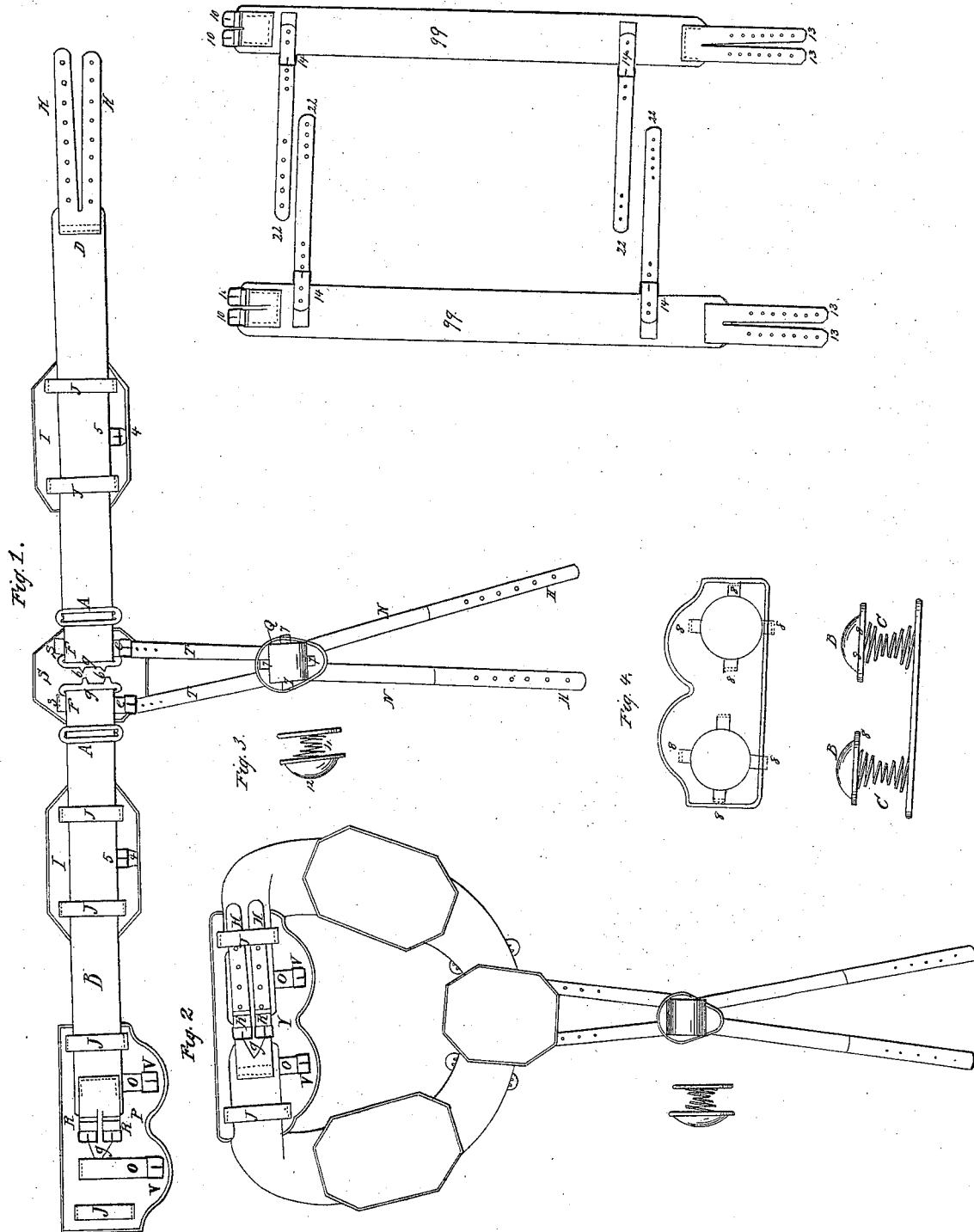


E. Thomas, Truss.

N^o 1511.

Patented Mar. 12, 1840.



UNITED STATES PATENT OFFICE.

ENOCH THOMAS, OF NEW ATHENS, OHIO.

SURGEON'S TRUSS.

Specification of Letters Patent No. 1,511, dated March 12, 1840.

