

G. M. KLEPPER.
CUTTING MACHINE.
APPLICATION FILED NOV. 27, 1909.

993,077.

Patented May 23, 1911.

3 SHEETS—SHEET 1.

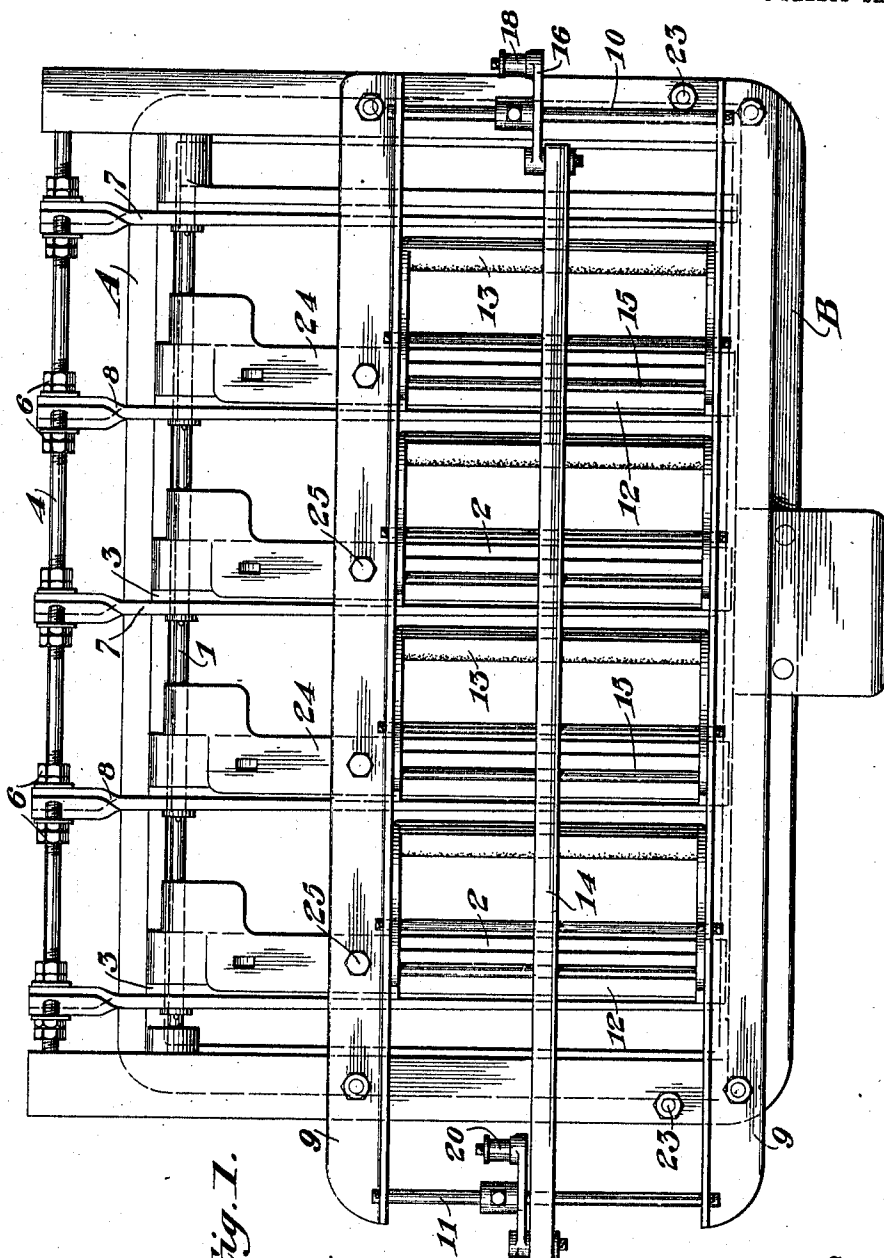


Fig. 1.

