

July 23, 1929.

J. I. BROKAW

1,722,192

BODY BRACE

Filed April 14, 1928

2 Sheets-Sheet 1

Fig. 1.

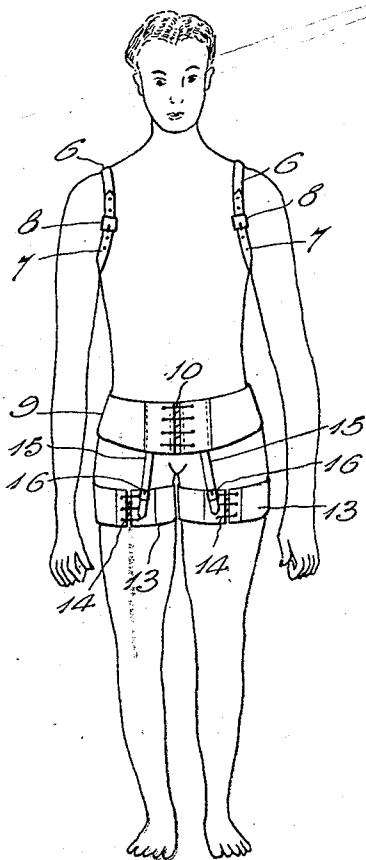


Fig. 2.

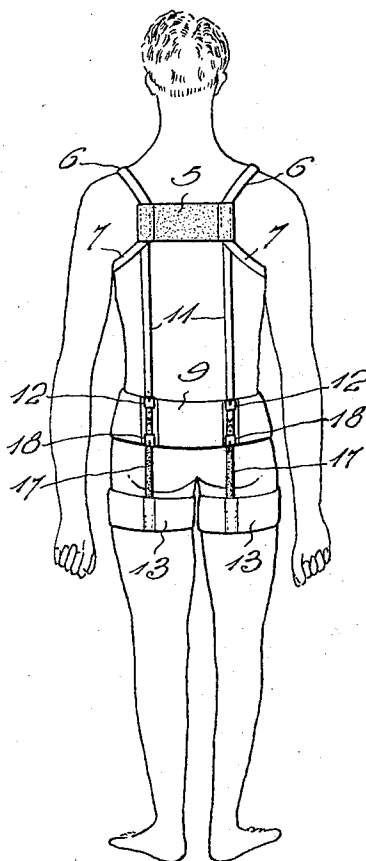
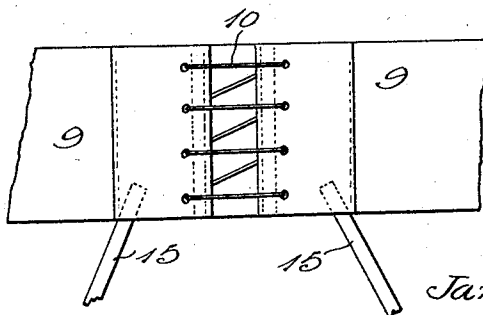


Fig. 3.



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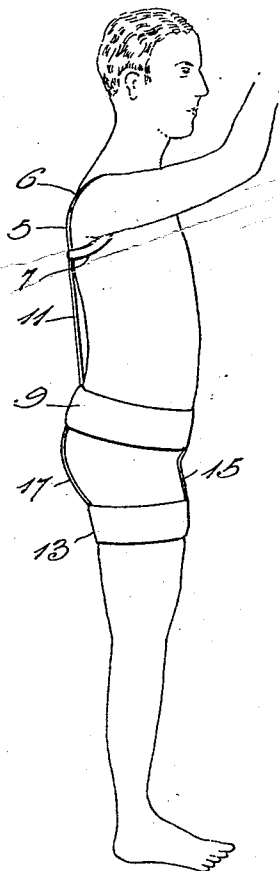


Fig. 3.

