M. KELLY.

CORN-SHIELD.

No. 170,478. Patented Nov. 30, 1875.

Fig: 1.

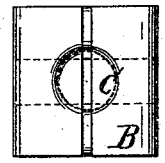
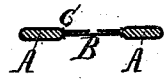


Fig: 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

MICHAEL KELLY, OF NEW YORK, N. Y.

IMPROVEMENT IN CORN-SHIELDS.

Specification forming part of Letters Patent No. **170,478**, dated November 30, 1875; application filed October 28, 1875.

To all whom it may concern:

Be it known that I, MICHAEL KELLY, of New York city, in the State of New York, have invented Improvements relating to Pads, more particularly intended for use on the feet for the relief of corns, of which the following is a specification:

The ordinary pads of felt and analogous material, provided with an adhesive coating on one side, are liable to be either so soft as to soon flatten down too thin, or so hard as to be difficult to conform to the shape of the part. Among other difficulties incident to their use is the sometimes serious one, when the morbid growth forming the corn and the tender parts under it become pushed out too far through the open hole in the pad.

In what I consider the best means of carrying out the invention, I take ordinary white soap, and slice it to a desired thickness, and cut or punch a proper hole in the center of a small piece, preferably of square exterior. Having this at a proper temperature and moisture to make it semi-plastic, I wrap it in thin oil-silk, extending the silk not only along both surfaces, and over the outer edges, of the soap, but also one or more thicknesses across the central opening; then a line of stitching with the sewing-machine just within the aperture prevents the soap from gushing inward under any pressure. The folds should be all on one face, and that face should be that which is applied to the foot. I have in my experiments used successfully either oil-silk, or what is known in the trade as imitation oil-silk. I find either is sufficiently adhesive, either naturally or by the soap which gets upon it during the treatment, to adhere on the foot. The confining of the soap on both faces, and on both its outer and inner edges, prevents it from gushing away. It is important, perhaps I may say essential, that the pads be kept in a damp condition until they are ready to be applied to the foot, or, if allowed to become too dry and hard, they must be softened by dipping in warm or moderately hot water.

I propose to pack the pads in wide-mouthed bottles, or analogous cases, tightly stopped. I prefer to put six, or some other small number, in a small box, stamped upon sheet-brass, tinned iron, or the like, and to put a number of such boxes in the tightly-sealed jar. It is well to put also into the bottle a bit of wet sponge, to supply the slight evaporation which takes place, even from tightly-stopped bottles. I propose to wet the sponge with a solution of alcohol and water to better preserve against mold and the like.

I believe the pads may be successfully made with stearine, tallow, beesewax, and other analogous plastic or semi-plastic material, including the compounds of glue and sugar, with or without glycerine, used in the composition of printer's rollers, and also the various gums and semi-resinous matters, which possess the required mechanical constitution, and are not deleterious to the flesh. I propose also to use for the enveloping material not only oil-silk and imitations thereof, but oil-paper and various fabrics and tissues, which possess, either naturally or can be made to possess, the desired adhesive qualities. I also propose, instead of folding the enveloping material around the outer edge, to sometimes sew two thicknesses together by a line of stitches along the outer edges, and in such cases, or in any case, I can make the exterior of other forms than square. Many may prefer the ordinary circular form. I believe it is practicable to use other means of fastening than by stitches, but I know of none so strong and uniformly reliable.

The accompanying drawings form a part of this specification, and represent what I consider the simplest, and, probably, the best, means of putting the invention in practice.

Figure 1 is a plan view, and Fig. 2 is a sectional view.

In the figures, A represents the soap or analogous semi-plastic material. B represents the oil-silk or analogous adhesive or strong covering envelope, and C a line of stitching or analogous fastening, which binds one or both the edges.

I can realize some of the advantages of the invention by omitting the extension of the envelope across the central aperture; but I prefer, for general use, the extension across, as shown. It allows the corn and the tender flesh under it to protrude a little, sufficiently to relieve it completely from the pressure of the boot, and yet restrains its bulging too far,

and by suppressing and by covering the part, and retaining the perspiration, induces the best conditions for regaining the normal healthy state. The extension of the envelope across the center of the pad also greatly strengthens the pad, and prevents its becoming distorted by spreading. The plastic or semi-plastic condition of the main material A allows the pad to assume different thicknesses on different parts of the area, and my pads produce an effect which is far superior to any thing I have been able to procure.

The pads heretofore known have, to a great extent, forced the flesh to conform to the shape of the pad. These pads, while exerting a sufficient pressure to afford an abutment around the corn, yield and adapt themselves to the shape of the part, and to the inequalities of the pressure of the shoe or boot on different parts thereof.

I claim as my invention—

1. An annular pad, having a body of soap or other plastic or semi-plastic material, and having a covering envelope of oiled silk entirely inclosing the same, substantially as set forth.

2. A pad, having a rim of soft material, A, and a thin extension or webbing across the central space, and an envelope, B, entirely covering the material A, as herein specified.

3. The within-described pad of soap or analogous semi-plastic material, completely enveloped in strong and adhesive tissue or covering, with the stitching, gluing, or analogous confining means C, as herein specified.

In testimony whereof I have hereunto set my hand.

MICHAEL KELLY.

Witnesses:
PHILLIPS ABBOTT,
H. CLAY SMITH.