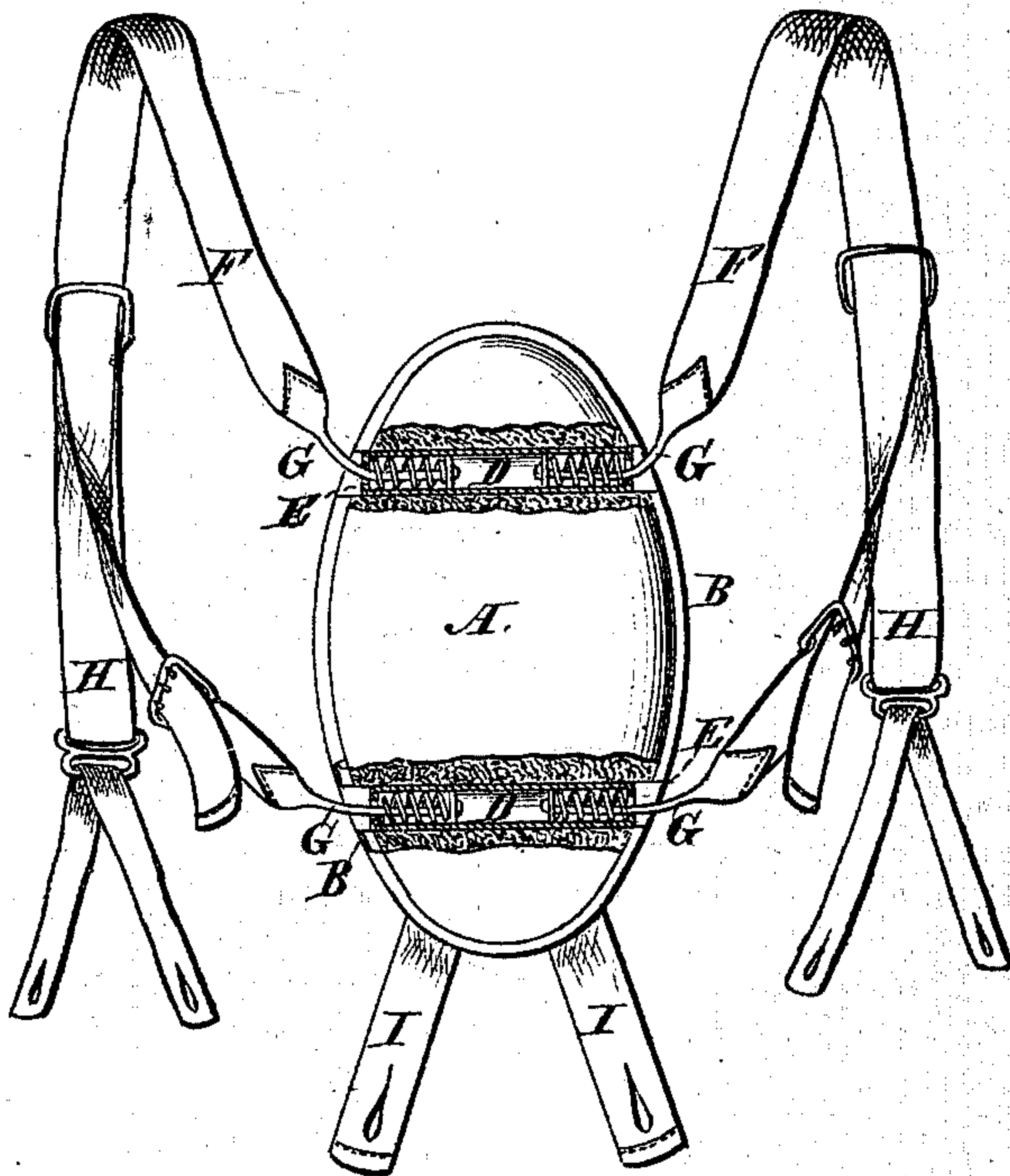


N. C. BURNAP.
Shoulder-Braces.

No. 139,366.

Patented May 27, 1873.



Witnesses.

Albert H. Norris.
Wm. J. Taylor.

Inventor.

Nelson C. Burnap.

By James L. Norris.
his attorney.

UNITED STATES PATENT OFFICE.

NELSON C. BURNAP, OF ARGUSVILLE, NEW YORK.

IMPROVEMENT IN SHOULDER-BRACES.

Specification forming part of Letters Patent No. **139,366**, dated May 27, 1873; application filed January 2, 1873.

To all whom it may concern:

Be it known that I, NELSON C. BURNAP, of Argusville, in the county of Schoharie and State of New York, have invented certain new and useful Improvements in Shoulder-Braces, of which the following is a specification:

This invention has for its object to furnish a shoulder-brace, which shall, while admitting a free movement of the arms and shoulders, serve to draw back the latter into a natural position, and also to support the spine. The invention consists in the employment of a spinal pad or disk, containing two pairs of horizontally-disposed spiral springs, which are connected with the ends of straps fitting over the shoulders of the wearer, as herein-after more fully set forth.

In the drawings, the figure represents a rear view of my shoulder-brace and the positions of the springs. The pad A, which may be of any desired external form, size, or configuration, is preferably formed of a metallic edge or strengthening-rim, B, to which is attached a cushion, formed of any suitable fabric, and a filling of wool, hair, &c. Extending transversely through the pad, near its upper and lower ends, are inserted metallic tubes or sockets D, which form seats for the reception of the spiral springs E. The shoulder or brace-straps F extend diagonally across the back of the wearer, and their ends or short straps, detachably applied to the same by buckles, possess stems G extending into the tubes D inserted into the pad. The spiral springs surround said stems, and are fitted between the end disks of the tube, and a nut or disk applied to the stem, as shown.

In certain cases it may be desirable to combine the brace with suspenders. For this purpose I attach the anterior straps H to the shoulder-straps, which are attached to the

garment for supporting the same in front, and posterior straps I are applied to the pad for supporting the garment in the rear. The straps I are generally retained for maintaining the pad in a firm position in relation to the spinal column of the wearer.

From the above description it will be perceived that the shoulder or brace straps, being connected with the spiral springs, which exert a continuous pressure in a direction toward the center of the body, said straps will have the tendency of drawing back the shoulders and imparting to them a natural position.

The action of the brace is in harmony with the muscles of the body; for, whatever be the inclination of the same, or motions of the shoulders or arms, it tends to assist the muscles in restoring an upright or vertical position.

The pad being located in proper relation to the spinal or vertebral column will serve as a support for the same; and, if sufficiently large, as a protective covering in diseases of the spine.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A shoulder-brace, in which are combined a pad, A, provided at its opposite ends with tubes D, inclosing spiral or other springs E, and straps F with their ends G passing through said springs and retained therein, substantially as and for the purpose herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand this 2d day of December, 1872.

NELSON C. BURNAP.

Witnesses:

A. H. NORRIS,
WM. J. PEYTON.