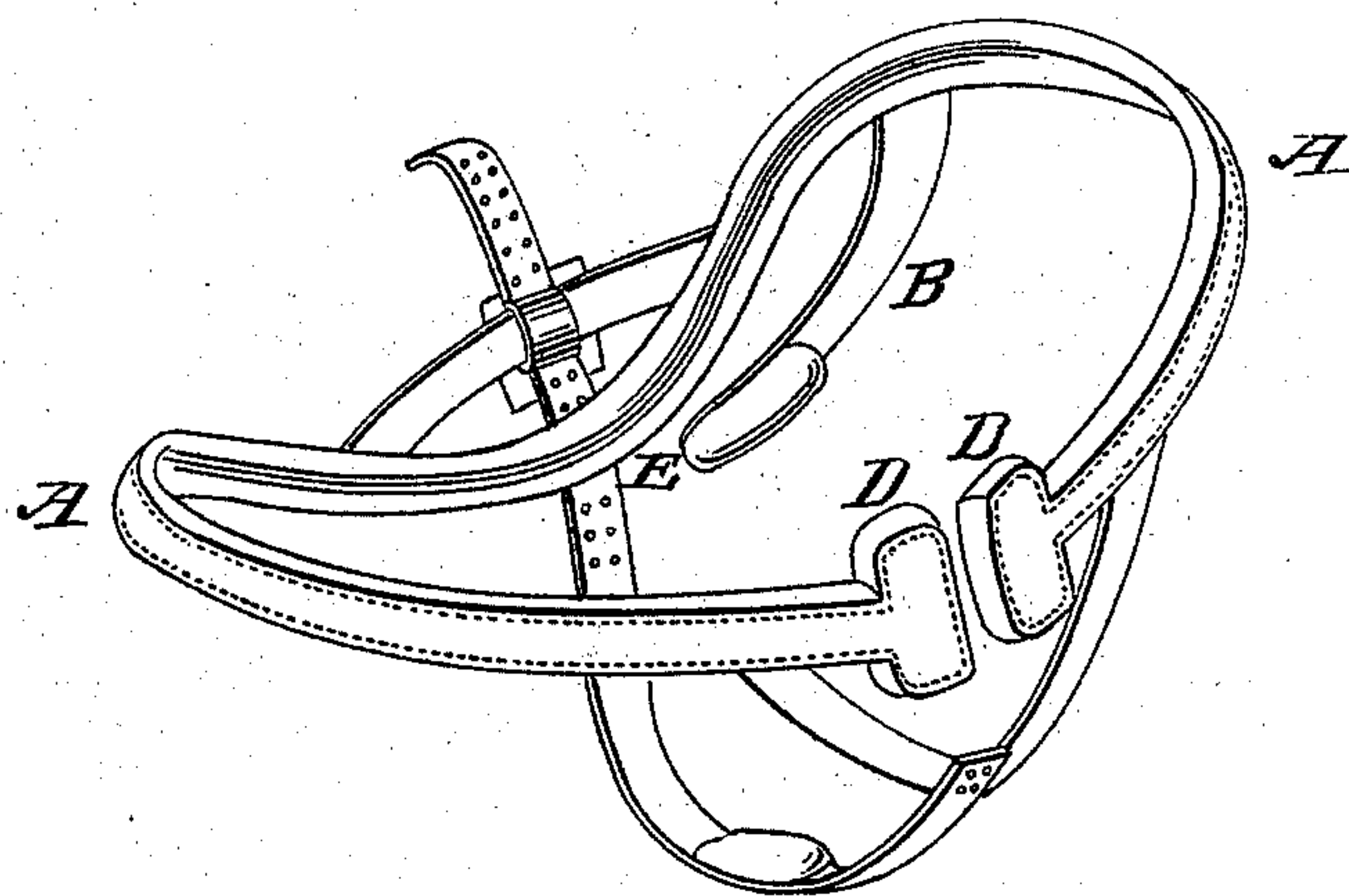


*G. W. Riddell,*

*Truss,*

*Nº 2,713.*

*Patented July 11, 1842.*





# UNITED STATES PATENT OFFICE.

GEO. W. RIDDELL, OF KNIGHTSTOWN, INDIANA.

