

(No Model.)

W. V. BARCLAY.
KNIFE.

No. 437,325.

Patented Sept. 30, 1890.

Fig. 1.

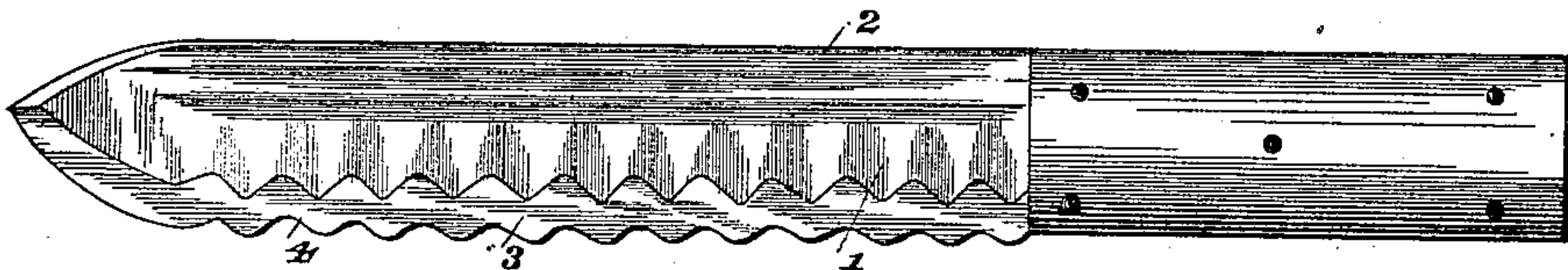


Fig. 2.

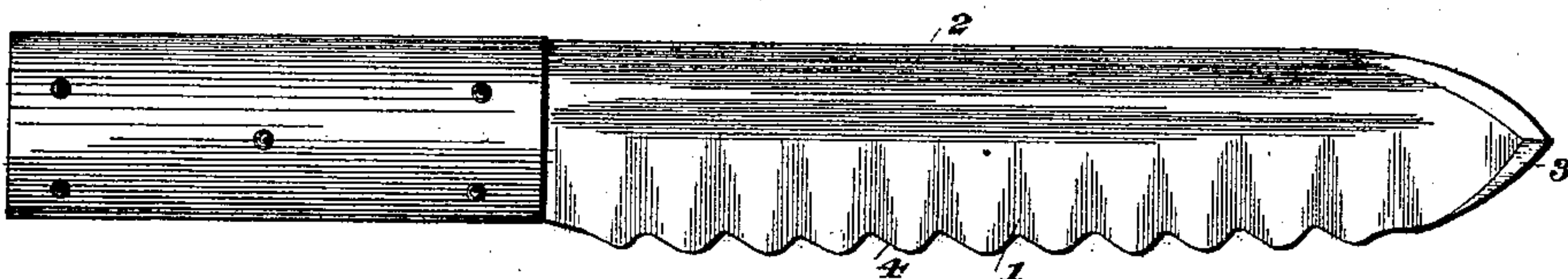


Fig. 3.



Fig. 4.

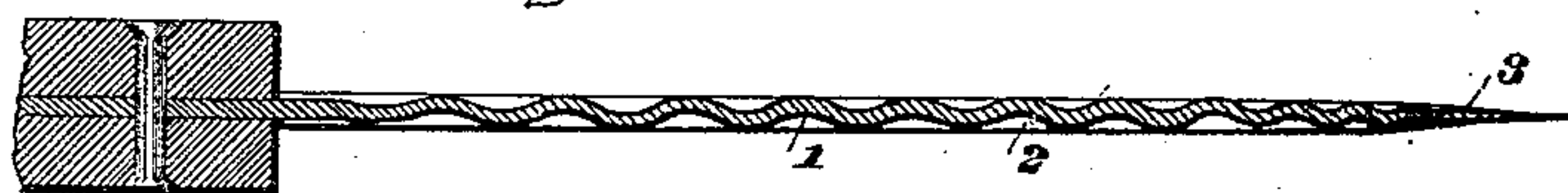
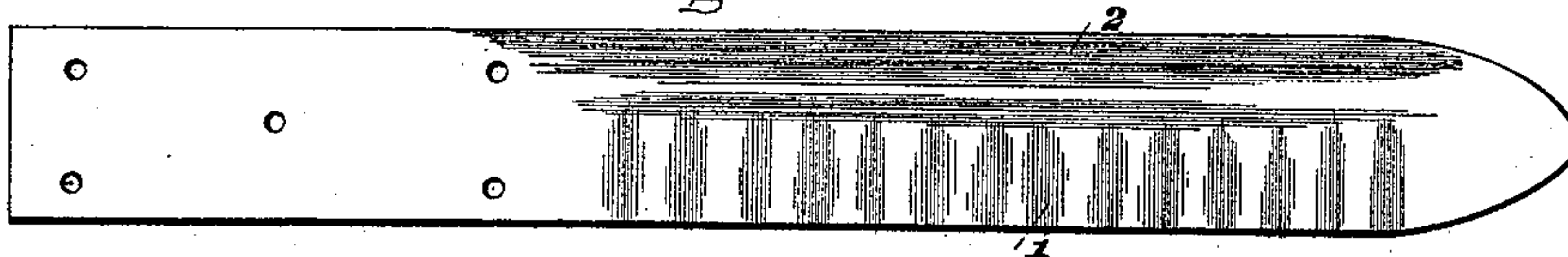


