

W. D. ELGER.
CHECK PUNCH.

No. 464,498.

Patented Dec. 8, 1891.

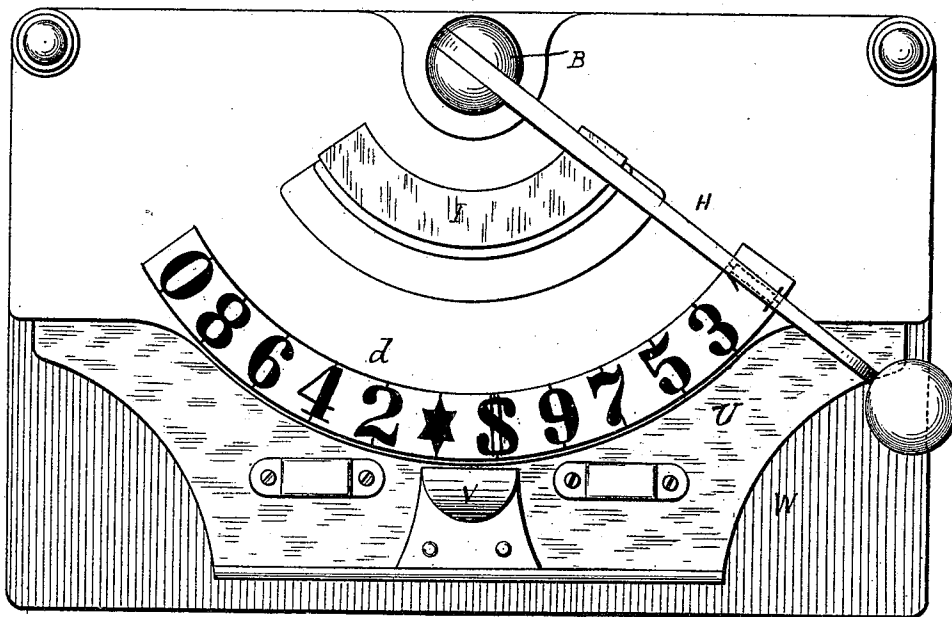
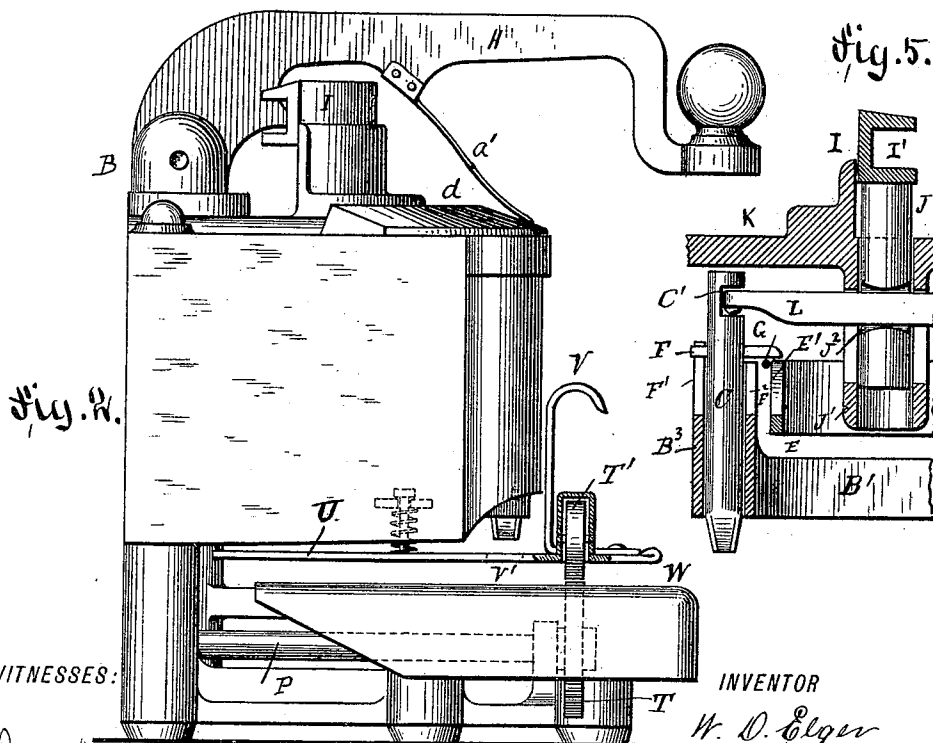


Fig. 1.



