

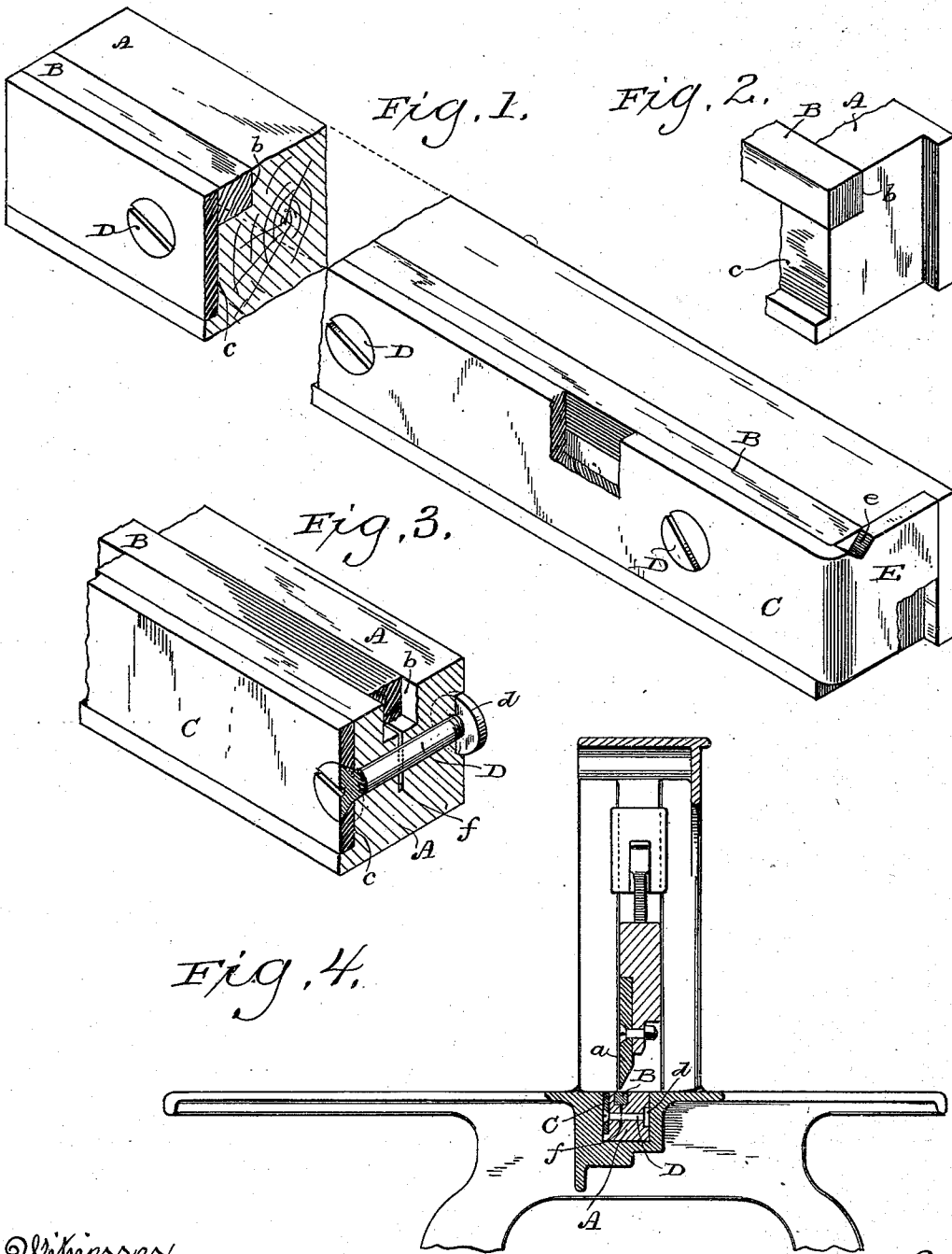
(No Model.)

J. E. HAMILTON.

CUTTING STICK FOR PAPER CUTTING MACHINES.

No. 416,602.

Patented Dec. 3, 1889.



Witnesses
Geo. W. Lounny,
N. E. Oliphant

Inventor
James E. Hamilton.
By J. H. Underwood
Attorneys

UNITED STATES PATENT OFFICE.

JAMES E. HAMILTON, OF TWO RIVERS, WISCONSIN, ASSIGNOR TO THE HAMILTON MANUFACTURING COMPANY, OF SAME PLACE.

CUTTING-STICK FOR PAPER-CUTTING MACHINES.

SPECIFICATION forming part of Letters Patent No. 416,602, dated December 3, 1889.

