(No Model.)

K. OLSEN.

CRUTCH.

No. 457,519. Patented Aug. 11, 1891.

Fig. 1.

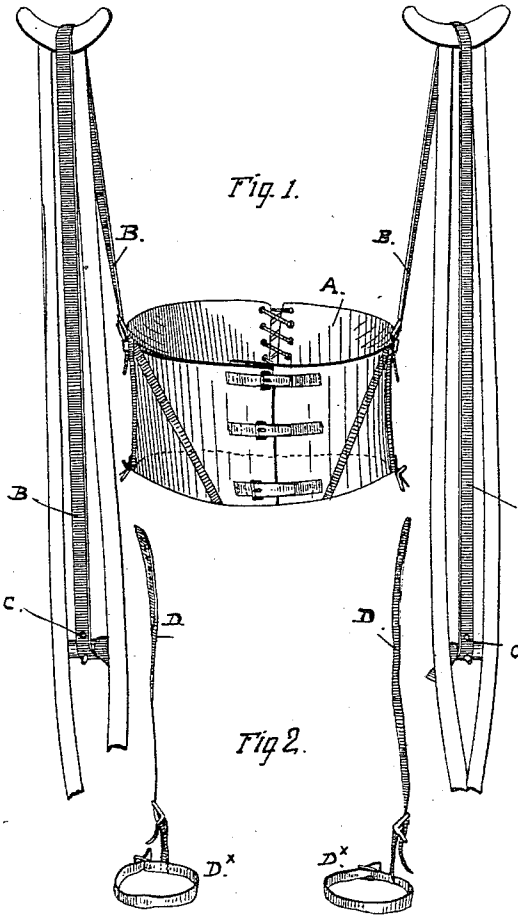


Fig. 4.

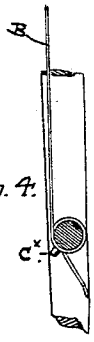


Fig. 3.

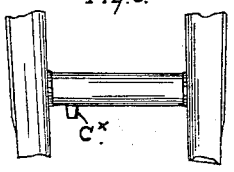
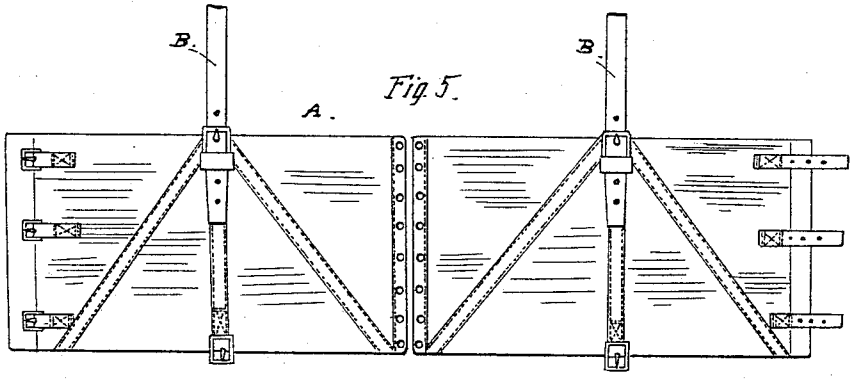


Fig. 2.

Fig. 5.



Witnesses:
E. Patten
A. Charlot

Inventor:
Klaus Olsen
By Dewitt & Osborn
Attys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

KLAUS OLSEN, OF SAN FRANCISCO, CALIFORNIA.

CRUTCH.

SPECIFICATION forming part of Letters Patent No. 457,519, dated August 11, 1891.

Application filed January 14, 1891. Serial No. 377,765. (No model.)

To all whom it may concern:

Be it known that I, KLAUS OLSEN, a subject of the King of Norway, residing in the city and county of San Francisco, State of California, have invented an improved Body-Supporting Attachment to Crutches, of which the following is a specification.