Witnesses

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Inventor

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3 SHEETS-SHEET 2.

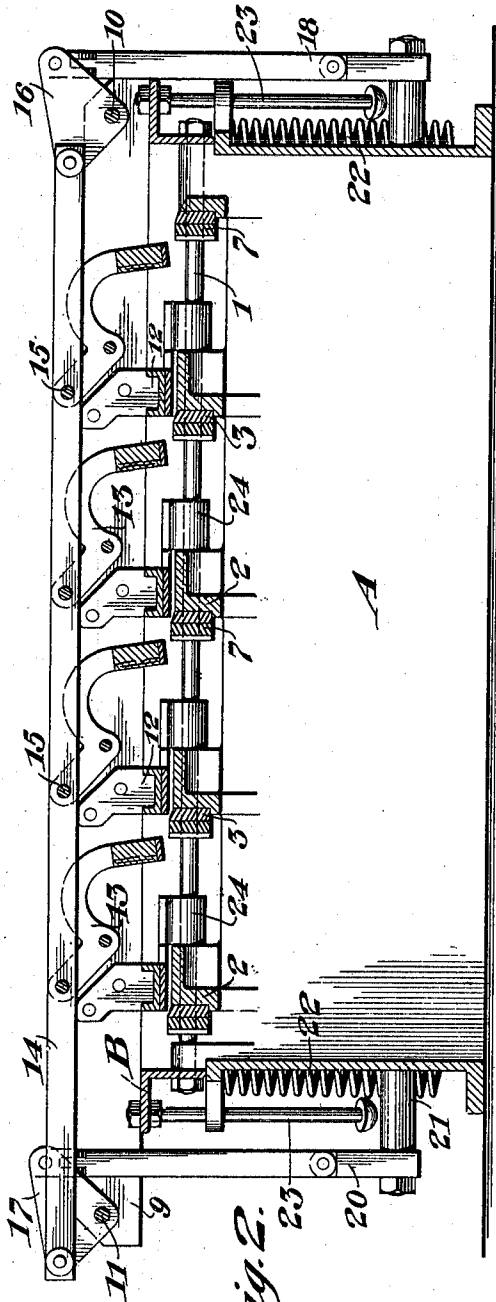


Fig. 2.

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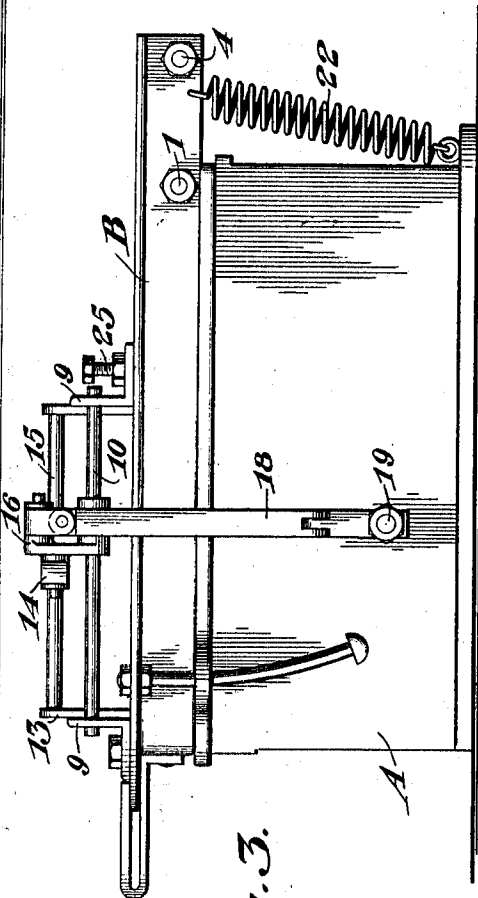


Fig. 3.

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3 SHEETS—SHEET 3.

Fig. 4.