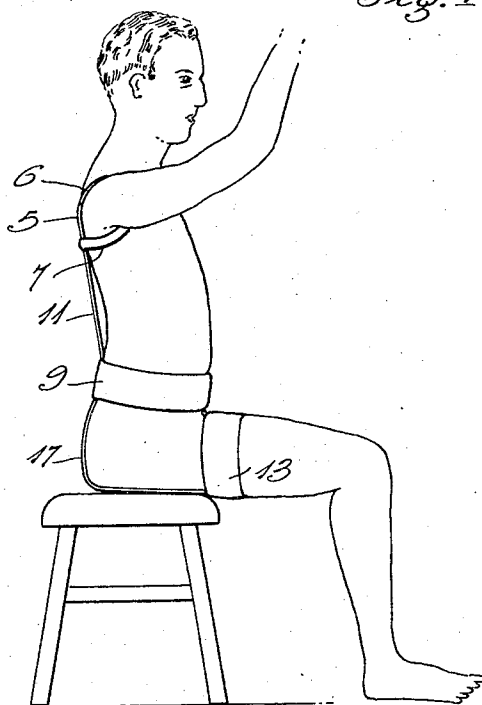


Fig. 4.

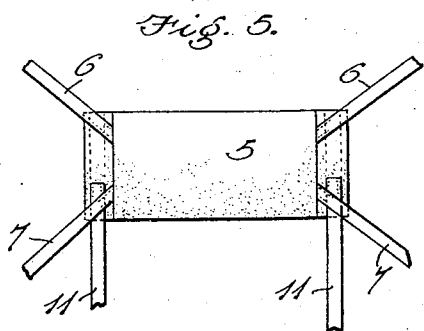


Fig. 5.

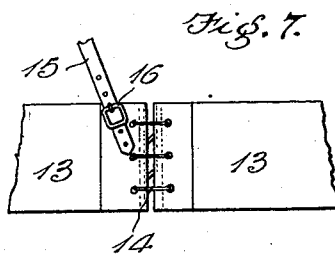


Fig. 7.

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BODY BRACE.

Application filed April 14, 1928. Serial No. 270,015.

This invention relates to improvements in body braces for drawing and holding the human body erect and in correct posture when in either a standing or sitting position.

One object of the invention is to provide an improved construction and arrangement of bracing members which will compel the wearer to assume a correct posture at all times.

Another object is to provide a brace of this character in which when all the parts have been properly adjusted to the wearer there will be no pull or stress anywhere while the wearer is standing erect or in correct posture, but as soon as the slightest slump from such correct posture occurs, a powerful pull will immediately arrest it and since such pull will make the wearer uncomfortable the brace will teach the individual to acquire correct posture.

With the foregoing in view the invention resides in the novel subject matter herein-after described and claimed, the description being supplemented by the accompanying drawings.

Figs. 1, 2 and 3 are respectively front, rear and side views of a human body in standing position showing the application of the invention.

Fig. 4 is a side view of the body in sitting position showing the appearance of the invention when the body is in this position.

Fig. 5 is a detail view of the back bracing pad showing the ends of the back and shoulder bracing straps connected thereto.

Fig. 6 is a front view of a portion of the girdle forming part of the brace.

Fig. 7 is a similar view of one of the leg bands or cuffs.

The numeral 5 denotes a back bracing pad of suitable size and preferably oblong in shape and which is disposed against the upper portion of the back between or in line with the shoulder blades. This pad is of heavy construction and formed of rubber or elastic webbing and has an initial resistance equal to about four pounds dead weight. To the upper corners of the pad 5 are connected the rear ends of the upper sections 6 of a pair of non-elastic shoulder straps, the rear ends of the lower sections 7 of which are connected to the lower corners of the pad. The upper sections of these shoulder straps pass over the shoulders while the lower sections pass under the shoulders and beneath the arms. The front ends of the strap sections 6 and 7

are adjustably connected by buckles 8 or similar fastenings as shown in Fig. 1.

Around the upper portion of the hips and the abdomen is a girdle 9 of suitable width and formed of heavy elastic webbing which also has an initial resistance equal to about four pounds. The ends of this girdle are adjustably connected together at the front of the abdomen by a suitable lacing 10 as shown in Figs. 1 and 6.