Fig. 5.



Witnesses

B. S. Ober
W. S. Linnell

Inventor
W. V. Barclay.

By *his* Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

WILLIAM V. BARCLAY, OF NORTH WAYNE, MAINE.

KNIFE.

SPECIFICATION forming part of Letters Patent No. 437,325, dated September 30, 1890.

Application filed August 2, 1890. Serial No. 360,804. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM V. BARCLAY, a citizen of the United States, residing at North Wayne, in the county of Kennebec and State of Maine, have invented a new and useful Manner of Forming Serrated Blades, of which the following is a specification.

This invention has relation to improvements in cutters—such as, for instance, cutter-bars of mowing-machines, hay and other knives, and other edged tools of that class employing a serrated beveled cutting-edge.

The objects of the invention are to provide a strong durable cutter comprising the above points, and which is so constructed as to be produced with facility not heretofore enjoyed, and which will therefore effect a reduction in the cost of its manufacture.

With the above objects in view the invention consists in certain features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a side elevation of a hay-knife employed to illustrate my invention. Fig. 2 is a similar view of the opposite side. Fig. 3 is a transverse vertical view. Fig. 4 is a longitudinal section taken just above the beveled cutting-edge. Fig. 5 is a view of the blank after corrugating and previous to beveling.

Like numerals indicate like parts in all the figures of the drawings.

I have herein, for the purpose of illustration, shown my invention as applied to a hay-knife; but it will be apparent that the same may be applied to various cutters and, in fact, to any edged tool designed to be reciprocated for cutting purposes and employing a serrated cutting-edge.

As shown in Fig. 5, I take a blank of steel and by suitable stamps provide the same with a series of corrugations 1, which may be called, for convenience, "through-and-through" corrugations, in that the impression upon one side causes a corresponding convexity upon the opposite side. In other words, the blade is simply fluted in a shallow manner from near one end to near the other, or from

near the point to the heel, the corrugations preferably extending to about the transverse middle of the blade.

In the present instance, for the purpose of strengthening the blade above the transverse corrugations or flutes, I form a pair of longitudinal corrugations 2. These longitudinal corrugations in no way facilitate the formation of the serrations hereinafter described; but I simply employ them for the purpose of stiffening the blade, whereby I am enabled to utilize much lighter material than if the corrugations were omitted. It is therefore obvious that said latter corrugations may or may not be employed, as desired. After the corrugations have been formed what is to be the cutting-edge of the knife has one side applied to a grindstone, whereby a bevel 3 is produced. By applying the knife to the grindstone the metal of the blade is worn away a sufficient distance to form the teeth or serrations 4. It will be observed that at the points of indentation upon the reverse or unbeveled side of the blade will occur the notches or spaces between the teeth or serrations, while the projecting portions, or those portions lying between the indentations, will form the teeth themselves. Such is true, by reason of the fact that the projecting portions upon the beveled side are the first to wear away and are worn or ground entirely through by the time the opposite projecting portions are reached. Such a course depends entirely upon the angle at which the blade is held during its application to the grindstone, and the teeth may be made of almost any desired length by presenting the blade at various angles. It is obvious that when dulled the blade may be readily sharpened by applying it to the grindstone, the sharpening being accomplished with facility and ease and requiring no special training upon the part of the attendant for this purpose, as has been the case heretofore.

Having described my invention, what I claim is—

1. A blade having a series of transverse through-and-through corrugations and one of

its edges beveled or ground to a cutting-edge forming a series of serrations, substantially as specified.

2. A blade having a series of transverse
5 corrugations extending through and through the blade and to about its transverse center, and one of its edges beveled to form serrations or teeth and having its back provided with one or more longitudinal stiffening-cor-
10 rugations, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM V. BARCLAY.

Witnesses:

J. H. HARRIS,
Mrs. M. J. HARRIS.