July 31, 1923.

1,463,393

H. N. HEILMAN.

COUPON CUTTING MACHINE

Filed May 27, 1920

FIG. 1.

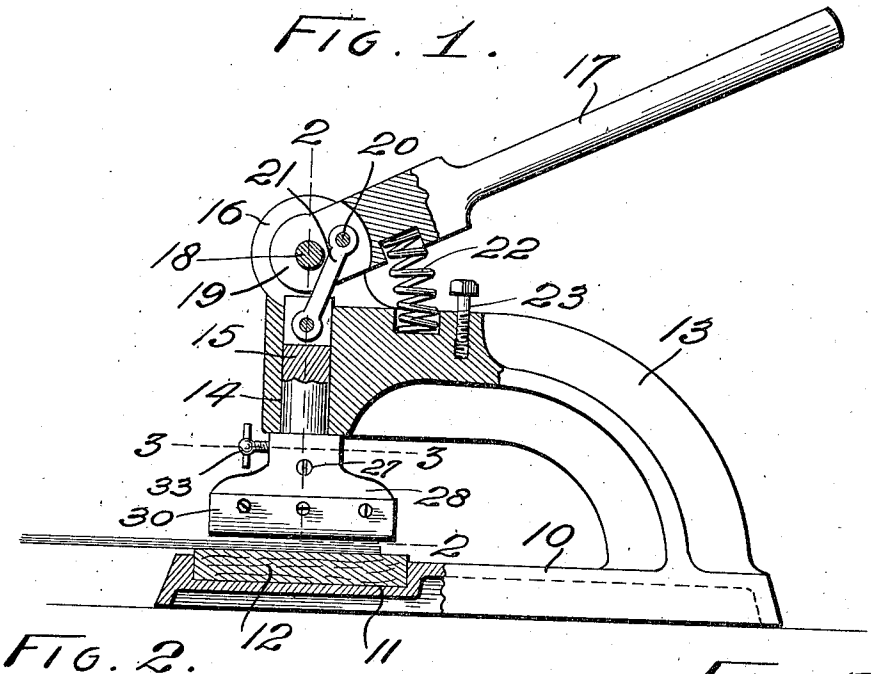


FIG. 2.

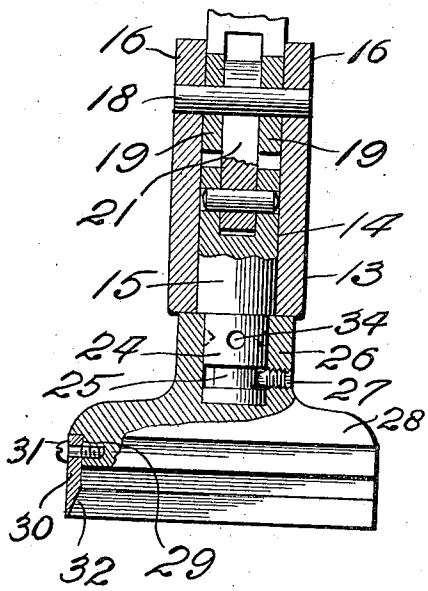


FIG. 5.

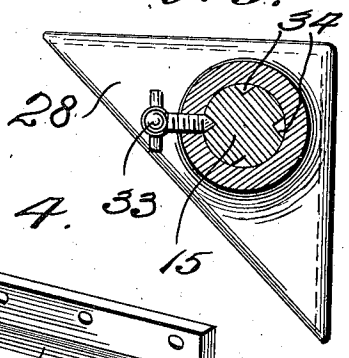
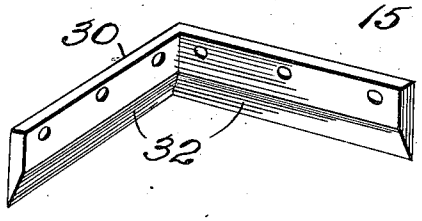


FIG. 4.



INVENTOR:—

Henry N. Heilman

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UNITED STATES PATENT OFFICE.

HENRY N. HEILMAN, OF ST. LOUIS, MISSOURI.

COUPON-CUTTING MACHINE.

Application filed May 27, 1920. Serial No. 384,778.

To all whom it may concern:

Be it known that I, HENRY N. HEILMAN, a citizen of the United States, residing at St. Louis, State of Missouri, have invented a certain new and useful Improvement in Coupon-Cutting Machines, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to new and useful improvements in coupon cutting machines, the principal objects of my invention being to provide a relatively simple, practical device that is capable of being easily operated for the purpose of cutting with a single stroke a plurality of coupons from sheets of bonds, or the like, and further to provide a relatively simple machine having an adjustable blade carrying head which permits the angle of cut to be varied as desired.

With the foregoing and other objects in view, my invention consists in certain new and novel features of construction and arrangement of parts hereinafter more fully described, claimed and illustrated in the accompanying drawings, in which—

Fig. 1 is an elevational view of a coupon cutting machine constructed in accordance with my invention and with parts thereof in vertical section.