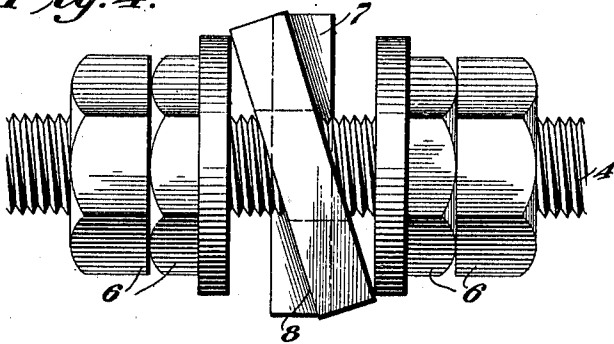


Fig. 5.

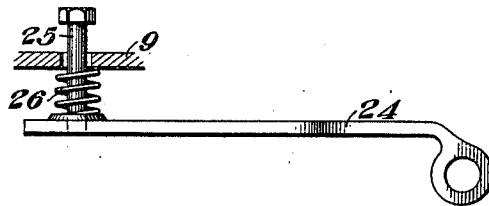


Fig. 6.

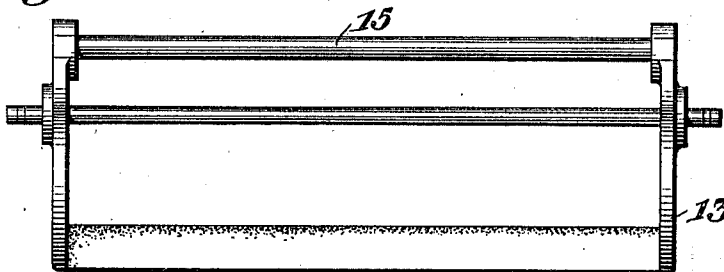
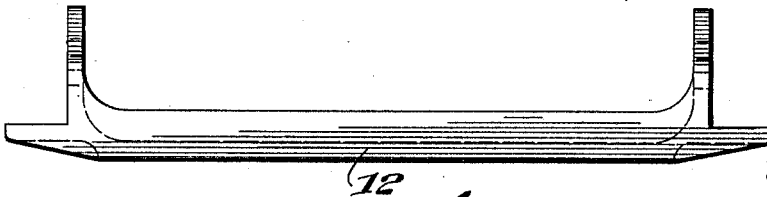


Fig. 7.



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UNITED STATES PATENT OFFICE.

GEORGE MURRAY KLEPPER, OF MILTON, PENNSYLVANIA.

CUTTING-MACHINE.

993,077.

Specification of Letters Patent.

Patented May 23, 1911.

Application filed November 27, 1909. Serial No. 530,269.

To all whom it may concern:

Be it known that I, GEORGE MURRAY KLEPPER, a citizen of the United States, residing at Milton, in the county of North-
5 umberland and State of Pennsylvania, have invented certain new and useful Improvements in Cutting-Machines, of which the following is a specification.

My invention relates to an improvement
10 in machines for cutting bank notes, and its object is to provide means for cutting notes which are of different dimensions, such, for instance, as the strip which consists of the twenty dollar note and three tens. The
15 outer edges of the notes are uneven and therefore it has been necessary in many instances to cut the notes by hand, as a machine is apt to cut some of the notes.

By my invention, I have provided means
20 whereby the cutting edges of the knives will be brought together in the same manner or practically the same as in the operation of shears, whereby a clean cut will be made without forming any rough or feather edge.

My invention consists in certain novel
25 features of construction and combinations of parts which will be hereinafter described and pointed out in the claims.

In the accompanying drawings:—Figure
30 1 is a top plan view; Fig. 2 is a longitudinal sectional view; Fig. 3 is an end view; Fig. 4 is an end view of one of the cutting blades; Fig. 5 is a detail view of the paper holder; Fig. 6 is a view in elevation of the inking
35 mechanism; and Fig. 7 is a view in elevation of the plate holder.

