

R. E. KELLY.
BACK BRACE.

APPLICATION FILED APR. 14, 1920.

1,417,250.

Patented May 23, 1922.

FIG. 1.

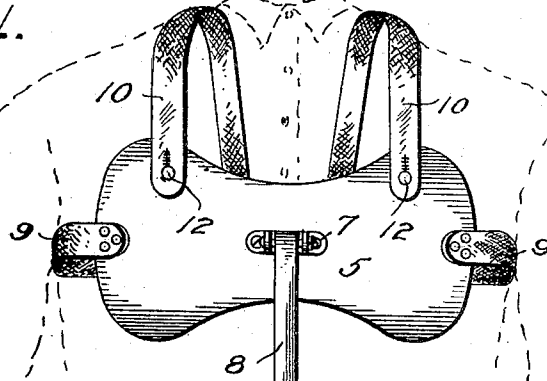


FIG. 2.

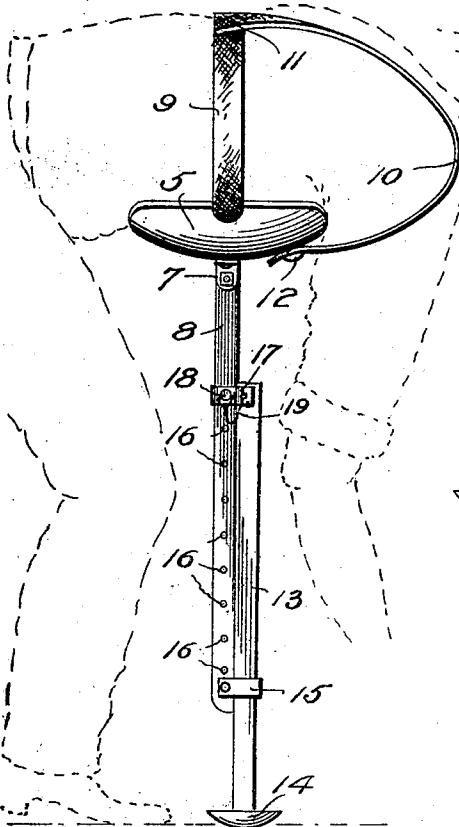


FIG. 3.

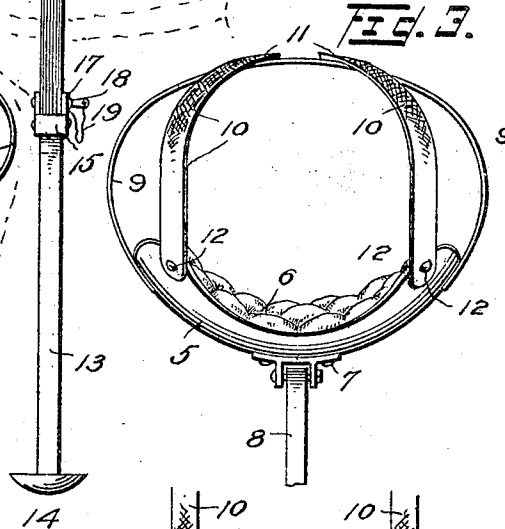
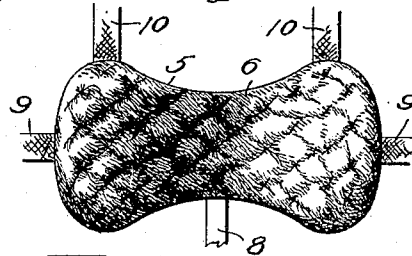


FIG. 4.



WITNESSES

E. C. Duffy

Philip E. Siggers

INVENTOR

R. E. Kelly

BY

E. G. Siggers

ATTORNEY

UNITED STATES PATENT OFFICE.

ROBERT EMMETT KELLY, OF JACKSONVILLE, FLORIDA.

BACK BRACE.

1,417,250.

Specification of Letters Patent. Patented May 23, 1922.

Application filed April 14, 1920. Serial No. 373,859.

To all whom it may concern:

Be it known that I, ROBERT E. KELLY, a citizen of the United States, residing at Jacksonville, in the county of Duval and State of Florida, have invented a new and useful Back Brace, of which the following is a specification.

This invention relates to braces or supports adapted to be carried by agricultural or other workers who must constantly bend over or stoop while laboring.

