Feb. 13, 1934. D. CASTAIN 1,946,731

PAPER CUTTER

Filed Jan. 26, 1933

Fig. 1.

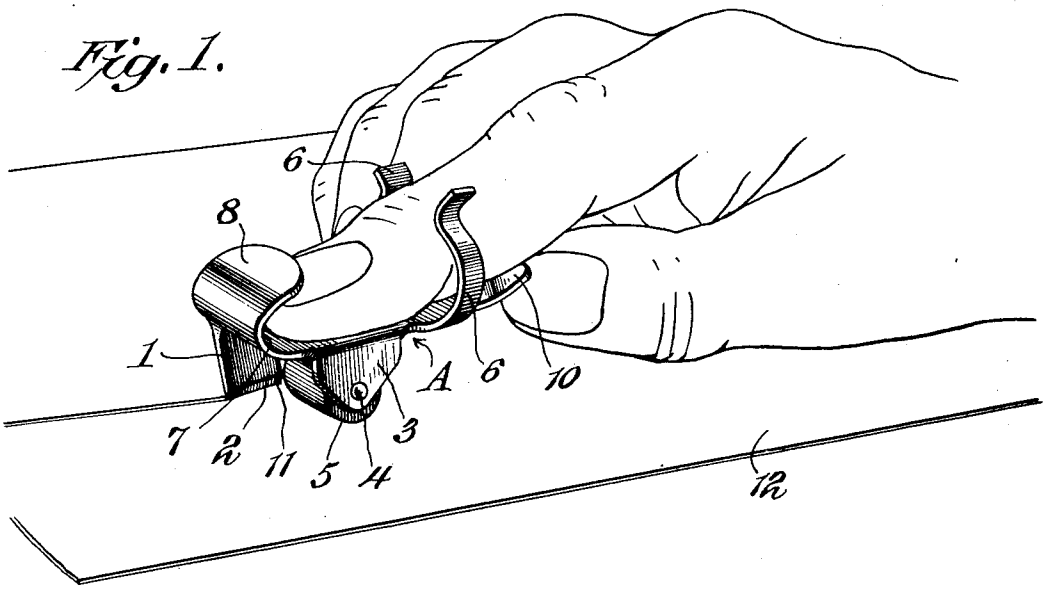


Fig. 2.

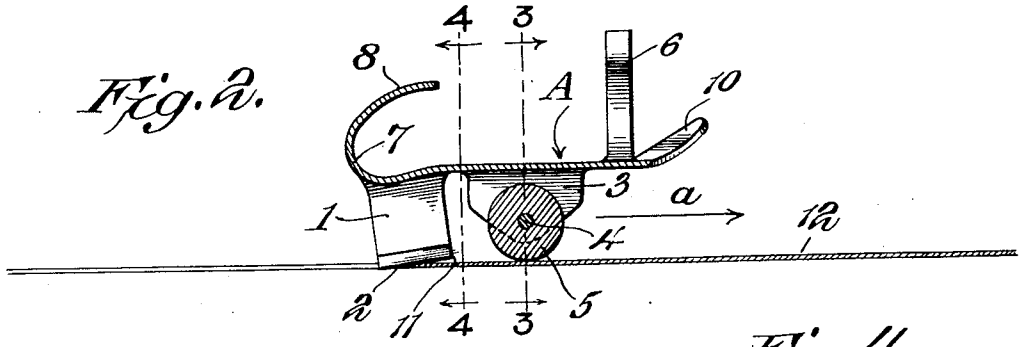


Fig. 3.

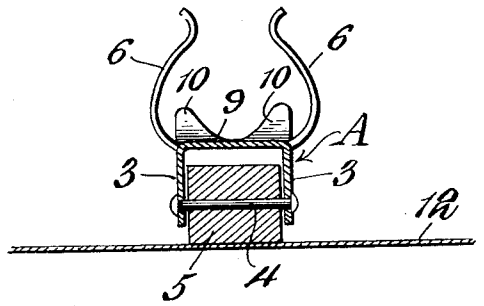
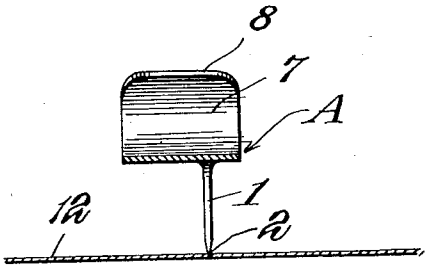


Fig. 4.



Inventor,
Douel Castain,
By Baldwin & Wright
Attorneys.

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PAPER CUTTER

Douel Castain, New Orleans, La.

Application January 26, 1933. Serial No. 653,733

5 Claims. (Cl. 164—83)

This invention relates to paper cutters and more particularly to paper cutters of the kind adapted to be drawn across a flat sheet of paper for cutting the latter without any folding thereof.

In accordance with the invention a knife blade is carried by a frame provided with means for attachment to a finger of the user, and a guide roller is supported on the frame adjacent to the knife blade for assisting the user in maintaining the blade in proper cutting relation with the paper to be cut.

The main object of the invention is to provide a paper cutter of the character above stated which is of simple construction and which may be easily applied to and removed from a finger of the user. Other and more specific objects will become apparent from a reading of the following detailed description, the appended claims, and the several views of the drawing in which:

Figure 1 is a perspective view of a paper cutter embodying the invention, the cutter being shown applied to a finger of a user,

Figure 2 is a central vertical sectional view of the cutter in cutting position,

Figure 3 is a sectional view taken on the line 3—3 of Figure 2, and

Figure 4 is a sectional view taken on the line 4—4 of Figure 2.