A represents the base of the machine, and B is the cover, which is preferably a U-shaped frame which is pivotally mounted
40 upon the shaft 1 mounted upon the base A. The base A is provided with transverse bars 2, 2, upon which are mounted stationary blades 3. The blades are vertically supported upon the bars 2. The ends of the frame
45 of the cover B extend rearwardly beyond the base, and a rod 4 is mounted upon the cover at the ends thereof. The rod is preferably screw-threaded, and received upon the rod are nuts 6, 6. Pivottally mounted upon the
50 shaft 1 are the cutting blades 7. These blades in their movement are adapted to

act in connection with the stationary blades 3, whereby the proper cutting action is obtained in cutting the notes without causing a feather edge. The outer ends of the blades
55 are bent or twisted at an angle, as at 8, and an opening is formed in the end of each blade in the twisted portion through which the rod 4 is received and which opening is larger than the rod 4. The nuts 6 are adapted
60 to be screwed up against the twisted end 8 of the blade 7, one nut on each side, whereby the proper adjustment can be obtained for causing the blade to come properly against the stationary cutting blade 3 to
65 create the proper cutting action. If the pivoted blades 7 were allowed to come down against the stationary blade without any lateral pressure, the proper cutting action would not be obtained, but instead, a ragged
70 edge would be formed. Therefore, by having one nut 6 engaging one surface of the twisted portion 8 and another nut engaging another portion which is at a diagonally
75 opposite point, the blade or shear will be caused to move laterally as it is moved downward. As the cover B is moved downward, the rod 4 being stationary, the shear or blade 7 will move upon this rod, and as the twisted portion comes into contact with the
80 nuts 6, it will be caused to move sidewise or laterally toward the stationary blade, and thereby produce a shearing action and causing both blades to be brought close together as is the case in using an ordinary pair of
85 shears. As the shears move downwardly, caused by the downward movement of the cover B, by reason of the engagement of the twisted portion of the ends of the shears by the nuts on each side of the twisted portions,
90 an engagement is formed between the twisted portion and the nuts which tends to exert a pressure upon the shears or blades which causes them to move laterally, whereby the cutting edges of the movable blade and the
95 stationary blade will come together and produce the proper shearing action.

Mounted upon the frame of the cover B and longitudinal thereof, are plates 9, and
100 journaled in the end of the plates are shafts 10 and 11. Supported between the plates are plate holders 12, 12, to which are con-

nected the plates containing the names of
 the officers which are to be placed or im-
 printed upon the bank notes. Inking pad
 holders 13 are journaled between the plates
 5 9 and connected to the holders 13 is a bar
 14, which bar is connected to the holders by
 means of rods 15 which pass through the bar
 14 and holders 13. Mounted upon the rods
 10 and 11 are bell cranks 16 and 17, respec-
 10 tively. The outer end of the bell crank 17
 is pivotally connected to the bar 14, and
 the inner end of the bell crank 16 is con-
 nected to the bar 14. The outer end of the
 bell crank 16 is connected to a lever 18,
 15 which is pivotally connected to the base A
 by a stud 19. A lever 20 is pivotally con-
 nected to the inner end of the bell crank 17
 and is pivotally connected to a stud 21 on
 the base A. Coil springs 22 are connected
 20 to the outer ends of the frame B and to the
 base A. When the cover or frame B moves
 downwardly, it moves down in opposition to
 the tension of the springs 22. Rods 23 are
 25 connected to the cover B at the forward end,
 and the rods have a slanting engagement
 with the base A. These rods are adapted
 to limit the upward movement of the cover.
 Pivotally mounted upon the rod 1 are
 paper holders 24 which are connected at
 30 their free ends to the innermost plate 9 by
 screw bolts 25. Coil springs 26 are received
 between the holders 24 and the plates 9 for
 holding the plates downward in proper po-
 sition. The plates are adapted to lie di-
 35 rectly over the bars 2 of the base A, so that
 the sheet of bank notes will be properly held
 in position during the downward move-
 ment of the cover. As the cover is moved
 downward, the holders 24 will be the first
 40 to engage the notes, thereby holding them
 in position. As the cover moves down far-
 ther, the shears will begin to act, and as the
 cover is finally brought down, the complete
 cutting operation is formed and the plates
 45 upon the plate holders 12 will come in con-
 tact with the bank note and the impression
 made thereon. Upon the upward move-
 ment of the cover B, the bell crank 17 will
 be caused to move upward, causing the rod
 50 14 to be reciprocated, thereby causing the
 pad holders 13 to be moved beneath the plate
 holders 12 for inking the plates. As the
 cover moves downward, the bell cranks will
 move downward, causing the bar 14 to re-
 55 ciprocate in an opposite direction, and
 thereby withdrawing the pad holders from
 engagement with the plate holders, so that
 the plates are allowed to come in contact
 with the notes and make the impression
 60 when the cover is lowered.

