

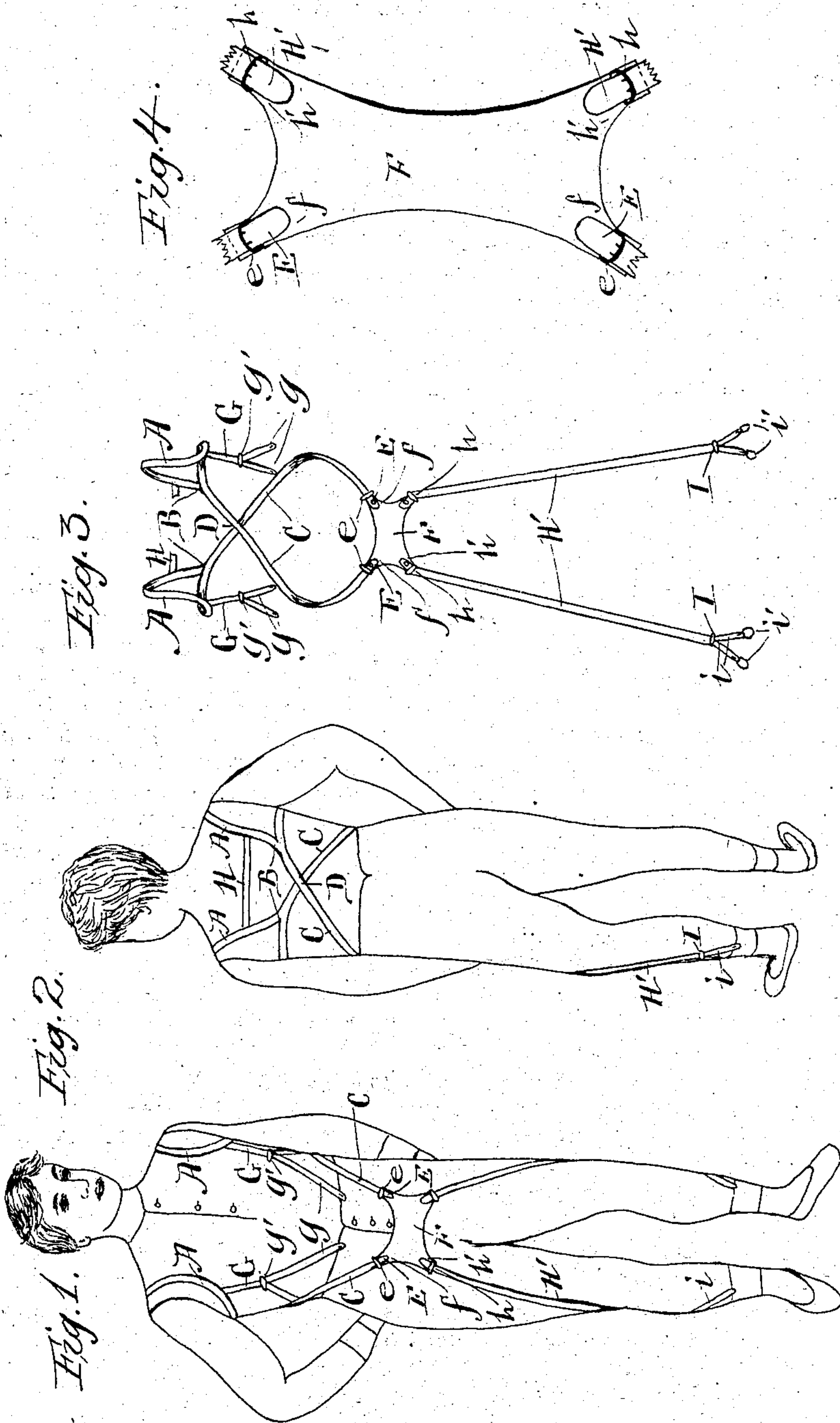
No. 781,544.

PATENTED JAN. 31, 1905.

T. E. McMURTRY.

COMBINATION SHOULDER AND BODY BRACE WITH ATTACHMENTS.

APPLICATION FILED JUNE 27, 1903.



WITNESSES:  
Oscar W. Bond  
William P. Bond

INVENTOR.  
Tillman E. Murtry  
BY Bauming & Bauming,  
ATTORNEYS



# UNITED STATES PATENT OFFICE.

TILLMAN E. McMURTRY, OF CHICAGO, ILLINOIS.

## COMBINATION SHOULDER AND BODY BRACE WITH ATTACHMENTS.

SPECIFICATION forming part of Letters Patent No. 781,544, dated January 31, 1905.

Application filed June 27, 1903. Serial No. 163,435.

*To all whom it may concern:*

Be it known that I, TILLMAN E. McMURTRY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Combination Shoulder and Body Braces with Attachments, of which the following is a full, clear, and exact description.