My invention has for its object to provide a body suspending or supporting attachment to crutches to take the direct weight of the body from the arms of the wearer and to relieve the armpits from the thrust and pressure of the crutches. The pressure of the arm-piece of a crutch against the armpit of a person using crutches is liable to affect the arms, often permanently setting the shoulders out of shape, and is sometimes the cause of paralysis. To relieve the arms from this thrust and pressure, I provide a corset or bandage or belt to be fastened around the body below the arms, with a strap at each side to extend upward over the arm-piece of the crutch, and by some fastening means I attach the ends of these straps to the crutches in such manner that when the corset or bandage is secured around the waist and the straps are fastened to the crutches the weight of the wearer's body will be thrown mainly upon the straps and by them will be transferred to the crutches.

To such end and object my invention consists in a corset or bandage or belt adapted to be secured around the body below the arms and having side straps extending up the sides to the armpits, of suitable length to pass over the top of the arm-piece and to be attached to the crutches, substantially as hereinafter explained.

The manner in which I produce and apply my said invention is set forth in the following description, the accompanying drawings being referred to therein by letters.

Figure 1 is a view of the apparatus or attachment fastened to the crutches. Fig. 2 represents supplemental leg-straps or suspenders for use in some cases. Fig. 3 illustrates one mode of attaching the body-suspending straps to the crutches. Fig. 4 is a cross-section through Fig. 3, and Fig. 5 is a view of the waistband or corset.

A indicates the corset, bandage, or belt adapted to be fastened around the body of the wearer. It is provided with straps and buckles or some other convenient form of fastening that permits it to be readily put on and taken off. The body of this corset can be made of any light fabric, to which the buckles for the straps are secured in place at the sides. Stay-pieces are applied diagonally from the bottom edge to the top for strength.

B B are side straps attached to the part A under the arms and of suitable length to extend upward to and over the arm-piece of the crutches. An eye C in the strap and a pin or stud $C^{\times}$, fixed in the crutch on the outer side, form a simple means of attaching the end of the strap B to the crutch; but any other fastening that can be quickly attached and detached by the wearer can be used in place of this fastening C $C^{\times}$.

The strap B is attached to the crutch and down on the outer side to a cross-bar below the arm-piece, such as the cross-bar provided for the hand. The length of these straps should be adjustable, so that the weight of the body shall be brought mainly upon the straps when the armpits rest on the arm-pieces of the crutches, and for such purpose the straps are fastened to the corset by buckles.

Supplementary leg-straps D D, to be used in some cases, are provided to take the upward pull or strain of the side straps from the corset. These can be applied to advantage upon heavy or fleshy persons, where the corset cannot be buckled tightly around the person without discomfort; but in many cases their use will be found unnecessary.

It should be mentioned that when this device is applied to the person the corset is put under the waistcoat or the outer garment, and the straps are passed up to the armpits and down through the sleeves of the outer garment, where they are brought out at the wrist and attached to the cross-bars of the crutch.

If the shorter straps to be attached to the crutch at the top or arm-piece are used, it is necessary to provide an opening in the outer garment, through which the strap is brought to the outside and attached to the crutch.

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

1. A body-supporting attachment for

crutches, consisting of a corset and a body bandage or belt adapted to be fastened around the body, having side straps which extend upward to the armpits and are attached to the crutches, substantially as described.

2. A body-supporting attachment to crutches, having a corset, body bandage or belt, and suspending-straps which are attached to the crutches at the hand cross-pieces and extending thence upward over the arm-pieces and downward to the corset, to which they are fastened, substantially as described.

3. In combination with a pair of crutches, a corset, body bandage or belt A, and suspending-straps B B, secured to the parts A at the sides, and fastening means consisting of an eye in the strap and a pin or stud on the crutch.

4. In combination with a corset, body bandage or belt A, the crutch-straps B B, and the leg-straps D D, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

KLAUS OLSEN. [L. S.]

Witnesses:
C. W. M. SMITH,
H. J. LANG.