

C. Cutter,

Truss.

N^o 2,856.

Patented Dec. 16, 1844.

Fig. 4

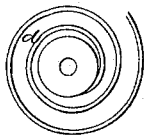


Fig. 5

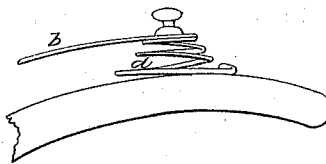


Fig. 1.

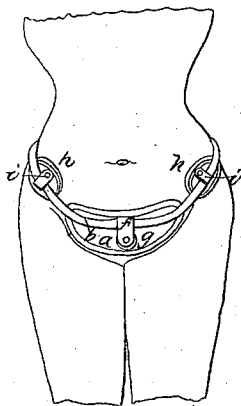


Fig. 2.

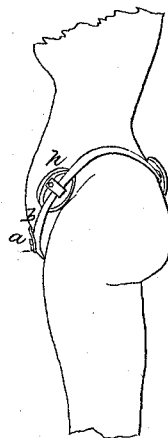


Fig. 3

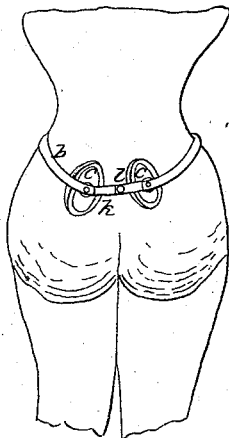


Fig. 6

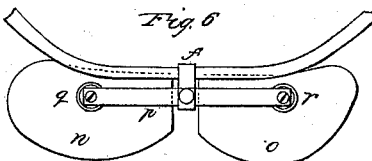


Fig. 7.

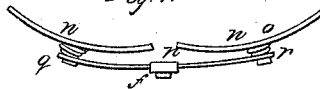
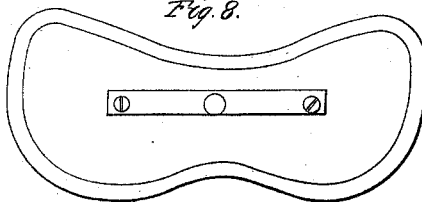


Fig. 8.



UNITED STATES PATENT OFFICE.

CALVIN CUTLER, OF SPRINGFIELD, MASSACHUSETTS.

TRUSS.

Specification of Letters Patent No. 3,856, dated December 16, 1844.

To all whom it may concern:

Be it known that I, CALVIN CUTLER, of Springfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Improvement on What is Known Among Surgeons as the "Abdominal Supporter," and that the following description and accompanying drawings, taken together, constitute a full and exact specification of the construction and operation of my invention.

Figure 1, represents a front view of my supporter as applied to the human body. Fig. 2, is a side view thereof. Fig. 3 is a view of the rear parts of the same.

One of the great advantages of this improved instrument over others consists in its being self adapting, that is to say when arranged upon the body the several parts of it readily take their proper positions and maintain them during the natural movements of the body in anterior, posterior or lateral direction.

In Figs. 1 and 2, *a* represents the main front pad, and *b* the steel spring which supports the said pad and goes nearly around the body and has at each of its ends a pad *c*, to which it is secured by means of a conic helical wire spring *d* of the kind seen in Figs. 1, 4 and 5, the former being a top view of the spring and the latter a side elevation of it on an enlarged scale, exhibiting it as connected to the end of the steel spring and pad. One end of the spring *d* is secured to the pad and the other to the end of the body spring *b*, such a spring (*d*) permitting the pad to lay flat against the body over or in the region of the kidneys, or to accommodate itself thereto when applied to the body.

The curved spring *b* ascends upon the anterior and lateral parts of the abdomen over the situation of the ascending and descending colons and winds around the body above the margin of the ossa illii or haunch bores, until it arrives opposite the spine at the lower part of the lumbar vertebra and upper part of the sacrum.