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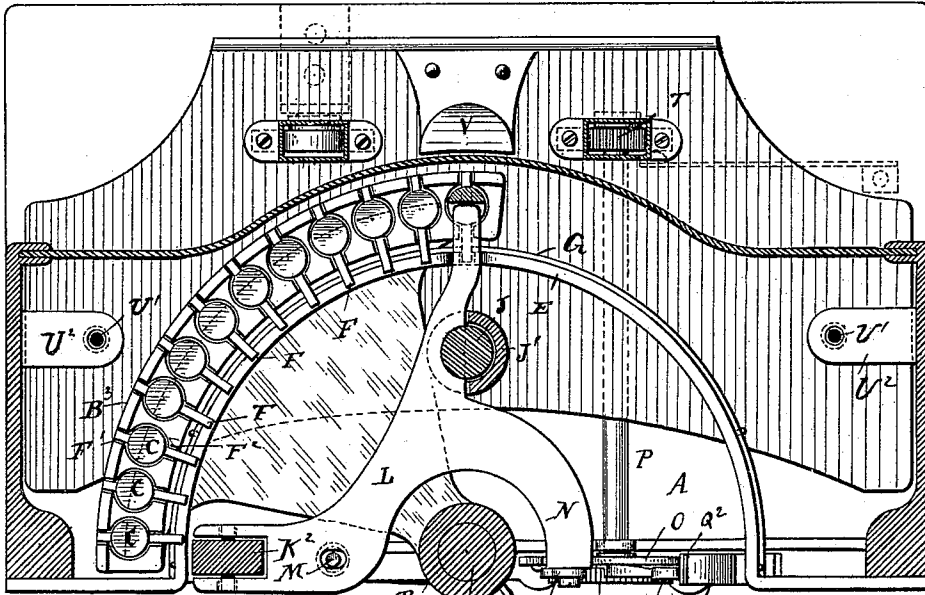


Fig. 4.

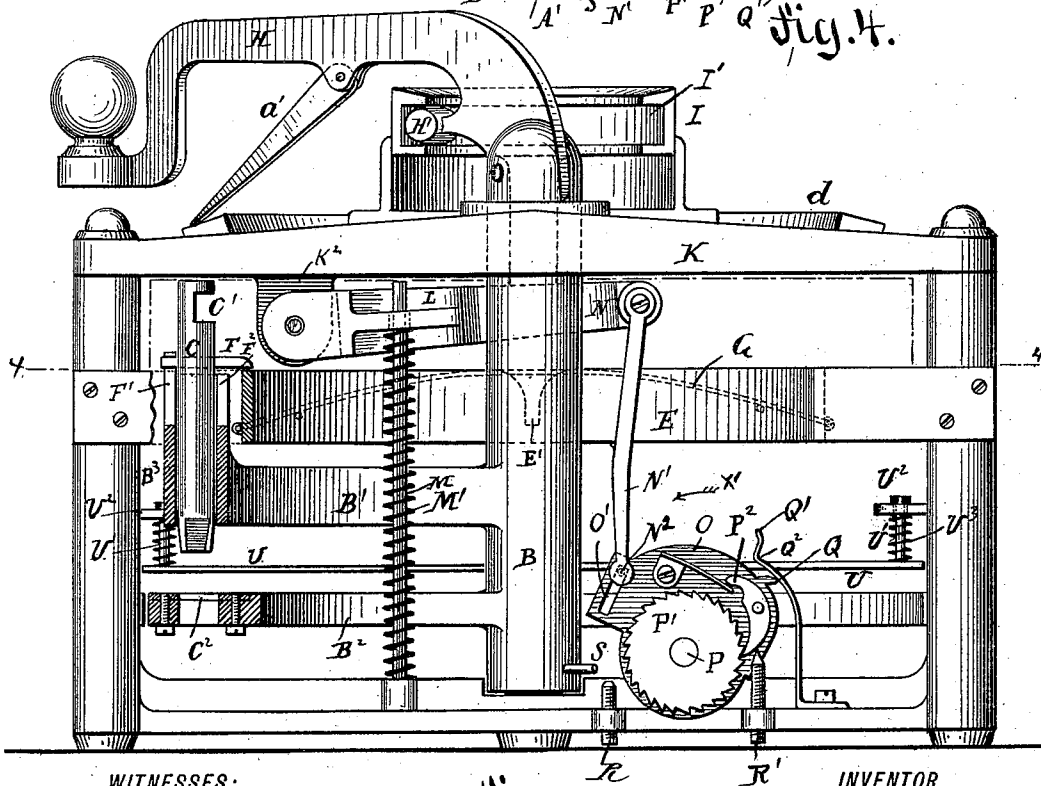


Fig. 3.

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CHECK-PUNCH.

SPECIFICATION forming part of Letters Patent No. 464,498, dated December 8, 1891.