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

1. In a cutting machine, the combination

with a base, blades mounted upon the base, 65
 of a hinged top, blades pivotally mounted
 thereon, and means engaging the pivoted
 ends of the blades for transmitting lateral
 movement thereto during the movement of
 the blades for the cutting operation. 70

2. In a cutting machine, the combination
 with a base, blades mounted upon the base,
 of a pivotally mounted cover, blades piv-
 otally mounted thereon, the ends of said
 blades being bent, and means engaging said 75
 bent portion for transmitting motion to the
 blades for causing the movable blades to
 come into engagement with the stationary
 blades as the movable blades are moved for
 the cutting operation. 80

3. In a cutting machine, the combination
 with a base, blades upon the base, of piv-
 otally mounted blades, said blades having an
 end thereof bent, means for engaging said 85
 bent portion for moving the blades laterally
 as the blades are moved for the cutting op-
 eration.

4. In a cutting machine, the combination
 with a base and a top, said base having
 blades thereon, of pivotally mounted blades 90
 having an end thereof twisted, a rod mount-
 ed upon the top, and the twisted portion of
 the blades mounted upon the rod, and means
 on the rod engaging the twisted portion of
 the blades for causing the blades to be 95
 moved into engagement with the stationary
 blades.

5. In a cutting machine, the combination
 with a base and a top, said base having
 blades thereon, of pivotally mounted blades 100
 having an end thereof twisted, a rod mount-
 ed upon the top, and the twisted portion of
 the blades mounted upon the rod, and nuts
 upon the rod engaging the twisted portion
 of the blades for adjusting the blades and 105
 causing the blades to be moved into engage-
 ment with the stationary blades.

6. In a cutting machine, the combination
 with a base, blades mounted upon the base,
 of pivotally mounted blades, and means en- 110
 gaging the pivotal ends of the blades as the
 blades are moved for the cutting operation
 for transmitting lateral movement to the
 blades.

7. In a cutting machine, the combination 115
 with a base and a top, said base having
 blades thereon, of blades pivotally mounted
 on the top having an end thereof twisted, a
 screw-threaded rod mounted on the top, and
 the twisted portion of the blades mounted 120
 on the rod, and nuts on the screw-threaded
 rod engaging each side of the twisted por-
 tion of each pivotal blade.

8. In a cutting machine, the combination
 with a base having blades thereon, of a 125
 cover having blades thereon, and paper-
 holders on the cover for holding the paper
 on the base during the cutting operation.

9. In a cutting machine, the combination
with a base having blades thereon, of a
cover, pivotally mounted blades adapted to
engage the blades of the base, pivotally
5 mounted paper holders connected to the
cover, and means for exerting pressure upon
the holders.

In testimony whereof I affix my signature,
in the presence of two witnesses.

GEO. MURRAY KLEPFER.

Witnesses:

C. A. NEALE,
WATTS F. ESTABROOK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