To all whom it may concern:

Be it known that I, ENOCH THOMAS, of the town of New Athens, in the county of Harrison and State of Ohio, have made a new and useful Improvement called "Thomas' Hernial and Uterine, Elastic and Spring Supporter," and that the following is a full and exact description thereof.

The elastic and spring supporter may be said to consist of 4 parts: 1st, the belt; 2d, the pads; 3d, the inferior part; 4th, the femoral pads and hip strap.

First part B: the elastic belt composed of two pieces of elastic suspender webbing from eighteen to twenty inches long. The one end of each piece passes through 2 metal loops, *g, g*, on the sacrum pad *s* to the slide A, one on each side, to which these ends are made fast. The other side of each piece after passing under the reserve leather loops on the middle and front pads buckles at *g* by the leather straps, *H, H*, which are stitched to the main piece B, at D. The buckles *R, R*, on the other end of the belt are fastened in the same way.

Second part, the pads: They are 5, including the hernial pad—1st, the front pad P, the hernial pad; 2d, the pubic pad Y; 3d, the ilium pads I, I, one on each side; 4th, the sacrum pad S, the front pad P. The hernial pad consists of a pad P, two spiral springs C C and two small inguinal balls B B, resting on the top of the springs C C. There are 8 small leather loops fastened on the inside of the pad P, Figure 4, 4 on each end marked on the drawing by a pen and represented by the Fig. 8. The end of the spring which rests on the pad passes under these leather loops by a single turn of the spring in the hand, so that it may be put in or taken out at pleasure. On the under surface of the inguinal balls B, B, are eight other small loops marked also by the fig. 8—4 on each ball. The balls are put on the springs by turning the end into one of the loops to the 2d and so on till all are on. These small balls may be taken off as well as in the other case. On the outside of the pads P and at each end of the pad is a leather loop I I, under which the belt passes in its course forward. These are stitched to the main pad P. On the front part of the pad also are two buckles Y Y, suspended by

the leather slips O O, which are stitched to the upper part of the pad P. Second, the pubic pad Y is constructed on the outside with leather loops, V V, buckles and leather slips, the same as the hernial pad P, and marked with the same letters. Third, the ilium pads I I, one on each side. There are also two leather loops P P, on the outside of these pads, one at each end, under which the belt passes; also a small buckle marked figure 4 in the center of each pad suspended by the leather slips 5. Fourth, the sacrum pad S has in its center outside two metal loops *g, g*, which are made fast there by other leather loops 6, 6. The belt passes through these loops as above stated. There are also on the outside of this pad two buckles E, E, suspended by the leather slips F, F, which are stitched to the pad S at 3.

Third part, the inferior portion consisting of several parts: 1st, T T, two straps of leather half an inch wide, which pass from the perineal pad Q to the sacrum pad S and buckles into the buckles, E, E, on the same pad.

N, N, are two straps, round, $4\frac{1}{2}$ or 5 inches long, cut an inch wide, edges sewed together stuffed with wool and covered with black Morocco; H, H, two leather straps, flat, which pass from these last forward to the buckles V V on the front pad into which they are made secure. Next is the perineal pad Q, which consists of a part Q, a spiral spring, 11, and the perineal balls 12. The spring is turned into four small loops 7 on the upper surface of the pad Q. The perineal ball 12 is put on the top of the spring in the same way, viz., by small leather loops on the undersurface of the ball. The pad may be taken apart easily. The loops in this pad and ball are not represented in the drawing. The pad remains stationary between the leather straps T T, and the round straps N N, they being sewed to the under-part of the pad E.

Fourth part consists of two pads called femoral pads *g, g*, one on each side. They pass around the thigh at its upper end, and are made fast by the buckles 10, 10, and leather straps, 13, 13. There are two buckles on each of these pads, one on the inside of the thigh, the other on the outside or nearly so, marked 14, 1. These buckles stand

nearly perpendicularly to the buckles on the front and ilium pads. There are also 4 leather straps half an inch wide, two called hip straps and two pubic straps, represented by the number 22, two on each side. The hip straps run from the buckles 14 on the inside of the thigh to the buckle V on the front pad, one on each side. The hip straps run from the buckle 14 on the outside of the thigh to the buckle 4 on the ilium pad one on each side. This completes the description of the supporter.