Application filed January 12, 1891. Serial No. 377,570. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM D. ELGER, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Check-Punches, of which the following is a specification.

This invention relates to improvements in that class of devices that are used for perforating checks or other papers representing value, so as to prevent alteration of the same.

The object of my invention is to provide a check-punch of this kind which is simple in construction, not apt to get out of order, and which is so constructed that different punches may be brought into proper position very rapidly.

The invention consists in the construction and combination of parts and details, as will be fully described hereinafter, and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a plan view of my improved check-punch. Fig. 2 is an end view of the same, parts being in section. Fig. 3 is a rear view, parts being in section. Fig. 4 is a sectional view on the line 3 3, Fig. 4. Fig. 5 is a detail cross-sectional view of the parts.

Similar letters of reference indicate corresponding parts.

The base-plate A is provided at its rear edge with a standard A', on which the sleeve B is mounted to turn, said sleeve being provided with two segmental-shaped brackets B' and B², one above the other. In said bracket B² a segmental row of dies C² are mounted and in the bracket B' a segmental row of duplicate cylindrical punches C are mounted, each provided with a notch C' at its upper end.

To the rear corner standards B of the base-plate a semicircular curved track-bar E is secured, which is provided at its center with a notch E', as shown in dotted lines in Fig. 3, the said curved bar E being adjacent to the inner edge of the upwardly-projecting part B³ of the bracket B', in which part B³ the punches C slide. Each punch is provided with a transverse pin F of such length that the inner end of said pin can rest upon the upper edge of the curved bar E. Said pins F can pass into notches F' and F² in the upwardly-projecting part B³ of the bracket B',

the outer edge of said part B³ being higher than the inner edge, so that when the punches are in their highest positions the outer ends of the pins F will always remain in the upper parts of the corresponding notches F', whereas the inner longer ends of the pins are above the notches, as shown in Fig. 3. A spring-wire G (shown in dotted lines in Fig. 4) is secured to that face of the curved part of the bar E facing the inner edge of the part B³ of the bracket B' in such a manner that the central part of said wire extends to the top edge of the curved bar E and forms a bridge over the top of the notch E', so that when the brackets B' N² are turned on the standard A and the pins F of the several punches arrive at said notch E they will not drop into the same, but are carried or supported by said bridge-wire while passing over the notch. The punches C are not kept in raised position by the springs, but only by the pin F, resting on the top edges of the curved bar E. The actuating and selecting lever H is pivoted to the upper edge of the sleeve B and is provided with an arm H', traveling in a groove I' in the inner edge of the segmental piece I, from which a pin J, Fig. 5, projects downward and is guided in a suitable sleeve K' in the top plate K of the apparatus. The said pin J has a notch J², through which one arm of a curved lever L passes, which lever is pivoted to a lug K², projecting downward from the outer part of the cover-plate K. The front end of the arm L can pass into the notches C' of the several punches C. By depressing the selecting and operating lever H the segmental piece I and its pin J are forced downward and in turn swing down the lever L, and as the end of the same is in one of the punches it forces down the corresponding punch. The end of the lever L that enters the notches C' is directly over the notch E' in the curved bar E, and thus it is evident that whenever the lever H is depressed only that punch is forced down which is at the notch E'. When the punch is forced down, the bridge-wire G gives sufficiently to permit of such downward movement. When the selecting-lever is released, it is pushed upward by the action of a spring M, surrounding a rod M', projecting upward from the base. Said spring, acting on the arm L, swings the same upward. The arm L raises

the lowered punch and also presses up the pin J of the segmental piece I, thereby raising the selecting-lever. The arm L is provided with a curved arm N, to which a connecting-rod N' is pivoted, the lower end of which is provided with a pin N², that passes through a slot O' in a plate O, mounted to rock on the shaft P, carrying the ratchet-wheel P'. A pawl P², pivoted on the plate A and acted upon by a suitable spring, engages the teeth of the ratchet-wheel P'. The plate O is provided with a cam Q, on which a bent spring-strip Q' can act, that is secured on the base-plate of the machine. An adjustable stop R prevents the plate O from being swung down too far, and the adjustable stop R' prevents it from being raised too far, said stop coming in contact with the end of the pawl P² and pressing the same against the teeth of the ratchet-wheel P', thereby preventing over-turning or overfeeding by the said ratchet-wheel. The sleeve B is provided with a pin S at its lower end. When the punch for the numeral 1 is at the notch E', the pin S is in such a position that the plate O will strike the same before it can strike the stop-pin, thus causing the pawl to catch less teeth of the ratchet-wheel, so that the feed will be less—that is, the shaft P, which is the feeding-shaft, will not be rotated as far as when the plate O can swing down to the stop-pin R. The numeral 1 occupies less space in the check than the others, and for this reason the check must not be fed as great a distance after the numeral 1 has been punched as it must be fed or shifted after any other numeral has been punched.

