

S. S. Fitch
Suspenders

N^o 6512.

Patented Jun. 5. 1849.

Fig. 1.

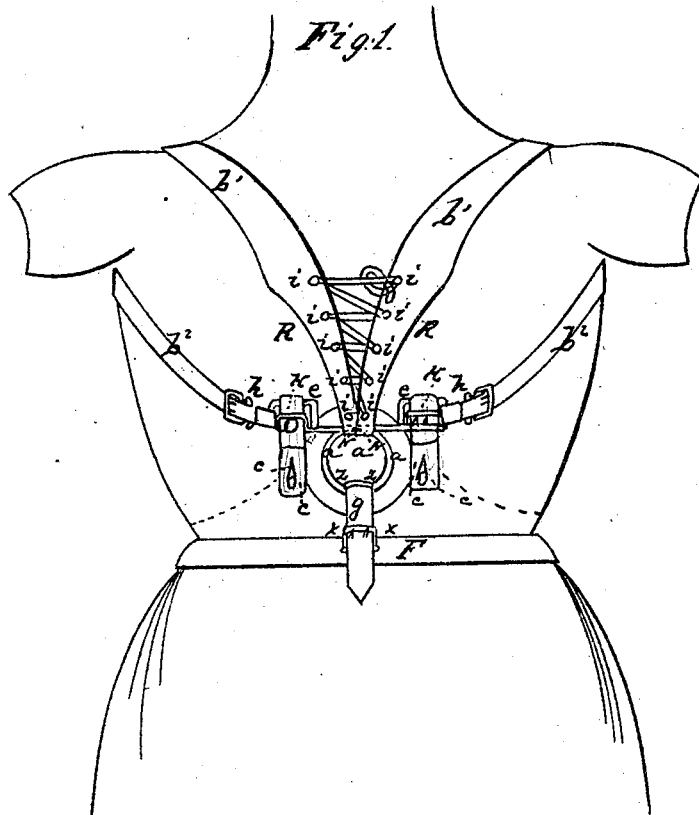
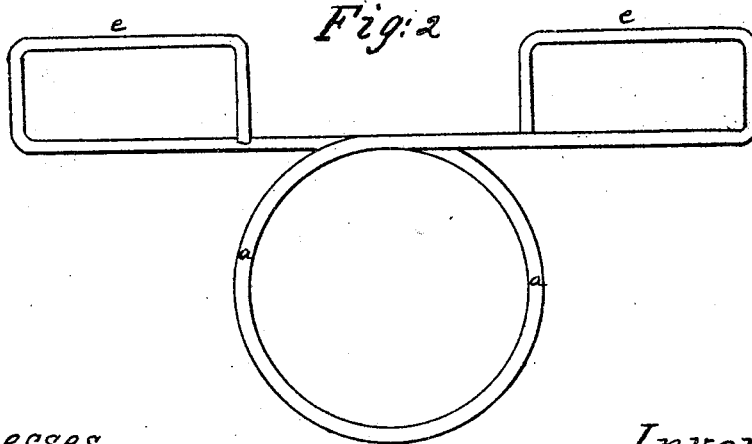


Fig. 2



Witnesses

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SAMUEL S. FITCH, OF NEW YORK, N. Y.

SHOULDER-BRACE.

Specification of Letters Patent No. 6,512, dated June 5, 1849.

To all whom it may concern:

Be it known that I, SAMUEL S. FITCH, M. D., of the city and county and State of New York, have invented and made and applied to use certain new and useful Equivalents in the Arrangement of Materials Employed for Producing a Shoulder-Brace and Chest-Expander.

The means employed by me in constructing the instrument is the combination of a metallic spring with shoulder straps, lacings, suspension straps, and a waistband of materials hereinafter described, and to be worn on the human body for restoring and sustaining the symmetry of the shoulders, and for expanding the chest.

The following is a full, clear, and exact description of the method of making the shoulder brace and chest expander taken in connection with the drawings hereto annexed and making part of this specification.

Figure 1 is a perspective view of the back part of the human body, and shows the instrument as intended to be worn; Fig. 2 shows the metallic coiled spring with arms, and an ear at each end. The metallic coiled spring herein described, is of a size as large as will be used in an operative instrument.

The letters and figures used as marks of reference apply to the like parts in both figures.

