F. J. MATYCH.

STEREOTYPE PLATE CUTTER.

APPLICATION FILED DEC. 27, 1909. RENEWED DEC. 21, 1911.

1,016,347. Patented Feb. 6, 1912.

Fig. 1.

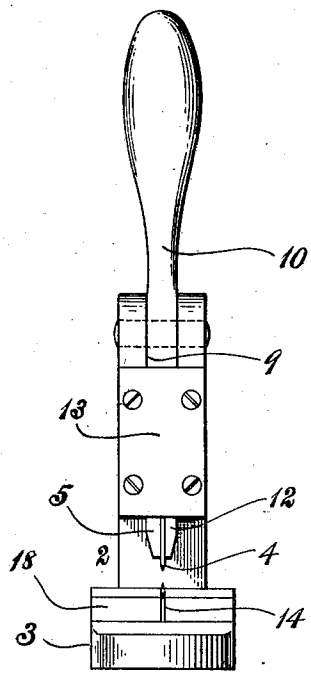


Fig. 2.

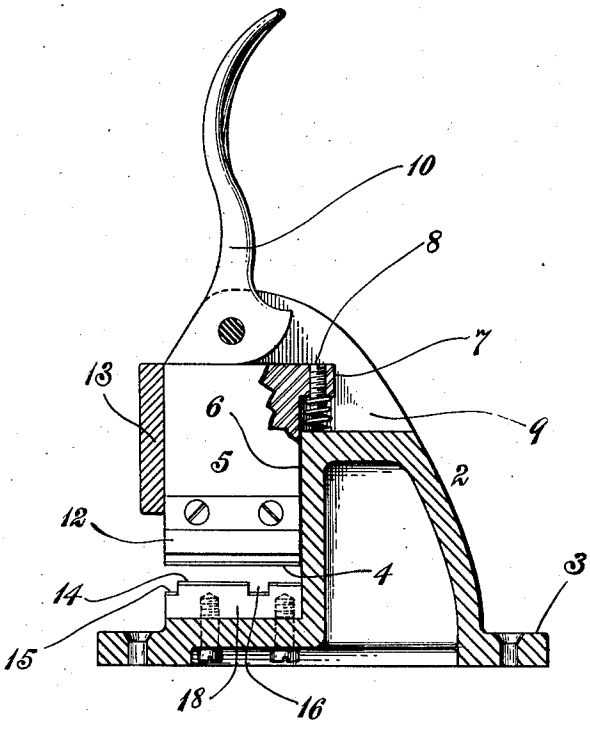
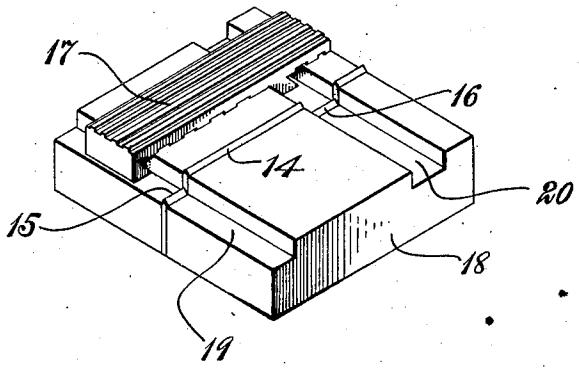


Fig. 3.



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STEREOTYPE-PLATE CUTTER.

1,016,347. Specification of Letters Patent. Patented Feb. 6, 1912.

Application filed December 27, 1909, Serial No. 535,174. Renewed December 21, 1911. Serial No. 667,211.

To all whom it may concern:

Be it known that I, FREDERICK J. MATYCH, a citizen of the United States, residing at Middletown, in the county of Middlesex and State of Connecticut, have invented certain new and useful Improvements in Stereotype-Plate Cutters, of which the following is a specification.

This invention relates to stereotype-plate cutters, the object of the invention being to provide a simple and effective device of this type which can make a clean cut between the lines of the plate and without waste.

The implement possesses other features of advantage which with the foregoing will be set forth at length in the following description where I disclose that form of embodiment of the invention which I have selected for illustration in the drawings accompanying and forming part of the present specification. I do not restrict myself to the exact showing made by said drawings and description for certain variations may be adopted within the scope of my claims succeeding said description.

Referring to said drawings, Figure 1 is a front elevation of a stereotype-plate cutter involving my invention. Fig. 2 is a vertical sectional view of the same with a portion of the upper knife-block removed, and, Fig. 3 is a detail view in perspective and on an enlarged scale of the anvil.

Like characters refer to like parts throughout the several views.

The different parts of the device may be mounted in any desirable manner and as a suitable means for this purpose I have shown a standard or frame 2 provided with a widened or enlarged base or foot 3 perforated as represented for the passage of screws or other suitable fastening means by which the device can be attached to a suitable foundation.

The implement comprises two knives or cutters and these score the plate on opposite faces thereof, the scores being superposed and the cutting edges of these knives or cutters are preferably quite acute or sharp so that the knives can so cut between two adjacent lines as not to mar or injure either; then also there is no waste. The knives or cutters may be mounted in any desirable manner. In the present case the upper knife 4 is connected with a carrier 5 which as shown consists of a substantially rectangular block supported for vertical sliding movement by the upper portion of the standard 2, the latter having a slot or aperture 6 to receive said carrier or block. Said carrier or block 5 is shown equipped with a rearward projection 7 at its upper rear corner and through the same is tapped a screw 8 constituting a suitable adjustable stop and which is coöperative with the bottom of the branch or offset portion 9 of the slot 6 for the purpose of limiting the downward movement of the block or carrier 5. This screw as will be clear may be manipulated to regulate the amount of downward movement of the block or carrier 5. I should state that it is not my purpose to have the coacting knives or cutters cut entirely through the stereotype but only partially therethrough, the plate being afterward broken along the scored lines and by providing adjustable means as set forth I can adapt the device to plates which vary in thickness. In the cases of certain plates I should prefer to make deeper cuts thereinto than with others and vice versa, and by providing the screw 8 this is possible.

