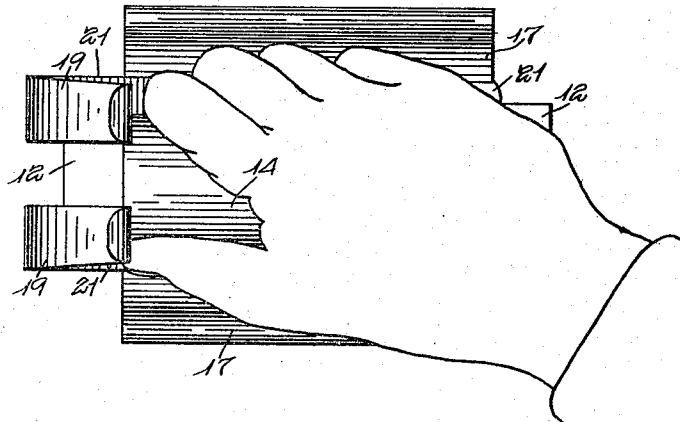
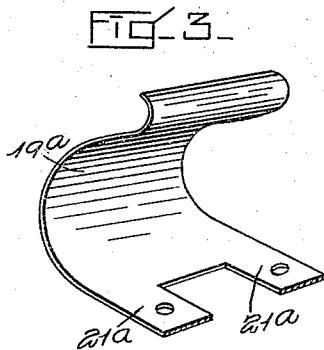
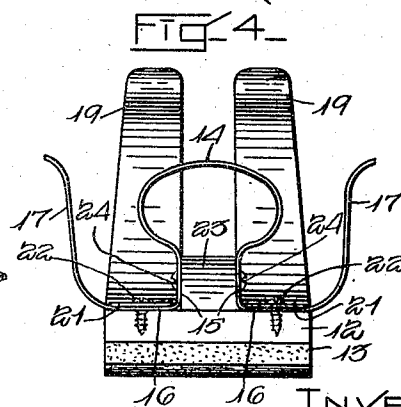


1,200,089.



16 INVENTOR=
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ATTORNEYS

UNITED STATES PATENT OFFICE.

THOMAS B. DOOLEY, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO ARTHUR T. DOOLEY,
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SHARPENING IMPLEMENT.

1,200,089.

Specification of Letters Patent.

Patented Oct. 3, 1916.

Application filed December 10, 1915. Serial No. 66,077.

To all whom it may concern:

Be it known that I, THOMAS B. DOOLEY, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Sharpening Implements, of which the following is a specification.

This invention relates to a hand-operated implement adapted to sharpen the edge of a paper cutting machine knife, while such knife is in place on the machine, the implement comprising a back adapted to be grasped by the operator, and a facing of suitable abrasive material or composition formed to be rubbed upon the knife.

The invention has for its object to provide an implement of this character with means for guarding the operator's hand against accidental contact with the knife edge while manipulating the implement, said means being resistant to penetration by a cutting edge and presenting flexible edge portions adapted to yield when brought into contact with a knife edge and thus minimize injury to said edge.

The invention is embodied in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings forming a part of this specification: Figure 1 represents a perspective view of an implement embodying my invention and a portion of a knife to which it is applied; Fig. 2 represents a top view showing the relative positions of the implement and the hand that manipulates it; Fig. 3 represents a fragmentary perspective view showing a modification; Fig. 4 represents an end view of the invention.

The same reference characters indicate the same or similar parts in all the views.

In the drawing, 12 represents the back and 13 the abrasive facing of an implement adapted to sharpen the edge of a knife *a*, which may be the knife of a paper cutting machine, the back being usually of wood. To the back is suitably attached a handle, which is preferably formed by bending a sheet metal blank into the shape illustrated by Fig. 1. Said handle and the side guards hereinafter described are preferably formed as a one-piece sheet metal body, the central portion of which forms the elongated grip portion 14 of the handle. Said body includes two handle-neck members 15, two

base members 16 and two wings 17, which are spaced from the sides of the handle and constitute side guards adapted to protect the operator's fingers and thumb against accidental contact with the knife edge in case the implement slips from its bearing on the knife, so that such contact becomes possible.

To protect the fore fingers and the tip of the thumb against accidental contact with the knife edge, I provide, in the preferred embodiment of my invention, an end guard composed of two curved sheet metal members 19, which are spaced from one end of the handle. The spacing of the said side and end guards is such that they permit the hand to readily grasp the handle, as indicated by Fig. 2. The said guards are made of material which is resistant to penetration by a cutting edge, and preferably made of sheet metal, which is so thin and flexible that in case either guard collides with the knife edge it will be likely to yield without breaking said edge to any material extent. In any case the flexibility of said guards should be such that it will minimize injury to the knife edge caused by contact of either guard therewith. The guards, and particularly the end guard, may be made of brass or other alloy, which is softer than iron or steel and is therefore less liable to break or nick the knife edge. Each guard is rigidly attached at its inner portion and presents a flexible yielding outer portion.

The end guard members 19 are provided with shanks 21 which bear upon the bases 16 and are secured therewith to the back 12 by screws 22.

The back 12 is preferably provided with a rib 23 which is interposed between the neck members 15 and is secured thereto by screws 24.

As an alternative end guard I may employ a single flexible strip 19^a (Fig. 3), which may be provided with two integral shanks 21^a adapted to be secured by the screws 22. I prefer however the end guarding means provided by the two independent strips or members 19, these being more flexible than the single strip 19^a and less liable to injure the knife edge.

The facing 13 may be molded from a plastic composition, and when solidified into an inherently rigid body may be cemented to the back 12.

Having described my invention, I claim:

1. A sharpening implement having upon its back a handle and means resistant to penetration by a cutting edge for guarding a hand grasping said handle against accidental contact with the edge of a knife to which the implement is applied, said means presenting flexible outer portions adapted to yield when brought in contact with a knife edge and thereby minimize injury to said edge.

2. A sharpening implement having upon its back a handle and flexible sheet metal guard members spaced from the handle and arranged to prevent accidental contact between a hand grasping said handle and the edge of a knife to which the implement is applied, said guard members having rigidly attached inner portions and flexible outer portions adapted to yield when brought in contact with a knife edge and thereby minimize injury to said edge.

3. A sharpening implement having an elongated handle upon its back, elongated side guards at opposite sides of the handle and spaced therefrom, and an end guard located at one end of the handle, each of said guards being spaced from the handle.

4. A sharpening implement having an elongated handle upon its back, elongated side guards at opposite sides of the handle and spaced therefrom, and an end guard located at one end of the handle and including

two members adapted to yield independently at their outer portions, each of said guards being spaced from the handle.

5. A sharpening implement having upon its back a sheet metal handle and side guards integral therewith and spaced therefrom.

6. A sharpening implement having upon its back a sheet metal handle, side guards integral therewith and spaced therefrom, and a sheet metal end guard located at one end of the handle and spaced therefrom.

7. A sharpening implement comprising a back having a rigid rib and a sheet metal body formed from a single blank and including a handle, two neck members rigidly attached to the rib, two base members rigidly attached to the back, and two side guards having flexible outer portions.

8. A sharpening implement comprising a back having a rigid rib, a sheet metal body formed from a single blank and including a handle, two neck members, two base members and two side guards, said neck members being attached to the rib, and the base members to the back, and sheet metal handle-end-guarding means having two shanks bearing on said base members and attached to the back therewith.

In testimony whereof I have affixed my signature.

THOMAS B. DOOLEY.