Fig. 2 is an enlarged vertical section taken approximately on the line 2—2 of Fig. 1.

Fig. 3 is an enlarged horizontal section taken approximately on the line 3—3 of Fig. 1.

Fig. 4 is a perspective view of the blade utilized in my improved coupon cutting machine.

Referring by numerals to the accompanying drawings which illustrate a practical embodiment of my invention, 10 designates a base plate, preferably formed of metal, and in the forward portion of which is formed a recess or depression 11 that is occupied by a removable block 12 of wood or analogous material which serves as the cutting table of the device. Formed integral with or fixed to the rear portion of base 10 is an upwardly and forwardly projecting bracket 13, and formed through the forward portion thereof is a vertically disposed opening 14 that serves as a bearing for a substantially cylindrical plunger 15, and which latter carries the head and cutting blade of the machine.

Projecting upwardly from the forward portion of bracket 13 to the sides of opening 14 are ears 16 between which is arranged the forward end of a hand lever 17, the same being fulcrumed upon a pin 18 which passes through the ears 16. The forward end of the lever is slotted vertically to form a pair of ears 19, and seated therein to one side of the pivot pin 18 is a pin 20 to which is pivotally connected the upper end of a link 21 and the lower end of the latter is pivotally connected in any suitable manner to the upper end of plunger 15. Interposed between the underside of hand lever 17 and the top of bracket 13 is a compression spring 22 that normally maintains the hand lever at its upper limit of movement and resists its downward movement. The downward travel of the hand lever 17 is regulated by an adjustable stop in the form of a screw 23 that is seated in the top of arm 13 to the rear of spring 22.

Depending from the lower end of plunger 15 is a cylindrical stem 24 in the lower portion of which is formed an annular groove 25. Positioned on this stem 24 is a collar 26 through the lower portion of which passes a pin or screw 27 the inner end of the latter being positioned in the groove 25. This pin retains the collar and parts carried thereby upon the stem 24 and permits said collar to be rotated freely upon said stem. Formed integral with or fixed to the lower end of collar 26 is a substantially triangular block 28 that carries the cutting blade and for the accommodation of the latter the lower portions of the side faces of said block that are disposed substantially 90 degrees apart are provided with grooves 29 which receive the upper portions of the blade 30, and the latter being secured to block 28 by means of set screws 31 which pass through suitably formed apertures in the upper portion of the blade and engage in threaded apertures formed in said block.

As illustrated in Fig. 4, the blade is formed in one piece and with substantially one-half of the body thereof disposed at right angles to the other half. Further, in order to effect a movement of the cut coupons away from the sheets to which they were originally attached, the beveled faces 32 which are

formed on the blade to produce the cutting edges are disposed on the inner faces of the two parts of the blade.

In order to lock the blade carrying block 28 to the stem 24 during the cutting operations, a set screw 33 is seated in collar 26, and the inner end of this screw is adapted to engage in any one of a series of recesses 34 and which latter are formed in the outer face of stem 24 above the groove 25 therein. These recesses 34 are preferably arranged 90 degrees apart thereby permitting the blade carrying head to be adjusted so as to effect a cut at any corner of a sheet such as a coupon carrying bond.

Under normal conditions, spring 22 maintains hand lever 17 in its elevated position, and, consequently, the blade carrying head is maintained at its upper limit of movement or in the position illustrated in Fig. 1. The bonds from which the coupons are to be cut are positioned on the block 12 directly beneath the cutting head and the position of the latter and the blade carried thereby is adjusted by proper manipulation of screw 33 and which latter engaging in one of the recesses 34 locks the blade carrying head in its adjusted position.

As hand lever 17 is swung downward, link 21 will move plunger 15 downward through bearing 14 and, consequently, forcing the edge of the blade 30 through the sheets positioned on block 12 with the result that the coupons are cut along two edges, thereby separating the same from the bodies of the sheets or coupons, and at the same time moving the cut coupons away from said sheets, which last action results from the arrangement of the beveled edges 32.

A machine of my improved construction is comparatively simple, is capable of being cheaply produced, and provides efficient means for rapidly cutting coupons, or the like, from sheets such as bonds.

I claim—

In a coupon cutting machine, a base, a bracket projecting upwardly therefrom, a plunger mounted for vertical sliding movement through said bracket, means for moving said plunger downwardly, a block mounted for rotation in a horizontal plane on the lower end of the plunger, a blade removably carried by said block, which blade is provided with cutting edges disposed at right angles to each other, the lower portion of the plunger having four recesses disposed substantially 90 degrees apart, and a set-screw seated in the block adapted to be projected into any one of said recesses so as to lock the block in any one of four predetermined positions and means for holding the cutting block during the time when the set screw is loosened.

In testimony whereof I hereunto affix my signature this 15th day of May, 1920.

HENRY N. HEILMAN.