As a means for forcing down the carrier or block 5 and therefore the upper cutter 4 I have shown a cam-lever 10 which is pivoted near its cam end between the sides of the upper portion of the standard 2 and when said lever is swung down the cam portion thereof forces down the block 5 until the screw 8 strikes the bottom of the aperture 9. To elevate said block 5 a spring is provided and the coiled spring 11 answers satisfactorily this purpose the same encircling the screw or pin 8 and bearing against the projection 7 and the bottom of the aperture 9. When the block 5 is thrust down as set forth this spring is compressed so that it becomes effective when pressure on the lever 10 is removed, to promptly elevate the block or carrier 5. The length of the knife 4 equals substantially the width of the carrier 5 and that of the slot 6, said knife being held to the block 5 by a clamping-member 12 constituting a part of said block the latter being held in place in the slot 6 by a cover-plate 13 attached by screws or otherwise to the standard 2.

The lower knife or cutter is designated by

14 and in practice and as illustrated it is disposed exactly opposite the upper knife or cutter 4. While the cutting edge of the latter is straight and continuous or unbroken this is not the case with the cutting edge of the lower knife or blade, said last mentioned cutting edge being interrupted or recessed. In the present case the cutting edge of the said lower knife or blade 14 has a rabbet 15 at one end and a slot 16 near the opposite end the said rabbet or cutaway portion 15 and slot 16 being intended to receive the ribs or fins on the underside of the stereotype plate 17 as shown in Fig. 3. The bottom portion of this rabbet 15 and slot 16 are sharpened to present straight cutting portions in parallelism with the cutting edge of the upper knife or cutter 4 so that when pressure is applied to the plate in a downward direction the ribs or fins of the plate will be also scored.

The lower knife or blade 14 is connected with an anvil 18 which as represented consists of two complemental or duplicate members fastened suitably to the upper side of the base of the standard 2, for instance by means of screws and the lower knife or blade is firmly clamped between the sections of said anvil 18. The anvil 18 has in its upper face a rabbet 19 which registers substantially with the rabbet 15 in said lower blade and it also has a groove 20 which practically registers with the slot 16 in said blade 14. The cutting portions of said rabbet 15 and slot 16, however, extend above the bottoms of the rabbet 19 and groove 20, respectively, a distance equaling the amount of maximum cut to be made by the knife 14 so that I insure that the ribs or fins of the plate will be cut the requisite amount. It will be also understood that the major portion of the cutting edge of the knife or blade also extends a like distance above the upper surface of the anvil 18.

Normally the carrier or block 5 is up as shown in Figs. 1 and 2. When it is desired to cut a stereotype-plate the latter with its fins or ribs down is placed over the anvil 18 with said ribs in the several described rabbets or slots, the lower face of the plate including the ribs resting on the cutting portion of the knife or cutter 14. The upper knife 4 is then depressed in the manner already set forth until the stop 8 strikes the bottom of the slot 9, at which point the lever 10 is released and is returned to its original position by the power of the spring 11. The plate is then removed and it will be seen that its opposite faces have score lines, which produces a weakened portion and by which the plate can be easily broken and in a thoroughly clean and even manner.

What I claim is:

1. A stereotype plate cutter comprising a pair of scoring knives, the scoring edges of which are opposite each other, one of said knives having its scoring edge interrupted and the scoring edge of the other being straight one of said knives being movably mounted.

2. A stereotype plate cutter comprising a pair of scoring knives, the scoring edges of which are opposite each other, one of said knives having its scoring edge interrupted the scoring edge of the other being straight and one of said knives being movably mounted combined with means for positively preventing the scoring edge of the movable knife coming into contact with the scoring edge of the companion knife.

3. A stereotype plate cutter comprising complemental scoring knives, the scoring edges of which are opposite each other, one of the knives having an interrupted portion having a cutting part the scoring edge of the other knife being straight.

4. A stereotype plate cutter comprising a stereotype - plate - supporting - anvil, and a scoring knife in coöperative relation with said anvil recessed to receive the ribs of the plate on said anvil, a second scoring knife, the scoring edge of which is opposite the scoring edge of the first mentioned knife, the bottoms of the recesses of the latter having rib scoring portions in parallelism with the scoring edge of the second knife, and means for operating said second knife.

5. A stereotype-plate cutter comprising an anvil in sections, a knife clamped between the sections of said anvil, the anvil and knife having registering recesses to receive the ribs of a stereotype plate and a second knife, the cutting edge of which is opposite the cutting edge of the other knife, the bottoms of the recesses of the first knife having straight cutting portions in parallelism with the cutting edge of the second knife.

6. A stereotype-plate cutter having a stereotype plate supporting anvil recessed to receive the ribs of the said plate, a knife supported by said anvil also recessed to receive the same ribs, a second knife, the cutting edge of which is opposite the cutting edge of the first mentioned knife and movably mounted, and means for limiting the motion of the second knife to prevent the same cutting entirely through the plate.

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

FREDERICK J. MATYCH.

Witnesses:
JOHN GILLIGAN,
JOHN FITZGERALD.