A practical embodiment of the invention is illustrated in the drawing as including a frame generally designated A to the lower face of which is attached in any suitable manner, such as by welding, a knife blade 1. The knife is preferably located at one end of the frame A, as shown, and is formed with a long cutting edge 2 extending longitudinally of the frame.

The frame A is formed or otherwise provided with a pair of spaced bracket portions 3—3 which extend downwardly from the opposite sides of the frame and provide a support for a pintle 4 on which a wide guide roller 5 is mounted for rotation with respect to the frame, the axis of the roller 5 being disposed transversely with respect to the frame and the cutting edge 2 of the knife blade.

For attaching the frame with its associated knife and guide roller to a finger of the user I have provided a finger embracing portion comprising a pair of opposed resilient finger-engaging clamp portions 6—6 which extend upwardly from the sides of the frame, and a seat 7 for receiving the end of the finger, this seat being spaced from the finger embracing clamp portions and being preferably formed by bending the end portion of the frame upwardly and then back towards the clamp portions 6—6, so as to overlie the end of the finger as at 8.

Preferably, the opposite end of the frame is cut out as at 9 to provide fixed spaced rearwardly extending portions 10—10 which are turned upwardly for engagement with opposite sides of the user's finger to maintain the cutter in alinement with the finger in case the resilient clamp portions 6 should yield to any unequal lateral thrust. It will be apparent that the clamping portions 6 and the fixed extensions 10 cooperate to maintain the frame and blade attached to the user's finger and in alinement therewith. The roller 5 is preferably made as wide as the space between the bracket portions 3—3 will permit, since this serves to maintain the cutter from tipping laterally and thus provides for the formation of a straight cut.

The relative disposition and sizes of the frame, roller and knife blade is such that the cutting edge 2, when in cutting position, is at a slight inclination with the sheet being cut, with the advance end 11 of the edge being disposed slightly above the sheet 12 being cut. I have found that this arrangement results in a cleaner and more easily formed cut being effected than when the cutting edge projects into the paper at more of an angle, that is, when the cutting edge is disposed more nearly normal to the sheet.

Although it is believed that the use of the device will be clear from the drawing taken in connection with the foregoing description, the latter may be supplemented by stating that the device is applied to a finger of the user with the end of the finger against the seat 7 and an intermediate part of the finger within the clamp portions 6—6. A slight pressure is then applied to the roller, the frame tipped until the paper is engaged by the knife edge, and the cutter then drawn across the paper 12 in the direction of the arrow *a* as shown in Figure 2.

It will be apparent that I have provided a cutter which, though of simple construction, can be quickly applied to the finger of the user, being then conveniently positioned for quick and accurate cutting operation. Various changes may be made in the embodiment of the invention herein shown and described without departing from the spirit of the invention as defined in the claims.

I claim as my invention:

1. In a paper cutter, the combination of a frame having finger-attaching means extending above its top face; a knife blade extending down-

wardly from the bottom face of said frame and having its cutting edge disposed longitudinally of the frame; and a guide roller rotatably supported on the frame below the bottom face thereof and with its axis normal to the plane of said knife blade.

2. In a paper cutter, the combination of a frame having finger-attaching means extending above its top face; a substantially vertical knife blade extending downwardly from the bottom face of said frame and having a long cutting edge disposed longitudinally of the frame; and a guide roller rotatably supported on the frame below the bottom face thereof and with its axis normal to the plane of said cutting edge, said roller and cutting edge being adapted for simultaneous engagement with a sheet to be cut, and said cutting edge, when in cutting position, extending in the direction of the cut to be formed and being at a slight inclination with the sheet with the advance end of said cutting edge being disposed slightly above said sheet.

3. In a paper cutter, the combination of a frame; a knife blade extending downwardly from the bottom of said frame and having its cutting edge disposed longitudinally of the frame; a wide guide roller rotatably supported on the frame below the latter and with its axis normal to the plane of said blade; and means for attaching said frame to a finger, said means comprising a finger-embracing portion extending upwardly from said frame, and a seat on said frame and longitudinally spaced from said finger-embracing portion for receiving the end of the finger.

4. In a paper cutter, the combination of a frame; a knife blade extending downwardly from the bottom of said frame and having its cutting edge disposed longitudinally of the frame; a wide guide roller rotatably supported on the frame below the latter and with its axis normal to the plane of said blade; and means for attaching said frame to a finger, said means comprising a pair of opposed resilient finger-embracing clamp portions extending upwardly from the sides of said frame, and a seat on said frame and longitudinally spaced from said clamp portions for receiving the end of the finger, said seat being constituted by an upturned end of said frame.

5. In a paper cutter, the combination of a frame; a knife blade extending downwardly from the bottom of said frame and having its cutting edge disposed longitudinally of the frame; a wide guide roller rotatably supported on the frame below the latter and with its axis normal to the plane of said blade; and means for attaching said frame to a finger; said means comprising a pair of opposed resilient finger-embracing clamp portions extending upwardly from the sides of said frame, a seat on said frame and longitudinally spaced from said clamp portions for receiving the end of the finger, said seat being constituted by an upturned end of said frame, and fixed spaced portions extending upwardly from the opposite end of the frame for engagement with a finger positioned within said finger-embracing portions for maintaining said frame and blade in alinement with said finger.

DOUEL CASTAIN.