Connected at their upper ends to the lower corners of the back bracing pad 5 are a pair of back bracing straps 11 of suitable width and formed of rubber or elastic webbing which has an initial resistance equal to about two pounds. The lower ends of the straps 11 are adjustably connected to the back of the girdle 9 by buckles 12 or similar fastenings.

Around the thigh of each leg is a leg band or cuff 13 formed of cloth or non-elastic material and of such width that they will not interfere with the blood circulation in the legs but will permit a rather strong upward pull by members attached thereto. The ends of these bands or cuffs are adjustably connected together at the front of the thighs by lacing 14 as shown in Figs. 1 and 7.

To the front side of the girdle 9 a short distance from the laced ends thereof are connected the upper ends of short non-elastic straps 15 the lower ends of which are adjustably connected to the leg bands or cuffs 13 by buckles or similar fastenings 16. These straps prevent the girdle from moving upward or laterally under any conditions.

To the rear sides of the leg bands or cuffs are connected the lower ends of short straps 17 formed of rubber or elastic webbing. The upper ends of these straps are adjustably connected to the rear side of the girdle 9 by buckles or similar fastenings 18. The straps 17 each have an initial resistance equal to about one pound and they are so arranged and connected with the leg bands and girdle as to pass over the center of each buttock as shown in Fig. 2 of the drawing.

As indicated in Figs. 3 and 4 the straps 11 will exert a strong downward pull on the pad 5 and the shoulder straps, to hold the body erect and in correct posture and will cause proper arching of the spine. As indicated however this pull is felt by the wearer only when the body slumps or moves out of correct posture. When in a sitting position and not

in proper posture, additional pull will be exerted by the straps 17 to correct such irregularities or bad posture as it is well known that the habit which leads to bad posture is usually acquired when in sitting position.

The back bracing pad 5 is preferably five inches wide and eight inches long. The girdle 9 is preferably five inches wide while the leg bands or cuffs are preferably four inches wide. The shape and dimensions of these parts as given have been found to be most satisfactory in producing the desired results.

In certain cases the lower abdomen may be raised and supported by suitably adjusting the girdle 9 and the parts connected thereto.

I claim:—

1. A body brace comprising an elastic back bracing pad, non-elastic shoulder engaging straps connected to said pad, an elastic girdle to engage the hips and lower abdomen, elastic back bracing straps connecting said pad and girdle, leg engaging bands and front and rear straps connecting the front and rear portions of the girdle with said bands.

2. A body brace comprising an elastic back bracing pad, non-elastic shoulder straps connected with the ends of said pad and passing over and under the shoulders, an elastic girdle to engage the hips and abdomen, elastic back bracing straps connected at their upper ends to said pad, said straps extending downward in parallel relation along the opposite sides of the back and having their lower ends connected with said girdle, a pair of relatively wide non-elastic leg bands to engage the thighs of the legs, non-elastic straps connected at their upper ends to the front portion of said girdle and at their lower ends to the front portions of said bands, and elas-

tic straps connected at their upper ends to the back portion of said girdle and at their lower ends to the back portion of said leg bands.

3. A body brace comprising an elastic back bracing pad for engagement with the back in line with the shoulder blades, non-elastic shoulder straps, comprising upper and lower sections connected respectively with the upper and lower corners of said pad, said upper sections being adapted to pass over the shoulders and said lower sections under the shoulders and beneath the arms, means for adjustably connecting the free ends of said strap sections together at the front of the shoulders, an elastic girdle to engage the hips and abdomen, means for adjustably connecting the ends of said girdle, a pair of elastic back bracing straps secured at their upper ends to the lower corners of said pad and having adjustable connections at their lower ends with the rear portion of said girdle, a pair of relatively wide, non-elastic leg bands, to be engaged with the thighs of the legs, means for adjustably fastening the ends of said bands around the thighs, non-elastic straps connected at their upper ends to the front portion of said girdle and having adjustable connections at their lower ends with the front portions of said leg bands and elastic straps connected at their lower ends with the back portions of said leg bands and having adjustable connections at their upper ends with the back portion of said girdle, said last named straps being arranged to pass over the center of each buttock.

In testimony whereof I have hereunto affixed my signature.

JAMES ISAAC BROKAW.