

(No Model.)

N. P. NIELSEN.
KNIFE.

No. 477,817.

Patented June 28, 1892.

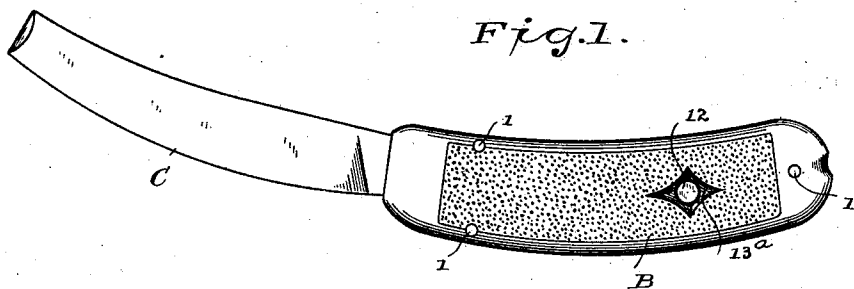


Fig. 3.

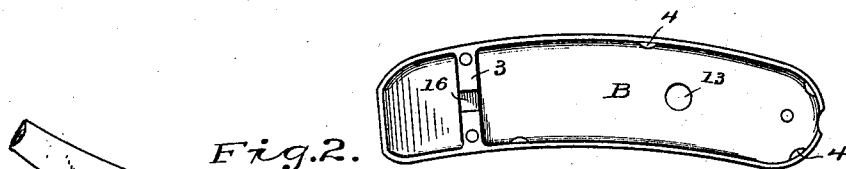


Fig. 2.

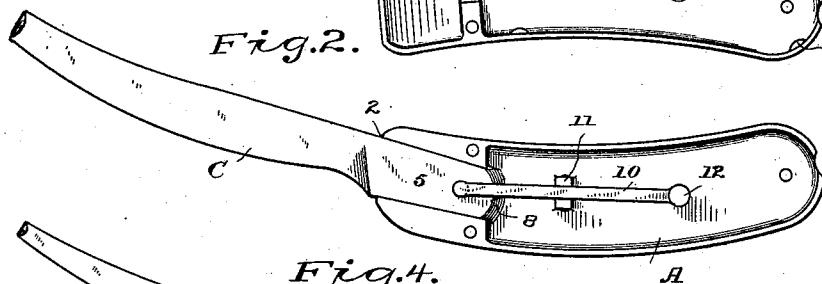


Fig. 4.

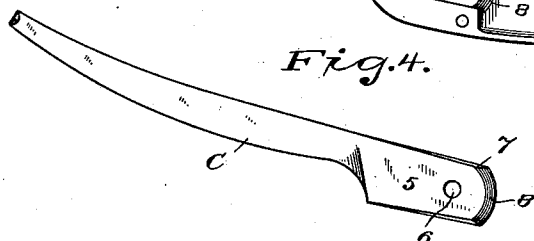
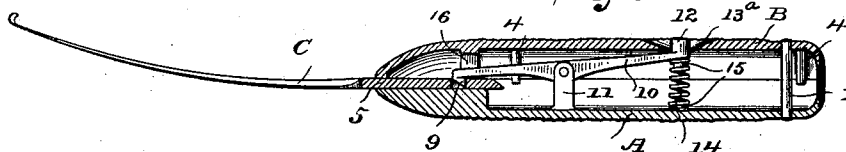


Fig. 5.



WITNESSES

H. A. Lamb
M. A. Huggard

INVENTOR

Niels P. Nielsen
By J. M. Proctor
att

UNITED STATES PATENT OFFICE.

NIELS P. NIELSEN, OF TERRE HAUTE, INDIANA.

KNIFE.

SPECIFICATION forming part of Letters Patent No. 477,817, dated June 28, 1892.

Application filed March 25, 1892. Serial No. 426,346. (No model.)