The pad *a*, which is attached in front consists of a concavo convex plate of metal or other suitable material (of about four to eight inches in length and from two to four inches in width) covered with leather, silk or other proper fabric, and well stuffed on its concave or rear side or that part of it in contact with the abdomen. The usual

manner of attaching the main pad to the body spring, has been to either rivet or fasten it directly to the spring, or to connect it to the spring by means of a conic helical spring like that heretofore described. My mode of doing the same is to apply a metallic loop or clasp *f* to the center of the body spring, so as to slide upon the spring and extend below the same about one inch and a half, and to connect the pad (at a point between its center and its lower edge) to the lower end of the said clasp or piece *f*, by means of a conic helical spring *g* of the kind above described. By this mode of connecting the pad to the spring *b* the pressure upon the pad will be exerted upon its lower part so as to press it in a proper manner firmly into its place against the lower part of the abdomen. The conic helical spring enables the pad to readily adapt itself to the outer surface of the abdomen; while the clasp acts, as it were with the power of a lever to produce the necessary pressure to sustain the abdomen.

There are two small lateral pads *h*, *h*, applied to the spring *b*, one being on each side of the central pad and between it and the posterior pad. These lateral pads are connected to the body spring by means substantially like those employed in connecting the central pad to it, with the exception that in this case the clasps *i*, *i*, of the pads *h*, *h*, extend upward from the body spring instead of downward, as does the clasp *f*. The rear ends of the spring *b* may have a strap *k* and button *l* or any convenient and proper means attached to them for the purpose of securing and holding the instrument to the body.

Fig. 6 denotes a method of constructing the frame or metallic part of the front or central pad, which will be found to be very useful, the said figure being a front view of the metallic portion of the pad. Fig. 7 is a top view thereof.

Instead of one thin metallic plate as generally used I employ two, viz. *n*, *o*, which are arranged as seen in the drawings (Figs. 6, 7) and connected by conic helical springs *q*, *r* to the ends of a thin piece or strip of steel *p*, which is secured at its center to the clasp *f* before mentioned. The plates *n*, and *o* are to be covered with leather or other proper material and padded or stuffed on their rear sides; the covering extending from one plate to the other so as to give

the two when covered the appearance of one large pad, a front view of which is given in Fig. 8. Such a mode of constructing the front pad renders it much easier to the wearer than when its frame or plate is of one piece of metal, as it more readily accommodates itself to the motions of the body in various directions and maintains a correct position during the same.

- 10 In the application of the above pads and springs I intend to give support to the lower parts of the abdominal muscles in front, while support is given to the caput coli, ascending colon, liver and kidney on the right side, and to the sigmoid flexure of the colon, the descending colon on the left side and the lumbar region and sacrum upon the back, without compressing or interfering with the functions of the ganglions plexuses and nerves of the abdomen, or the abdominal
- 20 corta, cava ascendens, the hepatic gastric splenic superior and inferior mesenteric or emulgent arteries and veins. By this arrangement of pads and springs there is no interference with the functions of the lungs and heart. Thus, the physician or surgeon can effectually apply the stimulus of pressure, and gentle and equal support to

the cure of diseases of the kidneys, bladder, uterus, rectum, colon, spleen, stomach, and liver, together with those of the spinal column and chest, without uneasiness to the patient or injury to the important functions of the vital organs of the system.

Having thus explained the nature and principles of my invention it is not my intention to claim generally the use of lateral pads as heretofore applied, but to claim—

One or more lateral pads (*h*, *h*) as combined with or used in connection with the central pad and in front of the crest of the ilium, for the purpose of producing uniform pressure on the site of the colon and kidneys on the right side from the caput coli, or head of the colon, to the lower rib of the same side, and upon the left side from the sigmoid flexure of the colon to the lower rib of the same side.

In testimony that the above is a correct specification of my said invention I have hereto set my signature this first day of August, A. D. 1844.

CALVIN CUTLER.

Witnesses:

LESTER WILLIAMS,
F. PERKINS.