On the front end of the shaft P the feed-wheel T is mounted, which passes through a slot of the base-plate, and on said feed-wheel the idle-wheel T' rests, which is pivoted in a vertically-movable plate U, guided by the pins U', projected from the top of said plate and upward through lugs U², projecting from the inner sides of the casing of the apparatus, said pins being surrounded by springs U³, which press the plate U downward. At the front of the casing a hook-bar V projects upward from the plate U and is used for raising said plate sufficiently to permit of inserting the check between the plate U and the check-receiving plate W. Said plate U has an aperture V', through which the punches can pass. On the arm H a pointer a' is arranged, said pointer being made of spring material, as shown in Fig. 2, or it is pivoted, as in Fig. 3, and its lower end is directly over the segmental numeral-plate d on the top of the casing and can slide over the same.

To punch a check, the same is placed on the plate W and the lever H is shifted until the pointer a' is on the desired numeral on the plate d. That punch corresponding to the number or character to which the pointer a' points will then be directly in front of the notch E', and if the lever H is forced downward said punch will be forced through the

check. When the handle-lever H is forced downward, the lever L is also forced downward and the rod N is moved downward. When the pin N² on the lower end of the rod N' strikes the lower end of the slot O', the plate O is turned in the direction of the arrow x', Fig. 3, whereby the pawl Q is moved along the spring Q', and when said pawl arrives at the bend Q² of said spring Q' said spring suddenly throws the plate O in the direction of the arrow x', thereby insuring that in every case the plate O is turned sufficient for the pawl P² to grip the necessary number of teeth requisite for the proper feed. When the handle-lever is released and forced upward by the spring M, the rod N' is also moved upward, the plate O is swung in the inverse direction of the arrow x', and the pawl P² engaging the teeth of the ratchet-wheel P' turns the same in the inverse direction of the arrow x' until said pawl strikes against the adjustable stop R'. The feeding-wheel T is not turned until the pin H² strikes the upper end of the slot O', thus preventing the feeding of the check until the punch that has perfected the check has been withdrawn entirely clear of said check.

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

1. In a check-punch, the combination, with a movable punch-holding frame, of punches in the same, pins on said punches, a track-bar on which said pins can rest, which track-bar is provided with a notch in its upper edge to permit of depressing the punch at said notch, and a yielding bridge-piece extending across said notch and adapted to be pressed down by the pin of that punch located at the time being at said notch, substantially as set forth.

2. In a check-punch, the combination, with a swinging punch-holding frame, of punches in the same, pins in said punches, a curved notched track-bar on which said pins rest, and a spring-wire secured to the front of said track-bar and forming a bridge over the notch, substantially as set forth.

3. In a check-punch, the combination, with a swinging frame having a segmental upwardly-projecting part provided with apertures for guiding the punches, the front edge of said upwardly-projecting part being higher than the rear edge, of a notch in the said front and rear edges at each punch-guiding aperture, punches mounted to slide in said apertures, pins projecting from said punches and passing into the notches to prevent the punches from turning axially, and a track-bar on which said pins can rest, substantially as set forth.

4. In a check-punch, the combination, with an actuating and selecting lever, of dies and punches, a feed-wheel, a ratchet-wheel on the feed-wheel shaft, a plate O, mounted on the feed-wheel shaft and provided with a slot O', the connecting-rod N, provided with a pin

passing over said slot O', which rod N' is operated from the selecting and actuating lever, and a pawl on said plate O, engaging the ratchet-wheel, substantially as set forth.

- 5 5. In a check-punch, the combination, with an actuating and selecting lever, of dies and punches, a feed-wheel, a ratchet-wheel on the feed-wheel shaft, a plate O, mounted on the feed-wheel shaft and provided with a slot O',
10 a connecting-rod N, provided with a pin passing through said slot O', which rod N is operated from the selecting and actuating lever, a pawl pivoted on said plate O, engaging the ratchet-wheel, and a check-screw R',
15 adapted to act on said pawl, pivoted on the plate O, substantially as set forth.

6. The combination, with a swing-frame

carrying punches and dies, of an actuating and selecting lever, a pin projecting from said swinging frame, a feed-wheel, a ratchet-wheel on the feed-wheel shaft, a swinging plate on said feed-wheel shaft, and a pawl on said plate, which swinging-plate can strike against the pin projecting from the swinging frame and carrying the punches, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

WM. D. ELGER.

Witnesses:

OSCAR F. GUNZ,
JOHN ALONZO STRALEY.