Fig. 1 is a waistband of any flexible material either of leather, india rubber, cotton, or woolen cloth, cotton, woolen or worsted webbing, or any analogous material, varying in width and length to suit the wearer, on one end of which is to be attached a metallic buckle, through which the opposite end is to be inserted, and which when placed around the body, will aid in graduating the waistband to persons of different diameters.

Fig. 1 is a loop stitched to the inside of the waistband made of a material like the waistband, having a buckle *x* Fig. 1 attached; the length of the loop will vary according to the size of the wearer, say, from six inches to fifteen inches in length; one end of the loop passes through an opening at *z z* Fig. 1 in the lower part of the pad and about one inch from the bottom of the pad, which opening *z z*, is wrought in a manner similar to a button hole, and of a width sufficient to admit the passage of the loop freely—after the loop enters the opening in the pad it passes over the lower part of the curve of the metallic coiled spring

and enters the buckle *x x* Fig. 1 and is secured. Upon each of the longitudinal ears of the spring *e e* is stitched a tug *h h* Fig. 1 made of a like material and width and varying in length from two inches to six inches, according to the size of the wearer—the end of which is inserted in a buckle of metal to the opposite end of which buckle is attached a piece of similar material varying in length from one and a half inches to three inches, and in which is wrought a button hole as shown at *c c* Fig. 1 or a hook of metal, or loop, or cord of any known material may be used to fasten each tug upon buttons of the pantaloons arranged in a manner similar to suspender buttons. Upon each of the ears of the arms of the metallic coiled spring is stitched or secured a tug *h h* of similar material and width, varying in length from one to two inches with a metallic buckle secured to the opposite end of each tug. To the center of the bearing of the metallic coiled spring at *N* are stitched two straps *b', b'*, Fig. 1—the stitching passing also through the upper side of the pad *a*. The straps referred to are sloped at *h h* to admit of the width entering between the ears formed upon the horizontal ends of the arms of the coiled metallic spring; the straps which are shown at *b' b'* are to be made sufficiently long to extend up the back over the shoulders under the arms, and enter the tugs *h h*, as shown—the part of each strap where it enters the buckle upon the tug may be double or single, relative to the usual thickness of the straps, and if doubled secured in any manner, and for any length, according to the taste of the constructor—or each strap may be sloped to make the reduction, so that the reduced part will enter the buckle freely. Upon the inner edge of each of the two straps *b' b'* may be inserted five or more or less eyelet holes as *i i i* Fig. 1, in which to insert a lace or any device answering the purpose of a lace, to contract or permit the extensions of the straps for the ease of the wearer. The metallic coiled spring *a* lies upon a pad or cushion and which in Fig. 1 is marked *pad* in three places; the pad or cushion may be of any shape and may be made of two or more folds of any kind of material suitable therefor, the object being to prevent irritation of the skin in the contraction and expansion of the metallic coiled spring. The metallic coiled spring *a* may be made of any

flexible metal but steel wire will be found most useful. It may be made of varying diameter of one or more coils, and the horizontal arms and depth and length of the ears *ee* to suit the convenience of the wearer. Fig. 2 in the drawing is a convenient size. The object of the spring as described is to give elasticity to the instrument and make it agreeable to the wearer as well as useful. 10 The metallic buckles which have been described may be of any convenient size and also of any convenient shape. The remaining material may be as herein before described. It will be seen that the several 15 parts which I have described, taken in connection with the drawing Fig. 1 and Fig. 2 when joined together will form a shoulder brace and chest expander to be worn on the human body for restoring and sustaining 20 the symmetry of the shoulders, and for expanding the chest.

Having thus fully described the parts and

combination of parts, and the operation of the shoulder brace and chest expander and shown the several modes in which the instrument may be rendered useful, I hereby 25 declare that I do not claim to have invented a metallic coiled spring with horizontal arms although I do not know of any spring of the kind herein described having been 30 essayed for the same purpose, or the shoulder straps, or any of the separate parts of the instrument, but

What is claimed therein as my invention is—

The employment of the metallic coiled spring with one or more coils in combination with shoulder straps, with or without eyelet holes and lace, tugs, and pad, substantially as and for the purposes described.

S. S. FITCH.

Signature acknowledged in presence of—
GEO. C. THOMAS,
E. D. WILLURA.