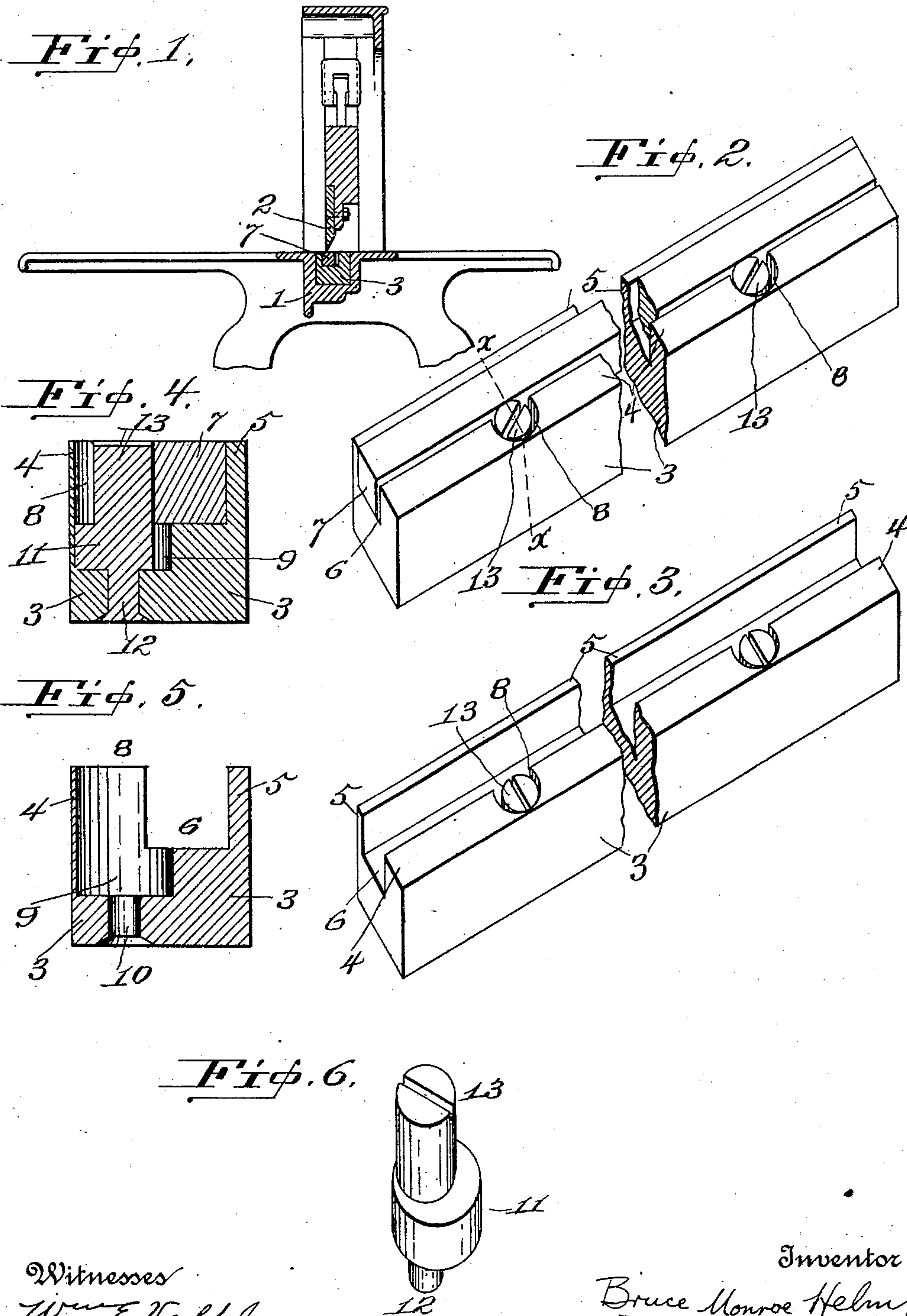


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CUTTING STICK FOR PAPER CUTTING MACHINES.
APPLICATION FILED SEPT. 25, 1909.

969,371.

Patented Sept. 6, 1910.



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UNITED STATES PATENT OFFICE.

BRUCE MONROE HELM, OF HAGERSTOWN, MARYLAND.

CUTTING-STICK FOR PAPER-CUTTING MACHINES.

969,371.

Specification of Letters Patent.

Patented Sept. 6, 1910.

Application filed September 25, 1909. Serial No. 519,585.

