

(No Model.)

C. LANGBEIN.
CORN REMOVING KNIFE.

No. 376,320.

Patented Jan. 10, 1888.

Fig. 1.

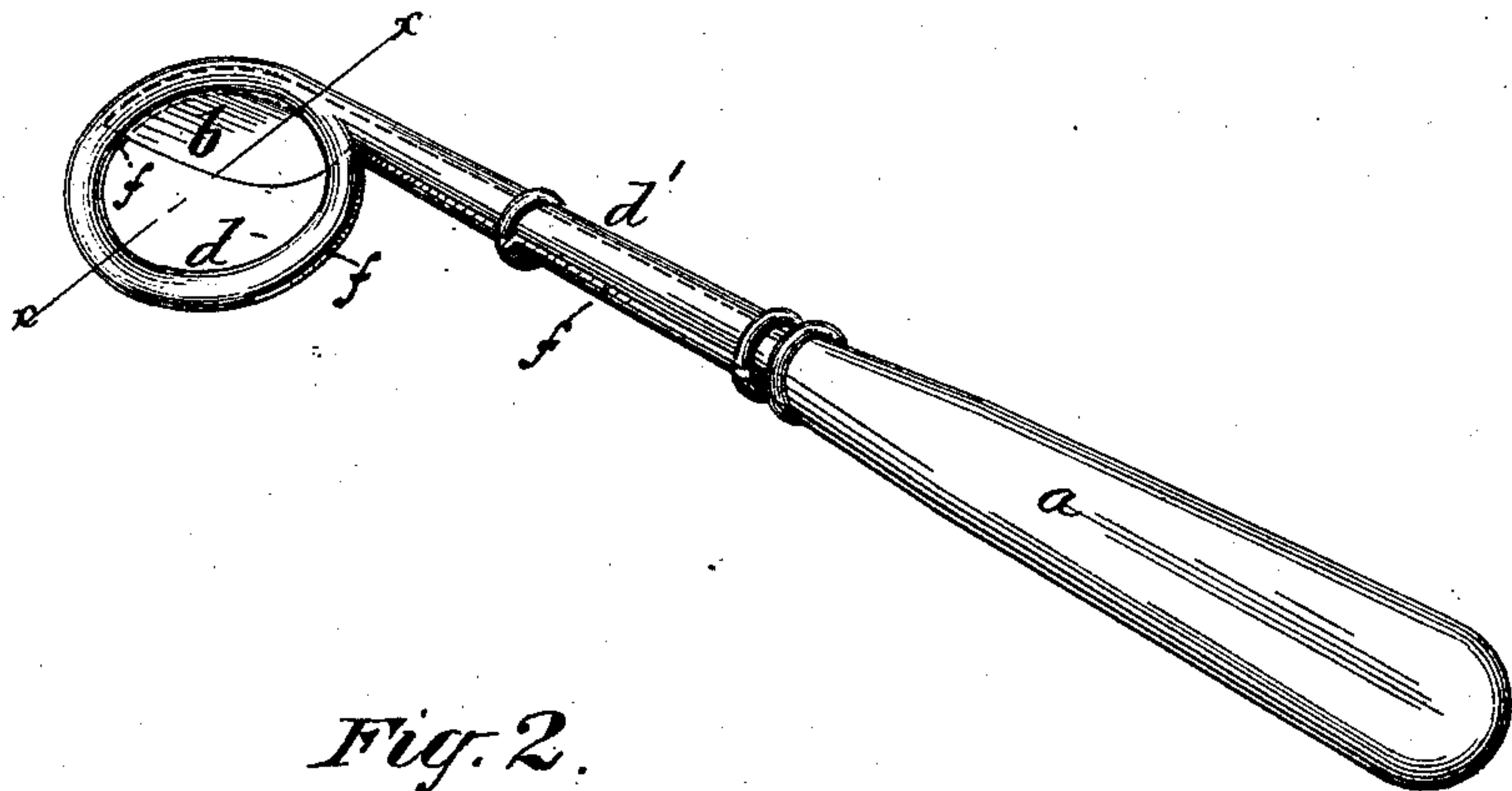


Fig. 2.

