

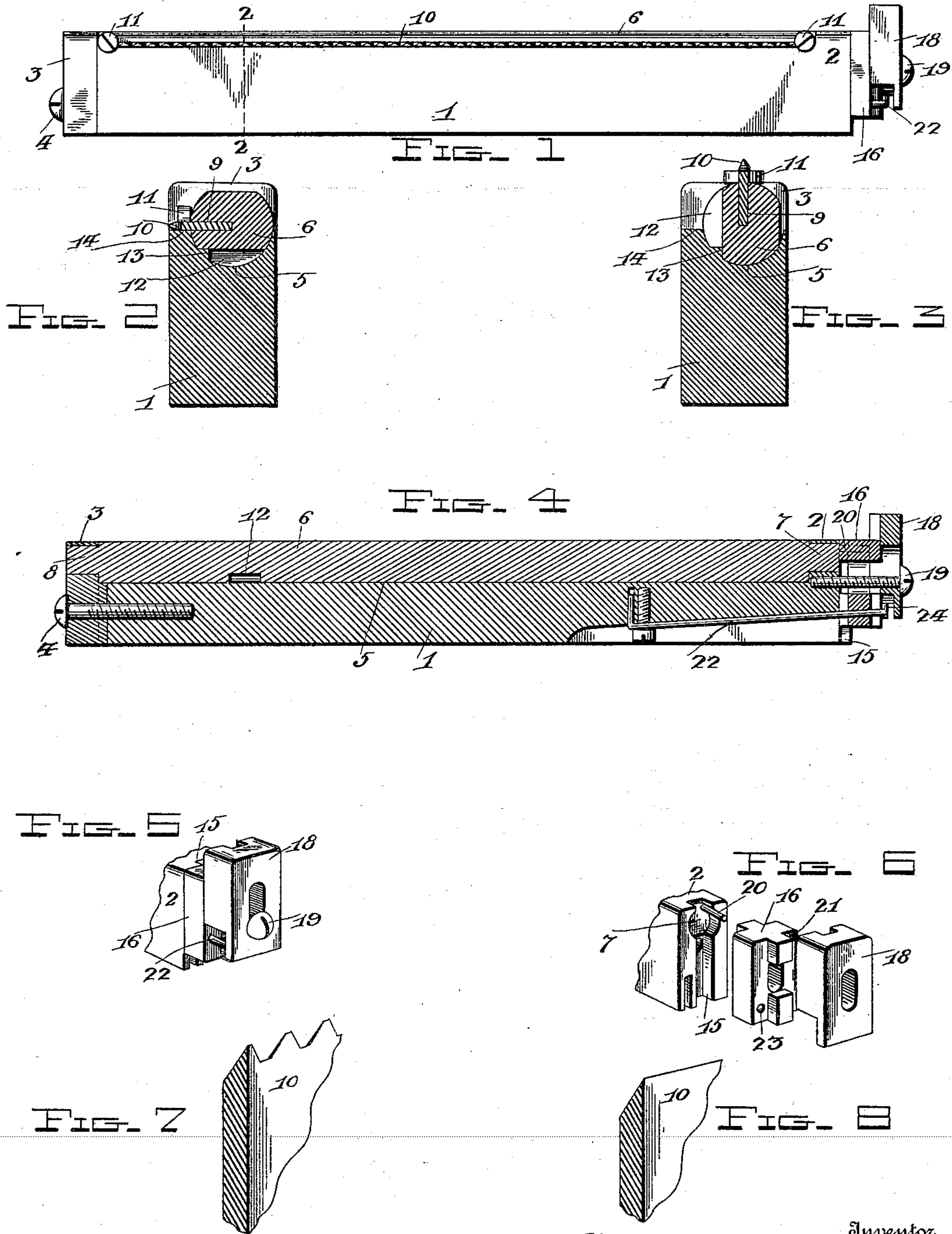
No. 637,808.

Patented Nov. 28, 1899.

C. A. MEADOWS.  
SCORING RULE.

(Application filed Mar. 18, 1899.)

(No Model.)



Witnesses

D. L. Ferris,  
J. H. Miller

Inventor  
Charles A. Meadows,  
by  
A. B. Wilson & Co.  
Attorneys



# UNITED STATES PATENT OFFICE.

CHARLES A. MEADOWS, OF YONKERS, NEW YORK.

## SCORING-RULE.

SPECIFICATION forming part of Letters Patent No. 637,808, dated November 28, 1899.

Application filed March 18, 1899. Serial No. 709,575. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES A. MEADOWS, a citizen of the United States, residing at Yonkers, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Automatic Non-Inking Press-Perforators and Scoring-Rules; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to non-inking perforating or scoring rules for printing presses; and the object is to provide a simple and effective device for perforating or scoring the sheet while being printed without inking the perforating or scoring blade.

To this end the invention consists in the construction, combination, and arrangement of the several parts of the device, as will be hereinafter more fully described, and particularly pointed out in the claims.