An object of the invention is to provide a simple and effective means for relieving the weight of the body upon the back muscles as the wearer bends over. A further object is to provide an easily constructed and comfortable back brace, or support, which engages with the ground in front of the feet of the wearer as he stoops. Another object is to provide in a back brace a breast plate shaped to conform to the bony structure of the chest of a human figure.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawing forming part of this specification, with the understanding, however, that the invention is not confined to any strict conformity with the showing in the drawing, but may be changed and modified so long as such changes and modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawing,

Fig. 1 is a front elevation of the device of the invention as shown applied to a human figure.

Fig. 2 is a side elevation of the same, the figure being depicted in stooping position and the post being contracted from the length of Fig. 1.

Fig. 3 is a plan view from the top of the breast plate and harness.

Fig. 4 is a fragmentary view showing the inner face of the breast plate and attendant parts.

The numeral 5 indicates the breast plate which may be of any suitable light, if strong, material as wood or metal, and which is properly shaped to conform to the bony structure of the chest of the human figure. The breast plate 5 is concave as seen best in Fig. 3, and is there provided with a pad or cushion 6 of any suitable material.

A harness for supporting the breast plate in proper position upon the body of the wearer is also provided. This harness includes a chest strap 9 which is preferably permanently secured to the ends of the breast plate and which may be of some elastic material so that the device may accommodate itself to various sizes of chests. The chest strap 9 is united at spaced points as 11 with shoulder straps 10. The free ends of the shoulder straps 10 are detachably connected any desirable way with the breast plate, such as a button and button-hole connection 12. The disconnection between the shoulder straps 10 and the breast plate may also be adjustable if desired.

At a point intermediate the ends and sides of the breast plate the yoke 7 is secured, which yoke holds a post 8 in pivotal relation to the breast plate. The pivot of the post 8 is so placed that the post will swing in a plane at right angles to the breast plate and transverse thereof. Thus, as the wearer stands erect, the post hangs downwardly in front of his body but when he stoops as indicated by Fig. 2 his back will be supported, the breast plate receiving the pressure of the post and transmitting it without discomfort to the strong chest muscles of the body. The post is pendently swingable from the breast plate, and assumes its inactive position against the front of the wearer when the latter is standing erect or walking, or its active position in contact with the ground when the operator stoops over.

The post 8 is provisioned for making its length extensible, though the particular means employed does not enter into the present invention. In the present case there is shown a rod 13 held by a loop 15 fixed upon the lower end of post 8 to the latter. The upper end of the rod 13 carries a loop 17 similar to loop 15 to further hold the post and rod together. The lower end of the rod 13 has an enlargement in the form of a button or flare end 14 which prevents the end of the rod from sinking deeply into soft earth. The post 8 has a series of spaced perforations 16 running throughout substantially the length thereof, which perforations are designed to receive a pin 18 passing through matching perforations in the loop 17. A wire or cord 19 united to the loop 17 and to the pin 18 will prevent the latter from being lost. It will be clear that when the effective length of the post,

which depends from the breast plate, is to be varied the wearer will slide the rod 13 with respect to the post 8 and will place the pin 18 into that perforation 16 which will give the desired length.

The principal features of the present invention are its extreme simplicity of construction, its adaptability to users of different stature, the comfort with which it may be worn and the inexpensiveness of its manufacture. Its use saves the wearer from many hours of back strain.

What is claimed is:

1. In combination, a breast plate, a post pivotally mounted on the front of the breast plate, and means for holding the breast plate in position on the chest of the wearer for supporting said post in a pendently swingable position from the chest, whereby when the wearer stands erect the post hangs downwardly in front of his body and when he stoops over the post will be swung out to contact with the ground.

2. In combination, a breast plate shaped to conform to the human figure, means for holding the breast plate in position against the chest of the wearer, and means pendently swingable from the outer face of the breast plate for engaging with the ground to support the body of the wearer in a forwardly inclined position, whereby when the wearer

stands erect, said means hangs downwardly in front of the body and when he stoops over said means will come in contact with the ground.

3. In combination, a breast plate shaped to conform to the human figure, a post pivotally mounted on the central portion of the breast plate to swing in a plane substantially at right angles to the breast plate and transversely thereof, and means for holding the breast plate in position, whereby the post hangs pendently from the breast plate and when the wearer is erect it occupies a position in front of his body and when he stoops over it contacts with the ground.

4. In combination, a breast plate shaped to conform to the human figure, a post pivotally mounted on the central portion of the breast plate to swing in a plane substantially at right angles to the breast plate and transversely thereof, and means for holding the breast plate in position, said holding means comprising a strap passing around the chest of the wearer and a pair of straps secured to the first strap at the back and detachably connected with the breast plate at the front.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature.

ROBERT EMMETT KELLY.