## TRUSS.

Specification of Letters Patent No. 2,713, dated July 11, 1842.

*To all whom it may concern:*

Be it known that I, GEORGE W. RIDDELL, of Knightstown, in the county of Henry and State of Indiana, have invented a new and valuable Improvement in Trusses for the Cure or Relief of Prolapsus Uteri or Falling of the Womb and Hernia; and I do hereby declare that the following is a full and exact description thereof.

My said invention consists in the application of a block of acute convexity to the abdominal ring, by means of a branch spring, let off from a large mainspring which surrounds the body, with two pads attached to the ends thereof, intended to press longitudinally between the transverse and spinous processes of the inferior portion of the lumbar vertebræ, and the superior portion of the os sacrum; the block aforesaid is intended to produce inflammatory action and consequent adhesion of the parts which have been separated; the mainspring to support the abdominal viscera from its wanted pressure upon the abdominal ring and to support the uterus and the pads to afford strength and support to that part of the body to which they are applied.

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

I construct my mainspring A, A, (as shown by the drawing) of good cast or other steel, after the following rule, to-wit, when intended for a patient of medium size, I form the body of the spring nine sixteenths of one inch in width, six thirty-seconds of an inch in thickness; and three feet and five inches in length, and made to surround the body in the following manner, viz, to be so formed that by placing the center, E, immediately over the symphysis pubis, it will ascend obliquely on each side, to the superior spinous process of the illium, thence descending, in an inverse ratio of obliquity to the lower portion of the lumbar vertebræ, giving it a semicounter force toward the center of its own circumference, from the points A, A, to the pads D, D, which produces an increased pressure upon the lumbar vertebræ, and the inferior por-

tion of the abdomen, with a view to sustain the uterus in cases of prolapsus, and to relieve the abdominal ring from the usual pressure of the bowels. I form the hernial branch spring B, of the same material as the mainspring, and of the following dimensions, viz, one half of one inch in width, one eighth of one inch in thickness and six inches in length; giving to it a form corresponding to the  $\frac{1}{4}$  part of an ellipsis and secure it to the mainspring by means of rivets, at a point proportionate to the situation or location of the rupture, so as to throw the block, C, directly upon it, and give both springs a strong elastic temper.

I construct the block C, of good solid timber, with strict reference to the external form of abdominal ring, being particularly careful to have the convex portion sufficiently acute, to produce inflammatory action of the extreme concavity of the abdominal ring; said block, C, is to be of the following dimensions, to-wit, two and  $\frac{25}{100}$  inches in length, one inch in thickness, at the center of the base, and one inch and one half in depth at the center, or deepest portion thereof, the extreme convexity to be so formed as to resemble the point of an acute angle, so as to effectively prevent the slightest protrusion of the bowels, and to produce inflammatory action of the extreme concavity of the abdominal ring as aforesaid. The block, C, is secured to the hernial branch spring by means of screws, and adjusted with strict reference to the anatomical structure of the abdominal ring.

The pads D, D, I construct after the following manner, viz, by forming two pieces of iron three fourths of an inch wide,  $\frac{3}{16}$  of an inch thick and four inches long, secure them respectively to the extremities of the mainspring by means of screws, or otherwise, in such a manner as to press longitudinally between the transverse and spinous processes of the inferior portion of the lumbar vertebræ and the superior portion of the os sacrum, these plates or pieces of iron being covered with leather and padded so as to form a pad four inches long, one inch wide and one and one-half inches deep. The springs are covered in the usual way of cov-



ering trusses, and the whole is secured to the body by means of straps in the usual way.

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

The particular form of the block, C, and the size thereof, applied by means of a hernial branch as above described, the semi-counter force of the mainspring and the

combination of the pads D, D, with the 10 mainspring, which will afford strength and support to that region of the body to which they are applied, which is generally more or less affected in cases of prolapsus uteri.

GEORGE W. RIDDELL.

Witnesses:

SAML. HOOVER,  
I. V. WAYMAN.