In the accompanying drawings the same reference characters indicate the same parts of the invention.

Figure 1 is a side elevation of my improved non-inking perforating-rule. Fig. 2 is a transverse section on the line 2 2 of Fig. 1. Fig. 3 is a similar view with perforating-blade in position for taking the impression. Fig. 4 is a longitudinal section. Fig. 5 is a detail perspective view of the operating end of the rule. Fig. 6 is a similar view with the movable parts separated. Figs. 7 and 8 are enlarged detail sections of the perforating and scoring rules.

1 denotes a solid metal block formed at one end with a shoulder 2 and provided at the other end with a counterpart shoulder 3, removably secured thereto by the set-screw 4. The upper edge of the block, between the two shoulders, is formed with a longitudinal semi-circular groove 5 to receive the oscillating shaft 6, the axial journals 7 and 8 of which have a bearing in the shoulders 2 and 3, respectively. This shaft 6 is provided with a radial longitudinal slot 9, in which the interchangeable perforating or scoring rule 10 is removably secured by means of the set-screws 11 11. 12 denotes a recess formed in said shaft, and 13 is a limit-shoulder formed on the block, so arranged that when the rule is in

the position shown in Fig. 3 the flat wall of the recess 12 abuts against the shoulder 13 to limit the movement of the rule in one direction, its movement in the other direction being limited by the rule resting upon the upper edge 14 of the block, as shown in Fig. 2.

The outer face of the shoulder-block 2 is formed with a vertical groove 15 to receive the tongue of the follower-block 16, the outer face of which is also provided with a second tongue to receive the grooved plunger 18. This plunger and the follower-block 16 are each provided with aligned slots to receive the retaining-screw 19, by means of which they are secured to and have a limited vertical movement with reference to the shoulder-block 2.

20 denotes a longitudinal pin fixed in the end of the shaft 6 eccentric to its axis. This pin extends through the elongated journal-bearing in the shoulder 2 and enters an orifice 21 in the follower-block 16, so that as the follower-block is depressed the perforating or scoring rule will be thrown into the position shown in Fig. 3.

22 denotes a spring secured in the longitudinal groove formed in the bottom face of the block 1 and its free end extending through an orifice 23 in the follower-block, and it terminates in a lateral finger 24, which has a torsional engagement with the lower slotted end of the plunger.

The operation is as follows: When the rule is locked up in the form or chase, the blade or rule is in the position shown in Fig. 2. Consequently its edge is below the level of the type, so that the inking-roller will pass over the face of the type without inking the rule. When, however, the platen and form come together in the act of taking an impression, the platen first strikes the plunger, carrying with it the follower-block, which turns the shaft 6 one-quarter of a revolution and throws the rule at a right angle to its normal position. When the follower-block has completed its stroke and "set" the rule, the plunger has still about one-eighth of an inch to complete its stroke, and this is compensated for by the torsional action of the spring, the spring first acting by direct tension on the follower-block and plunger and then allowing the plunger to complete its movement through the tor-



sional energy of the spring through the medium of its lateral arm. This arrangement permits a "clearance" between the edge of the rule and the platen when in perforating position to prevent possible binding on the impression.

It will be noted that the perforating or scoring rule instead of being beveled equally on each side, as is the usual case, is beveled on one side only, so that the roller in reversing will withdraw the teeth from the perforation without moving the perforated paper.

On cylinder-presses the action is practically the same as on platen-presses, the plunger being actuated by the impression of the cylinder.

Of course it will be understood that the rule at no time comes in contact with the inking-rollers. Consequently they are not cut up or damaged, as would be the case in the ordinary fixed rule, which projects above the face of the type and which is also inked the same as the type after each impression.

The accompanying drawings show my invention in the best form now known to me; but many changes in the details might be made within the skill of a good mechanic without departing from the spirit of my invention as set forth in the claims at the end of this specification.

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

1. The base-block 1 provided with a bearing-shoulder 2 and a limit-shoulder 13, in combination with a removable shoulder 3, the longitudinal shaft 6 formed with the longitudinal slot 9, recess 12 and journals 7 and 8, and journaled in said shoulders 2 and 3, the blade 10 removably secured in said slot, and means for oscillating said shaft on its axis, substantially as and for the purpose set forth.

2. The base-block 1, the shaft 6 journaled therein and capable of a quarter-circle movement on its axis, the rule-blade carried by said shaft, and the longitudinal pin 20 fixed to said shaft, in combination with the spring-actuated follower-block 16 formed with an orifice 21 to receive said pin 20, substantially as and for the purpose set forth.

3. The base-block 1, the shaft 6 journaled therein, and the pin 20 carried by said shaft, the follower-block 16 formed with the orifice 21, the platen-operated plunger 18, and the spring 22 fixed to the base-block and adapted to restore the plunger and follower-block to their normal positions, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHAS. A. MEADOWS.

Witnesses:

DAN C. NOLAN,  
MICHAEL F. MITCHELL.