

(No. Model.)

C. C. BROOKS.
KNIFE.

No. 486,426.

Patented Nov. 22, 1892.

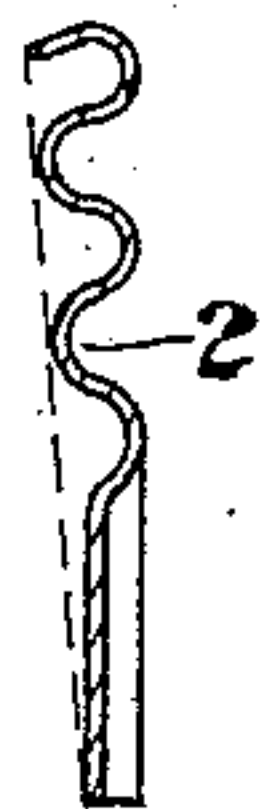


Fig. 2.



Fig. 3.

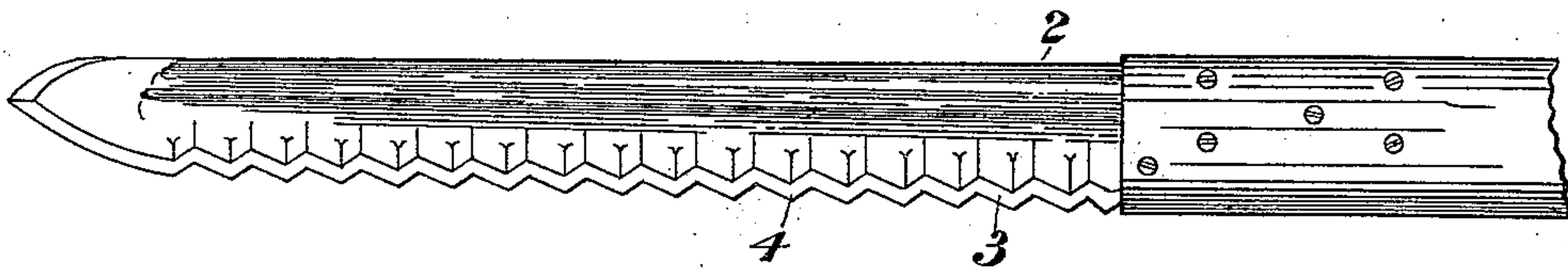


Fig. 1.

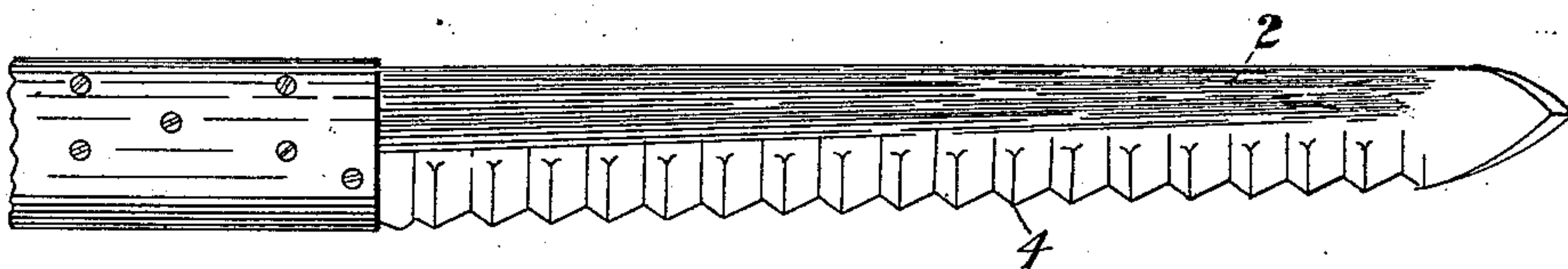


Fig. 4.

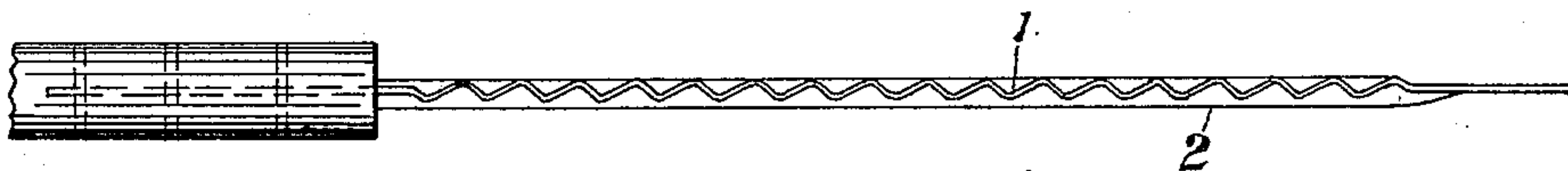


Fig. 5.

