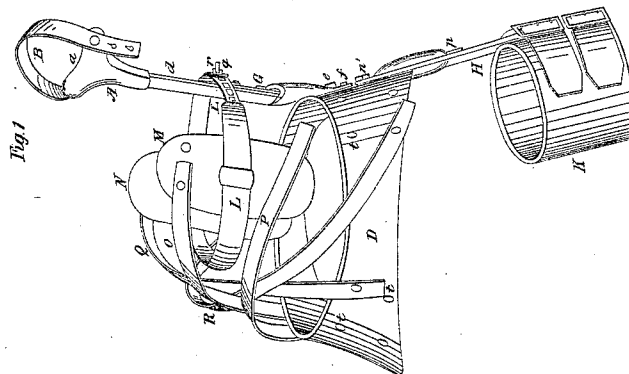
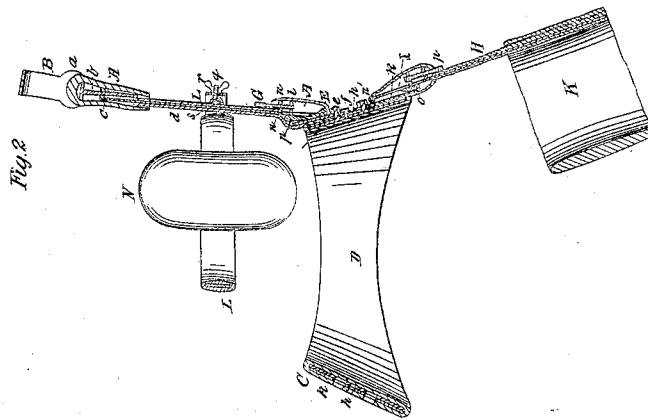
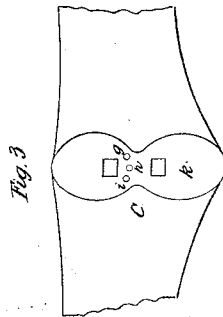


A. Abbe,
Hip and Spine Apparatus.
Patented July 5, 1853.

N^o 9,826.



UNITED STATES PATENT OFFICE.

ALANSON ABBÉ, OF BOSTON, MASSACHUSETTS.

INSTRUMENT FOR CORRECTING LATERAL DEVIATIONS OF THE SPINE.

Specification of Letters Patent No. 9,826, dated July 5, 1853.

To all whom it may concern:

Be it known that I, ALANSON ABBÉ, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new or improved instrument for correcting lateral deviations of the spine or preventing the dislocation of the hip in hip diseases, also for correcting and restoring the leg to its natural position after it has been displaced by the contraction of the muscles; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, letters, figures, and references thereof.

Of the said drawings, Figure 1, denotes a perspective elevation or view of my apparatus. Fig. 2, is a vertical and longitudinal section of it.

In the said drawings, A represents what I term the crutch, which consists of a stiff bar of metal, *d*, and a shoulder rest, *a*, fixed upon its upper end by means of a screw, *b*, extending down from it and through a projection, *c*, from the bar, *d*. The screw not only admits of a horizontal turning movement of the rest, *a*, but enables a person, to extend or diminish the length of the crutch at pleasure. The crutch has a shoulder strap, B, applied to its upper part, so as to pass over the shoulder of the wearer, when the rest, *a*, is placed against his axilla or arm pit. The strap is confined to one end of the rest, *a*, and is made to button upon the other end of it.

C, is a strong plate of steel inclosed in a stuffed belt, D, which is made to buckle or fasten firmly around the hips of the wearer. The lower end of the crutch, A, is hinged to a plate E, which is fastened by two screws, *e*, *f*, to the plate C. The crutch plate, E, turns on the upper screw *e*, when the lower one is removed from the band C. There are three screw holes, *g*, *h*, *i*, made in the band C, or a piece of metal, *k*, projected therefrom, all as seen in Fig. 3, the screw holes being arranged with their centers in the arc of a circle whose center is in the axis of the screw, *e*. This enables the screw, *f*, to be inserted in either of the said screw holes, in order to adjust the crutch to the proper angle forward or backward, with respect to the band, C, or belt D.

The crutch is hinged to the outer face of the plate, E, and so as to allow the said plate, to extend upward (for about two-thirds of its length,) in rear of the crutch.

Between the crutch and the part of the plate E, so extended upward there is a wedge, F, which has a projection, *l*, extended from it and through a long slot, *m*, made through the crutch. A screw G, is connected at one end, with this projection so as to be capable of being revolved, but in other respects, to be so affixed to the projection, that when it (the screw) is revolved, while screwed through another projection, *n*, fixed to the crutch it shall move the wedge up or down between the crutch and the plate E, and thereby enable a person to adjust the lateral deflection of the crutch, to the belt, D.

Below the crutch and from the band, C, there is a lever or bar, H, that extends downward from the belt. This lever or bar, H, is hinged at its upper end to a turning plate I, which turns freely back and forth on a screw, *n'*, fixed in the band, C. The hinge of the bar is so arranged as to allow of a lateral movement of the bar, toward or from, the leg of the wearer, down on and against the outside of whose thigh, the bar is to lay, and be fastened to the thigh by a broad padded strap, K, that is affixed to its lower part, and has buckles and straps, or other suitable means of fastening it to the leg. The said bar, H, and its turning plate, I, have a wedge, *o*, and an adjusting screw, *p*, applied to them in similar manner, as those herein before described are applied to the crutch and the plate, E.

L is an elastic steel band suitably incased by a padded cover of leather. To this band two stuffed pads, M, N, are applied and made to slide on the band, in order that their position may be properly adjusted. The two ends of the steel band lap on each other and are connected by means of a screw *q*, nut, *r*, and universal or ball joint, *s*, with the crutch.

Each of the pads M, N, is provided with two or more straps, O, P, or Q, R, which after being buttoned to it are carried around the body in any convenient and proper directions, and buttoned upon the support belt, there being any suitable number of buttons or studs, *t*, *t*, &c., fixed on the belt, or made to project from the plate, C, for such purpose. The plate, C, and its belt may be so made, as to enable the crutch, A, and the lever or bar H, to be applied to either side of a person.

In the application of this instrument, the belt, D, is to be firmly secured around the

hips, and the crutch placed in the axilla, and secured to the shoulder and the body by the shoulder straps and the steel band L, the pads M, N, and their straps. After adjusting the lever or bar H, to its correct position, the thigh is moved up to it, and confined to it by the padded strap attached to its lower end.

Whenever during the correction of the deflection of the thigh from its natural or true position it may be desirable to bring the lever H, outward or laterally, at a greater angle, a key may be applied to the screw, *p*, so as to move the wedge, *o*, upward. This instrument may be worn with ease by a person while either in a sitting or standing position, the pads, M, N, being made to rest on the prominent points of the back and chest. By means of the adjusting screws, we are enabled to throw the center of gravity of the body directly over the foot of the leg to

which the instrument is applied, and thereby we insure the correction of the spinal or thigh deflection.

I claim—

The above described instrument, as made of a combination of the crutch, A, the hip plate, C, the plates E, I, the wedges and screws thereof—the breast or body band L, and its pads, and straps or other contrivances for confining the whole instrument to the thigh and body, the whole being applied together and made to operate substantially in manner, and for the purpose as specified.

In testimony whereof I have hereto set my signature this fourteenth day of December A. D. 1852.

ALANSON ABBÉ.

Witnesses:

R. H. EDDY,
JOHN NOBLE.