Application filed July 15, 1889. Serial No. 317,549. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. HAMILTON, of Two Rivers, in the county of Manitowoc and in the State of Wisconsin, have invented certain new and useful Improvements in Cutting-Sticks for Paper-Cutting Machines; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to cutting-sticks for paper-cutting machines; and it consists in certain peculiarities of construction, as will be hereinafter set forth, and subsequently claimed.

In the drawings, Figure 1 represents a perspective view, partly broken away, of one form of my present invention; Fig. 2, a detail end view of the same with the clamping-plate removed; Fig. 3, a detail perspective view illustrating another form of my present invention, and Fig. 4 is a sectional view of an ordinary paper-cutting machine showing my improved device in position therein.

My present invention is in part an improvement on that set forth in my patent, No. 407,861, granted July 30, 1889, and, like that, it embodies an ordinary cutting-stick of usual size, but provided with a removable section or strip that is arranged to come in contact with the edge of the knife of the cutting-machine, said removable section being four-sided and designed to have a fresh side or face brought in position under the knife as fast as the side or face just operated upon has become worn out, and when all four sides have become worthless the said section is to be removed and replaced by another, the expense of such new sections being trivial as compared with the cost of an entire cutting-stick.

A represents a cutting-stick for a paper-cutting machine, (such as the machine shown in Fig. 4, or of any other ordinary construction,) said stick being of the usual dimensions as to length and width. That portion of the stick designed to come in contact with the knife *a* is recessed, as shown at *b*, to receive a removable section or strip B, having four equal sides or faces, as already explained. One side of said stick is further preferably cut away, as shown at *c*, to receive a clamping-

plate C, which is extended along the side of the stick A for its entire length and secured thereto by screw-bolts D, extending transversely through said clamping-plate C and stick A, below the removable section B and nuts *d*, the said nuts and the heads of the screw-bolts being necessarily countersunk, so that their exterior surfaces may not extend beyond the side edges of the said stick and plate, and by tightening these screw-bolts D the plate C and stick A are drawn closely together, thereby securing firmly the removable strip B in place, while by loosening said screw-bolts the said strip B can be readily removed and replaced with a fresh side uppermost, or a new strip put in place thereof, as necessary.

Thus far my present invention does not differ materially in its broad construction from that set forth in my said prior application on which this is, as stated, an improvement; but in the use of my said prior device it was found that sometimes the shear-cut of the knife *a* would push the removable strip B endwise out of the main stick A, and to obviate this is the chief object of my present invention, which was done by bending one end of the clamping-plate C around the end of the stick A, as shown in Fig. 1 at E, and as (in the form shown in said figure) the top of this plate C was flush with the top of the said stick A, I formed this bent end E with a notch or cut-out portion *e* at a point in line with the adjacent upper edge of the removable strip B, as also shown in said Fig. 1.

In Figs. 1 and 2 I show the removable strip B near one edge of the stick A and next the clamping-plate C. In Fig. 3 I show the upper face of the stick A centrally recessed for said strip B and the stick provided with a saw-kerf *f*, formed longitudinally in said stick below the said recess *b*, said kerf *f* extending down below the line of the screw-bolts D, so that when the parts are all in place the said bolts will serve to draw the opposing walls of the recess *b* closely together against the adjacent side edges of the strip B, and when the screw-bolts are loosened the elasticity of the stick consequent upon the said kerf will tend to throw said walls of the recess free from the strip B and permit of the easy removal

or change of the latter. In Fig. 4 I show the recess *b* a little to one side of the center of the stick *A*. The stick *A* is preferably of hard wood, and the clamping-plate *C* preferably of steel. It is not necessary to cut away the side of the stick *A*, as shown at *c*, for the reception of the clamping-plate *C*, as the latter may be of the same height as that of the stick *A*, and merely secured against one side thereof; but the construction shown is deemed preferable as tending to keep the parts in proper relative position while the screw-bolts *D* are being loosened.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a paper-cutting machine, the combination, with a cutting-stick having a recess formed in its upper face, of a removable section fitted in said recess, and a clamping-plate secured directly to the side of the said stick and having one end bent around the end

thereof for retaining said removable section in place and preventing its endwise ejection, substantially as set forth.

2. In a paper-cutting machine, the combination, with a cutting-stick having a recessed upper face and a saw-kerf formed therein below the recess, of a removable section fitted in said recess, a bent clamping-plate located directly against one side and end of the said stick, and a series of transverse screw-bolts passing through said stick and plate and having tightening-nuts on their ends, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Two Rivers, in the county of Manitowoc and State of Wisconsin, in the presence of two witnesses.

JAMES E. HAMILTON.

Witnesses:

JOHN SMITH,

HENRY P. HAMILTON.