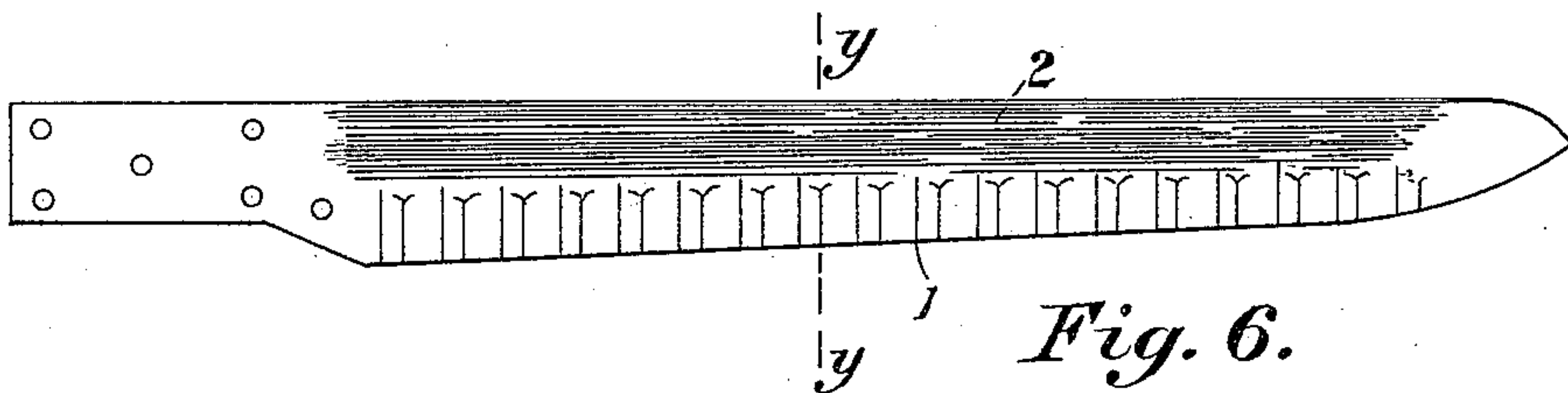


Fig. 6.

Witnesses
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UNITED STATES PATENT OFFICE.

CHAPIN C. BROOKS, OF CAPE ELIZABETH, MAINE.

KNIFE.

SPECIFICATION forming part of Letters Patent No. 486,426, dated November 22, 1892.

Application filed March 7, 1892. Serial No. 423,960. (No model.)

To all whom it may concern:

Be it known that I, CHAPIN C. BROOKS, a citizen of the United States, residing at Cape Elizabeth, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Knives; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

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

The objects of the invention are to provide a strong durable cutter, so constructed as to be produced with greater facility and less cost than heretofore.

Referring to the drawings, Figure 1 is a side elevation of a hay-knife embodying my invention. Fig. 2 is a transverse vertical section of the same. Fig. 3 is a transverse vertical section showing a modification of the corrugations of the back. Fig. 4 is a side elevation of the opposite side of the knife shown in Fig. 1. Fig. 5 is a bottom plan of the knife. Fig. 6 is a side elevation of the knife-blank before it is beveled.

My invention, as herein described and illustrated, is embodied in the hay-knife; but it is obvious that the same method of construction may be applied to various cutters and edged tools designed to be moved to and fro in use and employing a serrated cutting-edge.

In constructing the knife a sheet of steel is subjected to the action of suitable dies, whereby the same is provided with a series of through-and-through corrugations 1 1, the depression or concavity upon one side causing a corresponding convexity on the other side. I prefer that the corrugations should be angular, as shown in Fig. 5; but they may be made fluted or grooved. These corrugations may

extend from the cutting-edge to points one-half of the distance between the edges of the knife. At the same time that the corrugations 1 1 are formed that portion of the knife-blank between the corrugations 1 1 and the back is provided with a series of longitudinal corrugations 2 2, as shown especially in Figs. 2 and 3. The number of these corrugations 2 2 depends, of course, upon the thickness of the steel used and the purpose to which the knife is to be applied. The blank thus constructed is now ground upon one side, whereby a bevel is produced, the metal of the blade being ground away sufficiently to form the teeth or serrations 4. (See Figs. 1 and 2.) These teeth are formed, as is obvious, in consequence of the convex portion upon the beveled side being first worn away by the grinding process, the concave portion forming the teeth and the convex portion the spaces between them. The sharpening of the blade when dull may be readily accomplished by grinding in the same manner as when forming the teeth. A knife with double cutting-edges may be formed by locating the corrugations 2 2 at or near the center of the length and forming corrugations 1 1 on either side.

What I claim is—

A blade having a series of 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-corrugations, substantially as specified.

In testimony that I claim the foregoing as my invention I have hereunto set my hand this 2d day of March, A. D. 1892.

CHAPIN C. BROOKS.

In presence of—
GEO. E. BIRD,
A. C. BERRY.