The invention relates to shoulder and body braces with attachments; and the objects of the invention are to produce a brace that will be simple and economical of construction, comfortable and durable for wear, that will be so arranged on the body with relation to its structure as to assist, correct, and sustain, while in an upright position only, those anatomical structures that have to do with the correct and normal carriage of the human body; to secure equal tension and pressure on all parts of the body while in an upright position and to release all tension and brace effects whenever the body assumes any position in bending, sitting, or reclining; to provide support for the lower abdominal regions and suspension for the trousers or skirts, the socks or stockings or any garment needing support at or below the waistline, and to facilitate the moving body in securing and maintaining the normal swing of the arms and shoulders with relation to the feet. I attain these ends by means of the mechanism or device as set forth in the following specification and illustrated in the accompanying drawings, of which—

Figure 1 shows the brace in front as worn; Fig. 2, a back view of the same; Fig. 3, a perspective view of the entire brace, and Fig. 4 the abdominal pad.

The brace is constructed to have shoulder-loops A adapted to encircle the right and left shoulders, and at the inner lower sides of said loops at the points B, which are adapted when in use to lie over the lower spinal borders of the scapulæ, are joined body-straps C, which cross each other in the back at the point D and follow the line of the body downward in the course of the fibers of the latissimus dorsi muscles and cross the spine and each other at the point indicated and from thence pass around over the fibers of the oblique abdominal muscles, following the course of said mus-

cles around to the front of the body and terminating in ends E, which are adjustably secured by means of buckles *e* to the upper corners *f* of an abdominal pad F, which is adapted to lie over the groin, and, as shown, is of substantially oblong shape, having its greatest extent transversely across the abdominal region. It is to be understood that the left shoulder-loop anchoring is connected to the upper right buckle of the abdominal pad and the right shoulder-loop anchoring to the left buckle. To the lower sides of the two shoulder-loops are attached suspenders G, terminating in attaching-arms *g* for the attachment thereto in any ordinary way of the trousers, skirt, underwear, or other garment, and each of the suspenders is provided with an adjustable buckle *g'* of any usual character for regulating the length and tension exerted by the suspenders. The weight of the garment supported by the suspenders gives a sufficient downward tension on the shoulder-loops to remove irksome and hurtful pressure from the structures of the armpit. The shoulder-loops are connected by means of a strap H, which passes across the back above the crossing-point of the body-straps and serves to hold the brace in an adjustable position.

The above-described elements constitute the upper section of the brace. The lower section of the brace comprises right and left leg-straps H', secured by means of adjusting-buckles *h* to the lower corners *h'* of the abdominal pad, and said leg-straps are provided at their ends with adjusting-buckles I, to which are attached diverging arms *i*, terminating in clasps or clips *i'* for the purpose of securing the arms to a sock or stocking. By securing the brace in this way the leg-strap serves not only as a support for the sock or stocking, but also as a means for holding the abdominal pad and brace attached thereto in place.

It will be understood that in fitting the brace to any person having a deformity or for use with female garments the parts may be shortened or lengthened to meet the requirements of each particular case. It is preferred to form the abdominal pad or section F of webbing or other suitable material of about



one inch in width, and said pad should be placed crosswise of the body immediately over the upper border of the pubic bone, the groins receiving its ends, the four corners of which serve, as before stated, for the attachment of the different straps. This arrangement connects the left shoulder-loop with the right leg-strap and the right shoulder-loop with the left leg-strap, which causes all of the forces to center in the abdominal pad, which is adapted to shift its position, relieving severe tension and pressure on one section of the brace by taking up the slack from a corresponding section, and at the same time the pad acts as an abdominal supporter.

The brace when put in position and properly adjusted to the body and when the body is upright, as when walking and standing, affects the carriage, first, by drawing backward the shoulders; second, by pressing forward and slightly upward on the spine at the point of jointure of the two body-straps, and, third, by pressing backward on the pelvis. This concerted action of the brace upon the shoulders, spine, and pelvis curves the lumbar and dorsal spine forward together and at the same time retracts the shoulders and hips. When walking, as the right foot goes backward at the completion of the step the tension caused thus exerts a pull on the left shoulder, drawing it backward, while the right shoulder, on account of the simultaneous flexing of the knee and hip of the left leg and the slack thus occasioned in this portion of the brace,

is released and moves forward. The shoulders alternating thus with the feet give a normal swing to the moving body. The leg-straps are arranged to follow the curvature of the thigh and pass around from the front to the outer side of the legs, thereby closely following the natural curve of the muscles.

The detachable and adjustable buckles render the brace readily adjustable and enable it to be easily and quickly removed and replaced. It may be worn over the outer shirt and drawers and is made of some flat strong material, such as webbing, preferably non-elastic, although certain of the straps may be elastic, if so desired.

What I regard as new, and desire to secure by Letters Patent, is—

A brace consisting of shoulder-loops adapted to encircle the shoulders of the wearer, body-straps secured to the loops and crossing each other from rear to front of the body of the wearer, suspenders depending from the shoulder-loops, a section of material adapted to lie over the abdominal region to which the body-straps are attached, and leg-straps secured to said section and adapted to have the hose of the wearer attached thereto, to exert a downward tension and hold the pad in place, substantially as described.

T. E. McMURTRY.

Witnesses:

F. C. Cady,  
JOSEPH SHERLAW.