To all whom it may concern:

Be it known that I, BRUCE M. HELM, a citizen of the United States, residing at Hagerstown, in the county of Washington and State of Maryland, have invented certain new and useful Improvements in Cutting-Sticks for Paper-Cutting Machines, of which the following is a specification.

This invention relates to cutting sticks for paper cutting machines, and pertains especially to means for securing a wooden block or strip in a metal holder or bar of special construction.

In this class of devices it is highly essential that the wooden strip or block, against which the cutting edge of a knife or blade strikes, be securely held in a metal bar, so that it may be placed and removed, and after becoming worn by the knife edge it may be readily removed and a new cutting-strip substituted. It is the purpose of this invention to provide novel and peculiar means for such placing and removal of the strip in a most expeditious manner. Such strips are usually held in bars or blocks by screw bolts and clamping plates, and I have a companion application of even date herewith for an improved device for clamping a wooden strip in a metallic bar or holder by special construction of the holder and by special clamping-plates controlled by set-screws.

The object of the invention is to provide means for effecting the clamping of the strip in the bar or holder by certain means other than clamping-plates, set-bolts and set-screws.

To this end the invention consists in the novel construction and arrangement of parts, and resides essentially in holding the strip in the bar by cams operated from and through the top of the bar against the strip.

In the accompanying drawings forming part of this application: Figure 1 is a sectional view of a guillotine paper cutter partly broken away showing the application of the invention. Fig. 2 is a perspective view of the cutting stick showing the strip secured therein. Fig. 3 is a similar view showing the holder without the strip and with the cam in position to permit the insertion of the strip. Fig. 4 is an enlarged cross section on the line $x-x$, Fig. 2. Fig. 5 is a similar view with the strip and cam removed. Fig. 6 is a perspective view of one of the cams.

The same reference numerals denote the same parts throughout the several views of the drawings.

The cutting stick is shown secured in the bed 1, of a guillotine paper cutting machine, provided with a cutter or knife 2.

The cutting stick consists of a metal bar 3 having side flanges 4 and 5 forming a longitudinal groove 6, for a wooden strip 7. The flange 4 has circular recesses 8, one side of which opens through the inner side of the flange 4 into the groove 6. Circular seats 9 are made in the bar 3, from the base of the groove 6 whence such seat extends for a portion of the depth of the bar 3, and from the bottom of the seats 9, a hole 10 extends to the bottom of the bar.

The means for securing the strip 7 in the groove 6, consists of pins or plugs 11 fitting the seats 9, and having a pintle 12 loosely fitting the holes 10, the ends of the pintle being enlarged or spread to prevent displacement. A head 13 having a screw-driver slot for turning it, is projected from the plug or pin 11 eccentric to the plug or pin so as to form a cam which is operated in the recesses 8, and against the strip.

It will be observed that the cams when turned into the groove 6 wedge or force the strip against the flange 5, so as to leave a space between the flange 4 and the strip 7 to permit expansion of the strip.

It will be seen that the strip may be inserted and removed without detaching the bar or removing it from the bed of the cutting machine, by simply operating the pins 11.

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

1. A cutting stick for paper cutting machines, comprising a bar having a pair of flanges forming a groove, a strip loosely fitting the groove, and eccentric pins working through one of the flanges for wedging the strip against the other flange.

2. A cutting stick for paper cutting machines, comprising a grooved bar having side flanges, a strip loosely fitting the groove, and cams seated in one of the flanges and working through the inner face thereof for wedging the strip against the other flange.

3. A cutting stick for paper cutting machines, comprising a grooved bar having side flanges, a strip loosely fitting the groove, pins turnable in the bar under one of the

flanges and having a cam working through the inner face of this flange into the groove for wedging the strip against the other flange.

5 4. In a cutting stick for paper cutting machines, the combination, with a grooved bar having side flanges, and a strip loosely fitting the groove, of means for securing the strip in the groove comprising pins anchored
10 in the bar under one of the flanges and having an eccentric head turnable through the inner face of said flange to make a cam engagement with the strip.

15 5. In a cutting stick for paper cutting machines, the combination, with a grooved bar having circular seats under one of the walls

of the groove, circular recesses extending from the seats and opening through the inner face of this wall, and a cutting strip loosely fitting the groove, of pins turnable in the seats and having a pintle extending through the bottom of the bar for anchoring the pins, and an eccentric head turnable in the recesses and against the strip to clamp it in the groove.

In witness whereof I hereunto set my hand in the presence of two witnesses.

BRUCE MONROE HELM.

Witnesses:

EDNA A. MACKENZIE,
MARY BLACK.