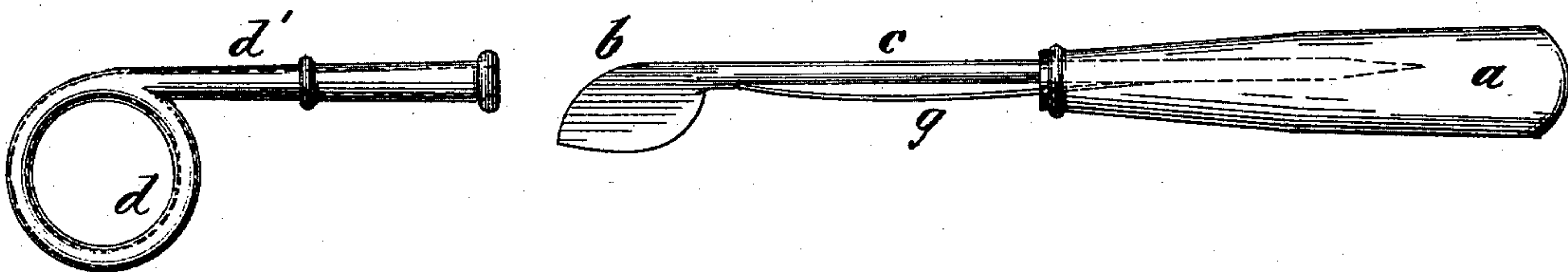


Fig. 3.

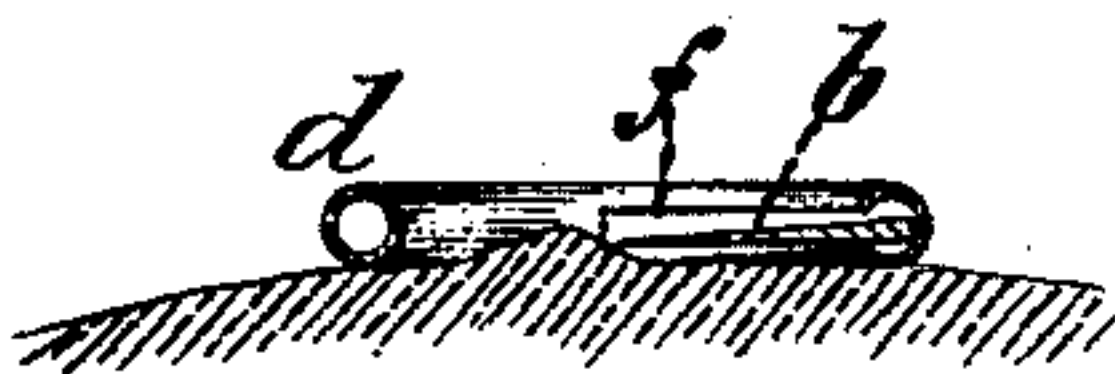
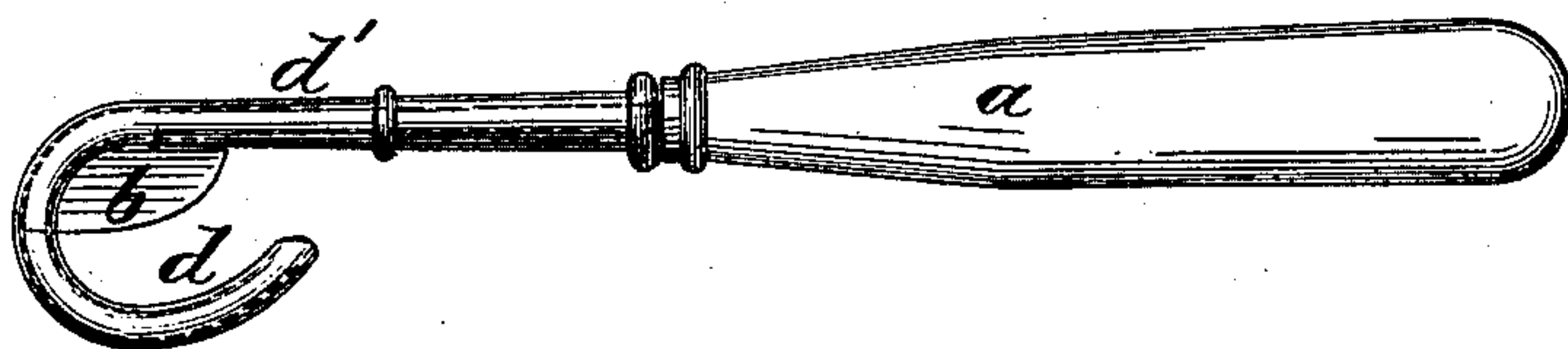


Fig. 4.



WITNESSES

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CORN-REMOVING KNIFE.

SPECIFICATION forming part of Letters Patent No. 376,320, dated January 10, 1888.

Application filed October 11, 1886. Serial No. 215,961. (No model.)

To all whom it may concern:

Be it known that I, CHARLES LANGBEIN, of Brooklyn, Kings county, New York, have invented certain new and useful Improvements in Knives for Removing Corns and for Similar Purposes, of which the following is a specification.

The object of my invention is to provide an effective and simple form of knife or lance for paring corns, removing warts, or similar cuticular operations, which can be used with safety and facility by ordinary persons without requiring any surgical skill and without danger of cutting too deeply or injuriously.

