No. 721,239. PATENTED FEB. 24, 1903.

J. F. ROWLEY.

STUMP PROTECTOR.

APPLICATION FILED JULY 21, 1902.

NO MODEL.

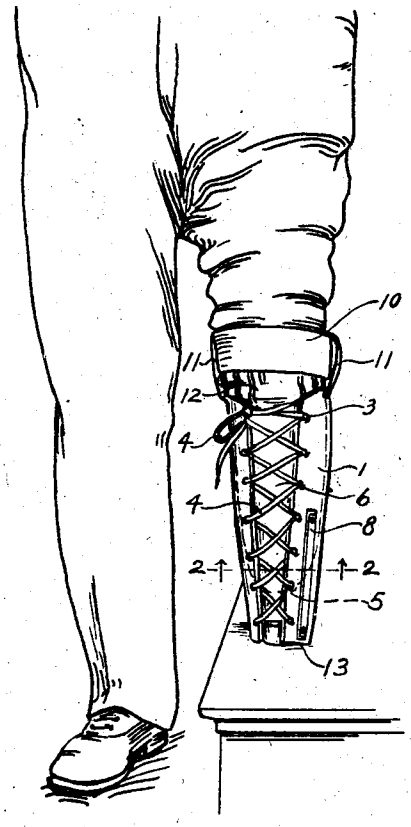


Fig. 1.

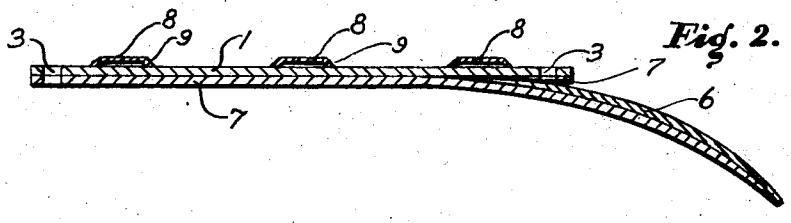


Fig. 2.

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

UNITED STATES PATENT OFFICE.

JAMES F. ROWLEY, OF CHICAGO, ILLINOIS.

STUMP-PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 721,239, dated February 24, 1903.

Application filed July 21, 1902. Serial No. 116,404. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. ROWLEY, a citizen of the United States of America, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Stump-Protectors, of which the following is a specification.

The main objects of my invention are to provide improved means for reducing the size of the stump of an amputated limb and for protecting said stump against injury before same is in condition to be fitted with an artificial limb. I accomplish these objects by the device shown in the accompanying drawings, in which—

Figure 1 is an elevation of a device constructed according to my invention, showing same applied to the stump of the lower part of the leg of the patient. Fig. 2 is a transverse section of the same along the line 2 2 of Fig. 1, showing the protector straightened out to illustrate its construction.

The device shown is constructed as follows: The body part 1 is formed of stout leather to fit the stump of the wearer and extends a considerable distance beyond the end of said stump. The body part 1 is open along the front and has its free edges provided with eyelets 3. The eyelets 3 are suitably located to receive the lacing-thongs 4, by means of which the body part 1 is caused to tightly fit the stump of the wearer. The lower end of the stump is indicated by the dotted line 5 in Fig. 1. A tongue 6, of the same material as the body part 1, is secured to same along one edge, and the entire interior surface of both the body part and the tongue 6 is lined with a layer 7 of soft material. The lower part of the protector is reinforced by a plurality of stiffening-strips 8, which extend longitudinally of same. The stiffening-strips 8 are preferably formed of sheet metal pressed to the form shown. The flanged edges 9 extend around all sides of said strips and serve to strengthen said strips against bending. The upper end of the body part 1 is secured to a suspender 10 by means of the straps 11. The suspender 10 is made in the form of a band secured around the leg above the knee in cases where amputation has been below the knee, and in cases of amputation above the knee the suspender 10 is preferably secured over the shoulders of the wearer.

The operation of the device shown is as follows: After a leg has been amputated and before an artificial leg is to be fitted in its place it is desirable to reduce the diameter of the stump-leg as much as possible by causing the absorption of superfluous fatty tissues before fitting an artificial leg to said stump. The stump is properly bandaged and inclosed in a woolen stocking, which stocking is shown at 12 in Fig. 1, and is finally incased in the protector 1. The laces 4 are now drawn over, so as to cause the body part 1 of the protector to accurately fit the stump and its coverings, the suspender 10 serving to prevent the protector from moving downward along the stump. The protector 1 is so applied to the stump that the lower end 13 of the protector will project a considerable distance beyond the lower end 5 of the stump. The lower end of the protector is open to the air, as shown, thus preventing undue heating and consequent inflammation of the stump. The stockings 12 commonly used for covering the stump are of woven porous texture. The stiffening-strips 8 prevent the protector from being bent inward and give local strength to the lower part of the protector. When the wearer rests his weight upon the protector, or, in case of a fall, when the stump is instinctively put forward, the stiffeners carry the strain upward toward the upper part of the stump, and thereby prevent the possibility of injury to the tender end of same. The lacing provides for gradually reducing the diameter of the stump, and the tight fit of the protector prevents the accumulation of soft fatty tissue and the consequent enlargement of the stump. When the stump can no longer be reduced by tight bandaging, it is ready for the application of an artificial limb.

It will be seen that some of the details of the device shown may be altered without departing from the spirit of my invention. I therefore do not confine myself to such details except as hereinafter limited in the claims.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A stump-protector, comprising a body of pliable material adapted to be laced around

the stump of an amputated limb, said body being widest at its upper part and adapted to be left open to permit the entrance of air at its lower part, and being provided with a plurality of strips of stiff material extending upwardly from the lower end of said body, said strips being adapted to hold the lower end of said body open to the air, and being adapted, in case of contact of said lower end with an outer object, to carry the strain of such contact above and free from the lower end of said stump, substantially as described.

2. A stump-protector, comprising a body of pliable material adapted to be laced to the end of the stump of an amputated limb, and a plurality of stiffening-strips extending longitudinally of said body and rigidly fastened to same, said strips being formed of sheet metal curved inwardly along its edges to strengthen same, substantially as and for the purpose specified.

Signed at Chicago this 15th day of July, 1902.

JAMES F. ROWLEY.

Witnesses:
E. C. MOORE,
WM. R. RUMMLER.