To all whom it may concern:

Be it known that I, NIELS P. NIELSEN, a citizen of the United States, residing at Terre Haute, in the county of Vigo and State of Indiana, have invented certain new and useful Improvements in Horseshoeing-Knives; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to the class of knives illustrated and described in my former Letters Patent, No. 443,534, dated December 30, 1890, and has for its object to cheapen and improve the construction therein set forth, my present invention being a simplifying and carrying forward of the idea disclosed in my said former patent.

With these ends in view I have devised the novel construction which I will now describe, referring by letters and numbers to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a view of my novel knife, a blade being locked in position in the handle; Fig. 2, a view in the position shown in Fig. 1, the outer half of the handle being removed and the blade being of a different size from that in Fig. 1; Fig. 3, a view of the outer half of the handle, as shown in Fig. 1, inverted; Fig. 4, a view of the smallest-sized blade detached; and Fig. 5 is a longitudinal section of the knife complete, showing the manner in which a blade is locked in position.

A and B denote the two halves of the handle, which in practice are preferably cast, and are held together by rivets 1. Part A of the handle is provided with an outwardly-flaring socket 2, adapted to receive the tang of a blade, said socket being preferably undercut at the sides to form ways, as indicated in Fig. 2, so that in practice the blade is held firmly in position by the solid metal of part A which surrounds the socket. Part B of the handle is a mere shell, being made as light as is consistent with the proper amount of strength, a cross-piece 3 being provided at the point where the rivets pass through, so as to give the greatest possible strength to this portion

of the knife. Part B of the handle is also provided with lugs 4, which engage the inner side of part A and act to take strain from the rivets by preventing lateral displacement of the two parts of the handle.

C denotes the blades which are preferably made in three sizes, as shown in the drawings. The blades are all provided with tangs 5, having openings 6 through them. The edges of the tangs are beveled, as at 7, to engage the undercut ways in part A of the handle, the inner ends of the tangs being provided with rounded bevels 8, the purpose of which will presently be fully explained.

9 denotes a bevel-nosed catch at the forward end of a lever 10, pivoted in a hub 11 on the inner side of part A of the handle. At the other end of the lever is a finger-piece 12, which extends through an opening 13 in part B of the handle, the outer side of said opening being countersunk, as at 13^a, (see Figs. 1 and 5), so as to permit the operator to move the finger-piece freely, while at the same time the finger-piece shall not project beyond the surface of the handle. In practice I make the countersink of suitable shape to permit the thumb-nail to be used to push in the finger-piece, the nail passing into the angular portions, which are clearly shown in Fig. 1. Catch 9 is held in the engaging position and the finger-piece in a position to be engaged by the finger by means of a spring 14, one end of which bears against the lever, the other against part A on the handle, the ends of the spring being secured to lugs 15 upon the lever and the handle. Cross-piece 3 in part B of the handle is provided with a groove 16, in which the lever moves freely.

The operation in use will be clearly understood from Figs. 2 and 5. To remove a blade, the operator pushes the finger downward, which lifts catch 9 out of the opening 6 in the tang of the blade and permits the blade to be readily withdrawn. Blades are inserted by simply pushing them inward to place, the rounded bevel 8 at the base of the tang engaging the bevel-nosed catch, raising the catch, and permitting the blade to slide under it until the catch reaches opening 6 in the tang, into which it will be instantly forced by the

spring, the inner edge of the catch being a straight wall, which engages the side of the opening and locks the blade in position against the possibility of removal until the lever is operated by pushing in the finger-piece.

Having thus described my invention, I claim—

The combination, with a blade, the tang of which is provided with an opening through it and is beveled at its sides and base, of a two-part handle, one part of which is provided with an undercut socket to receive the han-

dle, and a spring-actuated lever pivoted in a hub, one end of said lever being provided with a bevel-nosed catch adapted to ride up the bevel at the base of the tang and engage the opening, the other end being provided with a finger-piece which passes through an opening in the other side of the handle.

In testimony whereof I affix my signature in presence of two witnesses.

NIELS P. NIELSEN.

Witnesses:

HORACE M. SMITH,
GEORGE W. HOFFMAN.