Directions for applying and an explanation of the principle involved in the application of the supporter.—This new and useful improvement is especially designed and perfectly adapted to cases of original hernia either in the male or female, and is so constructed as to prevent during its application any protrusion of the intestines through the inguinal ring. It is also perfectly adapted to cases of prolapsus uteri in the female. The supporter is so constructed that it may readily be made larger or smaller throughout every part of it so as to accommodate any case. This is done by moving the slides A A on the back part of the belt, as you may want to make larger or smaller. Its application in a case of inguinal hernia is made in the following manner: First, the sacrum pad is fixed in the hollow of the sacrum which it is to support. The ends of the belt are brought forward around the hips or ilium 2 inches below the superior point of the ilium across which the ilium pads rest. The ends pass under the leather loops I I, on the front pad P, or Y as the case may be and back as at g. The front pad is now to be so adjusted as that the inguinal balls B B on the ends of the springs C C shall rest against the inguinal openings. Thus fixed the belt is buckled tight by which the springs coil on themselves, and consequently permit the balls to rest on the face of the pad, by which there is power given to the spring, and though the pad should be considerably moved the balls still press hard against the inguinal openings by the power of the springs. There may be also almost any degree of motion in the pelvis and still the balls are secured because there is a rotary motion in the center of the spring. Second, the femoral pads are passed around the upper part of the thigh and buckle on the inside of the thigh so that the small buckles on the inside marked 14 may be perpendicular to the buckle V on the front pad, one on each side. The buckle 14 on the outside of the thigh, is immediately below the buckle marked 4, on the center of the ilium pad, one on each side. The pubic straps then pass from the buckles 14, on the inside of the thigh to the buckles V on the front pad. The hip straps pass from the buckles 14 on the outside of the thigh to the buckle 4 on the center of the

ilium pads. The four straps buckled, all is secure. Its application in prolapsus uteri is the same, only that if it is prolapsus simply the hernial pad will be laid aside and the pad Y used in its place. If both diseases exist in the female at the same time the pad P will be used.

The inferior part which is not used in a case of hernia (unless both exist at the same time) will be used in prolapsus uteri in the following manner: The leather straps T, T, are secured in the buckles E E on the sacrum pad S. The other ends will be brought forward between the legs and secured in the buckles V V on the front pad Y by the leather straps H, H. In its way forward the perineal pad Q is made to apply to the perineum which it supports by means of the spring which is fixed in it. The spring is contracted in the application and hence the expansive power of the spring is increased. The perineum is raised and the womb wedged in its natural place. This spring like the others possesses a complete rotary motion in its center. Hence the principle involved is that of support made by springs and balls, which springs admit of motion every way without removing the point of support.

The materials for and the manner of making the pads of the supporter.—The materials are neat skirting leather, cotton wadding, Morocco, drab hat binding, worsted girthing for the belt in hernia, and elastic suspender webbing in cases of prolapsus uteri, metal buckles and loops and steel spring wire. The pads are made out of neat skirting leather with the corners cut off and the edges pared down, then several folds of cotton wadding of a less size than the pad. Over all is a piece of Morocco lining. The edges of the lining and leather are whipped together with a needle and silk twist, then bound around by drab hat binding. All the pads are made in the same way except the hernial pad which is made with two pieces of skirting and a brass plate in the middle. The edges are made as the others. The spiral springs are made on two turned balls of the shape of half an egg, with the small ends together. On the ball are grooves cut in a spiral form—these balls are fixed on an iron spindle with a crank to it by which the wire is rolled on the balls in the grooves. Then one of the balls is taken off and the spring removed. All the springs are made in the same way. The perineal and inguinal balls are made of several small pieces of leather pared down, then covered with cotton lined with Morocco and made as the others. The round straps N N are stuffed with wool and covered with Morocco and made as above stated. The inferior part of the supporter is not used in a simple case of hernia. That part of the specification

which refers to the pubic pad Y will be understood by referring to Fig. 2 in the drawing.

What I claim in the elastic and spring supporter as my own invention is—

The simple combination of the thigh straps for retaining the belt *in situ* with the belt

constructed and operating as above described.

ENOCH THOMAS.

Witnesses:

WILLIAM ESTEP,
W. H. McNARY.