

M. L. Knapp,

Truss,

No. 7,916,

Patented Jan. 28, 1851.

Fig. 3.

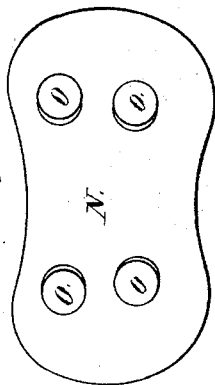


Fig. 1.

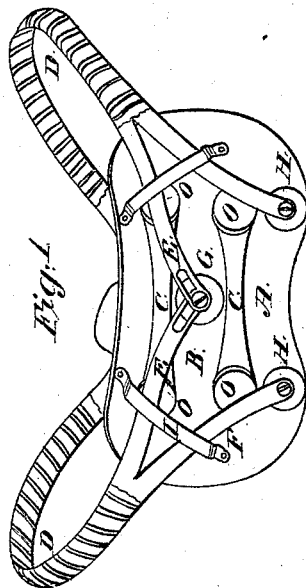


Fig. 2.

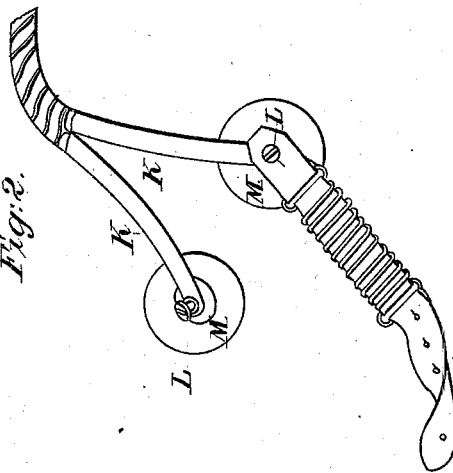
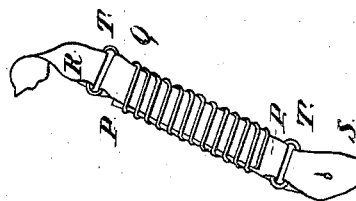


Fig. 4.



UNITED STATES PATENT OFFICE.

MOSES L. KNAPP, OF PAINESVILLE, OHIO.

ABDOMINAL SUPPORTER.

Specification of Letters Patent No. 7,916, dated January 28, 1851.

To all whom it may concern:

Be it known that I, MOSES L. KNAPP, of Painesville, in the county of Lake and State of Ohio, have invented a new and useful Machine for Supporting the Abdomen in Cases of Muscular Relaxation and for other Purposes, called the "Self-Adjusting Abdominal Supporter;" and I do hereby declare the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the whole machine; Fig. 2, a partial view; and Figs. 3 and 4, detailed parts of the said machine, the same letters referring to similar parts in all the drawings.

To enable others skilled in the art to make and use my said invention I hereby describe its construction and operation.

A, Fig. 1, is a pad made of hard wood, about one-fourth of an inch in thickness, and of any suitable size, of an oblong form with rounded ends, as more particularly described in the drawing thereof. The said frame or pad is concave on the inside and convex on its outer surface.

C, C, are long narrow perforations cut horizontally through the said pad, said spaces being gradually widened toward their extreme ends to admit into them four buttons of the cushion hereinafter mentioned.

B is a horizontal bar.

D D is a pair of hip springs of steel, each spring is divided or split at both ends so as to present separate elongations of the same piece of metal, which are widened or made flaring to suit the purposes hereinafter mentioned, that is to say.

The upper prongs E E are bent upward, and the lower prongs F F downward, as will be seen on reference to the drawing—the extreme ends of the upper prongs E E are turned or bent a little downward, through which said bent parts slots are cut. The ends of the lower prongs have holes for the insertion of the pivot screws hereinafter mentioned.

G is an adjusting screw working into a nut in the center of the bar B.

H, H, are pivot screws screwing into the lower part of the front of the pad.

I, I, two loops or straps of brass or other

metal to be fastened permanently on the pad with screws.

K, K, Fig. 2, are the two flaring prongs of the other end of one of the said hip springs, M, M, small circular pads attached to the same by means of the pivot screws, L, L. Graduating holes are formed in the ends of said prongs for the purpose of shifting the location of the pads M M. The head of the pivot screws L L are adapted to receive the strap of the elastic springs hereafter mentioned.

N, Fig. 3, is a thin elastic cushion having on its outside four buttons, O, O, O, O, fitting into corresponding places in the wood pad A, Fig. 1.

To put the above described parts into operation the lower prongs of the hip springs are placed on raised washers of tin or other metal placed on the lower part of the frame at the points indicated in the drawing and there secured by the pivot screws H, H; the upper prongs are then brought to meet in the center of the bar, on which is placed another raised washer, and the adjusting screw placed through the slots—both springs are then kept snug to the pad by screwing on the straps or loops I, I. On the other ends of the said hip springs the small round pads are placed, and there adjusted by means of the pivot screws and graduated holes. The cushion N is placed on the inside of the pad A by inserting the buttons into the enlarged ends of the horizontal openings. The intention of the pivot screws H, H, and the adjusting screw and slots is to allow the hip springs to rise or fall, thereby adapting them to the hips of the wearer—the said adjustment being secured by tightening the screw G.

The object of the open perforations in the pad A is to obviate the generating of heat in warm weather by allowing a free ventilation to the part covered by the pad, and to admit the use of a movable cushion when such is found necessary. It is evident that the split or divided ends of the back extremities of the hip springs before mentioned will allow the pressure from the main part of the said spring to be divided or distributed thereby affording greater ease to the wearer and at the same time offering less obstruction to the natural movements of the spine.

Having described the construction and also the operation of my improvement what I claim as my invention and desire to secure by Letters Patent is—

5 The construction of hip springs with split or divided ends forming elongations of the same strip of steel, the front prongs having slots and pivot holes, and the back prongs

having two or more graduating pivot holes, to be used in combination with the adjust- 10 ing screw and pivot screws as herein substantially set forth.

MOSES L. KNAPP.

Witnesses:

LEWIS MILLER,
JOSEPH F. SINGLE.