To this end my invention may be briefly stated to consist in the special form of the guard and in making it tubular or sheath-like to slip onto or off from the knife-blade, as hereinafter fully set forth.

In the annexed drawings, Figure 1 gives a perspective view of my improved corn-knife fitted for use. Fig. 2 is a longitudinal elevation showing the looped guard removed from the blade. Fig. 3 is a cross-section on *xx*, illustrating the action of the guard and blade. Fig. 4 shows a modification.

Referring to Figs. 1 and 2, *a* indicates the handle of the knife, and *b* the blade, which has a long slender tang, *c*, which is secured in the handle, as shown. The blade *b* is preferably of a flat, oval, or leaf shaped form, the cutting-edge being preferably a convex curve, as shown, and this blade is encircled or partly encircled by a loop or guard, *d*, preferably of perfect annular form, so that the edge of the blade lies within the same in the position of the chord of a circle, or rather the concave of a crescent, as well shown in Fig. 1. The guard or loop *d* is also preferably circular in cross-section, as seen in Fig. 3, so that it is thus a perfect annulus, and is made of a slender thickness, with the knife-blade lying in the middle of said thickness or within the level of the outer planes of said annulus, as seen in Fig. 3.

The guard *d* is preferably made with a tubular shank, *d'*, which slips sheath-like over the tang of the blade, and is slit along the front, as seen at *f* in Fig. 1, which slit *f* is continued through the portion of the annular guard *d* coincident with the blade *b*, so as to thus allow the guard to be slipped off or on, as illus-

trated in Figs. 1 and 2. When the guard is slipped onto the blade, a slender bow spring, *g*, which is fixed at the handle end of the tang and projects along the tang, will press on the shank of the guard with sufficient frictional grasp to hold it securely in place upon the knife, as seen in Fig. 1. The guard, which is thus made in the form of a figure 9, is therefore hollow or tubular throughout, and is preferably stamped from sheet metal in two half-tubular shells or bisections, which are soldered together, the edges on one side being left separate to form the slot *f*, as seen in Fig. 1. It will therefore be now understood by referring to Figs. 1 and 3 that when the instrument is used the loop or guard is placed flatly on the skin around the corn or other excrescence to be removed, as seen in Fig. 3, which will present the knife-blade in a plane parallel with and very close to the skin and at the base of the excrescence, and by now moving the knife with a paring action over the skin the excrescence may be readily pared off and removed without any danger of cutting in too deeply or irregularly or making any dangerous incision into the sensitive layers beneath, as would be likely to happen with an unguarded blade in an unskilled hand. Hence by this means persons afflicted with corns, callosities, or other excrescences on the skin may pare off or remove the same themselves whenever required without danger of injury and without requiring any special skill in handling a lance—a result which has been very desirable heretofore.

It will be noted on reference to Figs. 1 and 3 that the blade and its encircling guard or loop is the same on both upper and under sides, so that either side or face may be turned upon the skin and used to cut either toward the right or left, as will be readily perceived.

The slot *f* in the annular portion of the guard in which the blade *b* lies is made sufficiently wider than the blade, as seen in Fig. 3, so as to allow a slight tilting play to the blade in the slot, so that when the guard is pressed on the skin and the knife moved to its work the blade will be tilted at a slight angle to the skin, so as to cut more closely and effectively, yet without danger of cutting too deeply. I prefer, as shown, to make the cutting-edge of the blade convex or crescent-like, as the blade will act

with more of a draw cut and work more gradually and effectively on the corn than would be the case with a straight blade.

It is not, of course, necessary that the guard or loop entirely encircle the blade, as it may only partly encircle it, as shown in Fig. 4, which represents one of many of such modifications that may be made without departing from the essentials of my invention.

The guard may be attached to and removed from the blade in different ways from that shown without departing from the main feature of my invention; or, if desired, it may be fixed permanently on the blade.

What I claim is—

1. In combination with a knife or lance, a separate removable protecting loop-shaped guard extending around or encircling the cutting-edge of the blade in advance of the same, and made of slender thickness, with the blade in the mid-

dle of said thickness, or nearly so, and having a bearing-face on both sides, so that either side may be pressed on the skin and moved either to the right or left, substantially as set forth.

2. In combination with a knife or lance, a looped guard, *d*, adapted to encircle the cutting-edge of the blade in advance thereof, and formed with a tubular shank, *d'*, adapted to slip over the tang of the blade, substantially as shown and described.

3. The combination, in a knife or lance, with the blade *b*, tang *c*, and spring *g*, of the looped guard *d*, having the tubular stem *d'* to slip over the tang and spring, substantially as set forth.

CHARLES LANGBEIN.

Witnesses:

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