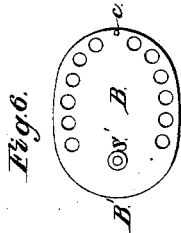
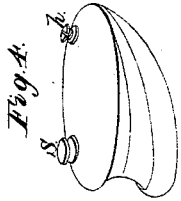
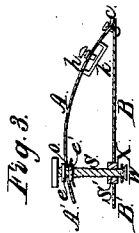
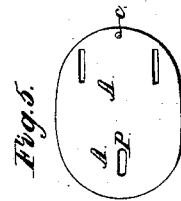
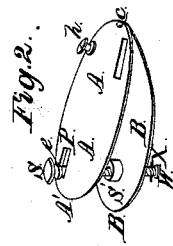
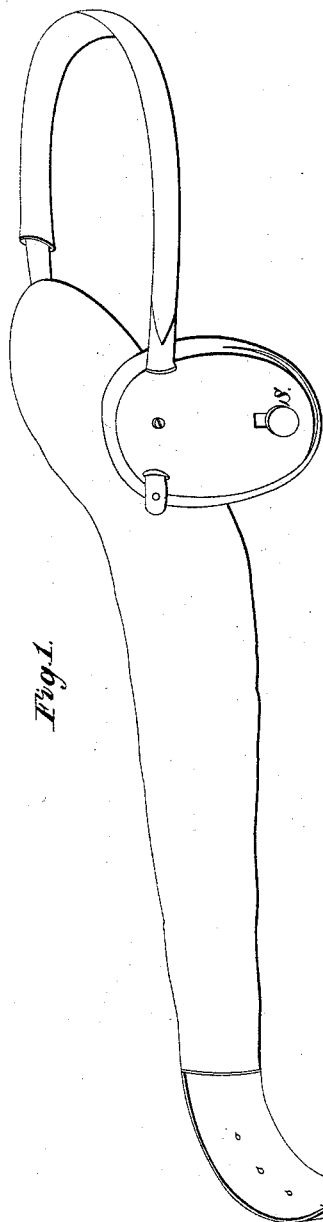


*N. R. Goulding,*

*Truss Pad.*

*N<sup>o</sup> 4,095.*

*Patented July 5, 1845.*



# UNITED STATES PATENT OFFICE.

WILLIAM R. GOULDING, OF NEW YORK, N. Y.

## DOUBLE-TRUSS PAD.

Specification of Letters Patent No. 4,095, dated July 5, 1845.

*To all whom it may concern:*

Be it known that I, WILLIAM R. GOULDING, of the city and State of New York, have invented an Improved Graduating Truss for the Amelioration and Cure of Hernia; and I hereby declare the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification.

10 I make use of the ordinary belt, or cushion for the back, and steel strap or common main truss spring; my improvement being confined to the front pad, and the means of graduating its pressure, particularly of increasing or diminishing the pressure inward and upward at the inferior region of a rupture, without at the same time affecting the pressure on the opposite or upper region. Instead of attaching the main spring directly to the ordinary plate or back of the pad, I connect it by a screw and socket *k, k*, Figure 3, to a separate back marked *A A* Figs. 2, 3 and 5. This back is made of sheet metal, stamped into a hollow form, with the view of combining lightness and stiffness. It is of the same dimensions as the plate *B*, Figs. 2, 3 and 6, to which the pad is attached. *A A* is fitted with the concave side downward to *B* as shown at Figs. 2 and 3. Both are connected at one extremity by a loose rivet, *C*, Figs. 2, 3 and 5, which serves the purpose of a hinge, allowing them to open to a sufficient extent somewhat like the shells of an oyster.

35 As the truss spring is permanently fixed to the back *A A*, both remain relatively at rest, it therefore follows that the plate *B* if moved at all, must move on the rivet, as on a center. The end *B'*, the lower part of the pad (when in use,) will therefore describe a portion of a circle whose radius extends from *B'* to the rivet and consequently press the protruding viscera over which it may be placed, upward and inward in proportion as *B'* recedes from *A'*, while that part adjoining the rivet will hardly be affected at all.

To impart the requisite movement to the plate *B'*, *B*, and its pad I introduce the screw *S* Fig. 3 through *A A* at *O*. The head of *S* is milled so as to be readily turned by

the wearer of the truss, with the finger and the thumb. The part that works in *A A* has no thread cut on it. A collar *E*, on one side and another *E'* slipped over the thread and secured by a pin on the other, prevent it from rising or descending through *A A* but permit it freely to turn in the opening. To receive the threaded part of this screw, a hole *S'* is drilled and tapped immediately opposite to it in a stud on the plate *B*, so that by turning the screw *S* the plate (and pad stitched to it) are made to approach toward or recede from *A'*. It is however evident that the parallelism of the male and female screws *S* and *S'* could not be preserved, as the space between the plate *B* and back *A A* varied unless there be some provision by which one may yield to the changing position of the other. I therefore cut a slit along the back *A A* as shown at *P*, so that the screw *S* is free to move in a direction to or from the rivet and thereby accommodate itself to the varying position of the plate and pad. To prevent the screw *S* from being wholly drawn out of *S'*, a wire pin is passed through its lower end, the ends of the pin extending sufficiently over the opening as at *X* or a button screwed or riveted on the end answers the same purpose as shown at *W*.

A series of holes are punched in the pad plate Fig. 6 with the view of removing superfluous metal and keeping it as light as possible.

In the finished truss both the plate and back are covered with leather as represented at Fig. 4. The heads of the screw *S* and that by which the spring is secured in the socket only being exposed.

Fig. 1, represents the truss complete.

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

The aforesaid mode, and others substantially the same, of graduating the pressure of a truss by a screw, in combination with, the additional plate or back, and main spring.

WM. R. GOULDING.

Witnesses:

EDWARD JONES,  
BENSON L. COOPER.