

(No Model.)

H. MYERS.
TICKET PUNCH.

No. 386,437.

Patented July 17, 1888.

Fig. 1.

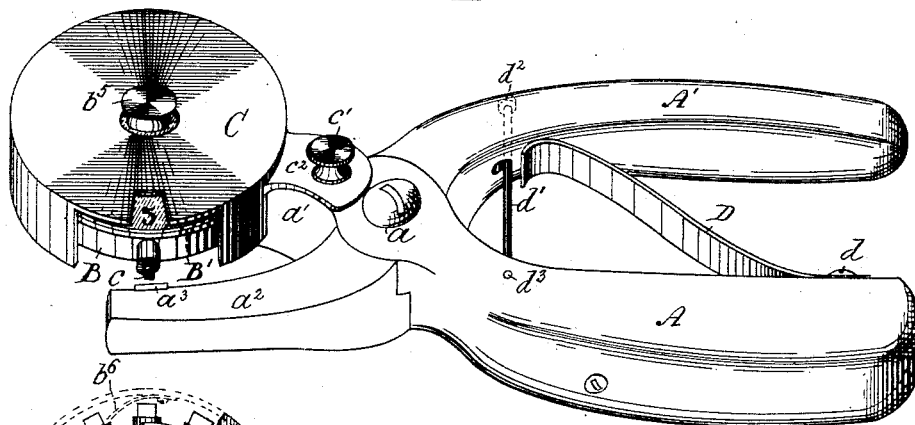


Fig. 2.

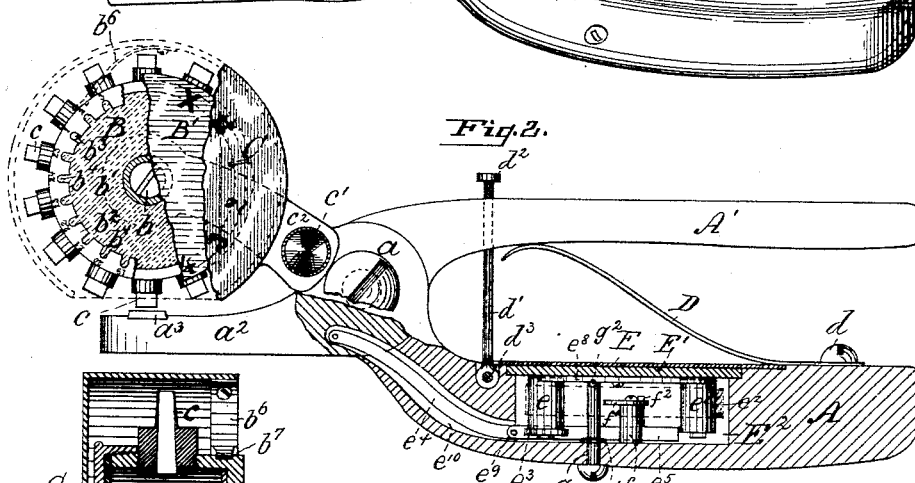


Fig. 3.

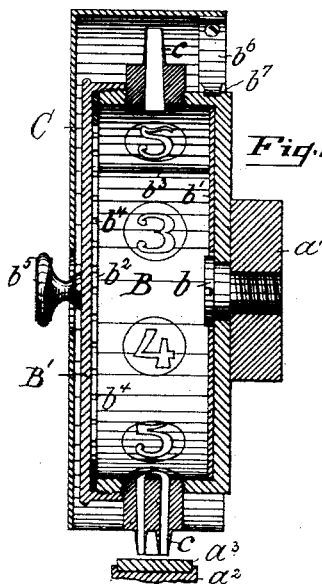


Fig. 4.

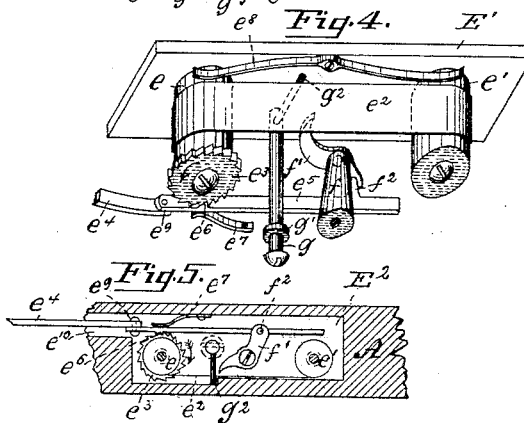
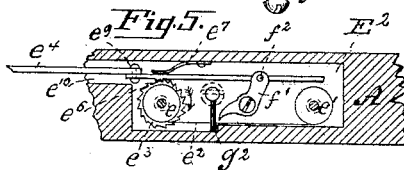


Fig. 5.



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HENRY MYERS, OF PHILADELPHIA, PENNSYLVANIA.

TICKET-PUNCH.

SPECIFICATION forming part of Letters Patent No. 386,437, dated July 17, 1888.

Application filed March 3, 1888. Serial No. 266,046. (No model.)

To all whom it may concern:

Be it known that I, HENRY MYERS, a subject of the Emperor of Germany, but now residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Registering and Collecting Punches, of which the following is a specification.

The principal object of my invention is to provide a hand-punch of comparatively simple construction for various purposes, but more particularly designed for use by collectors of moneys where goods are sold on the installment plan and payments are made from time to time by the purchaser, the punch being of the type in which all clippings from cards or analogous articles are preserved therein.

A further object of my invention is to provide the punch with mechanism, operating automatically or otherwise, whereby an accurate record will be had of each time the same is used; and a further object of my invention is to provide the punch with means by which it may be easily set so that tampering therewith may be readily detected.

The characteristic features of my invention will be more particularly understood by reference to the accompanying drawings and to following description thereof.

Figure 1 is a perspective view of my improved registering and collecting punch. Fig. 2 is an elevation of the punch, partly in section, showing the registering mechanism in one of the handles thereof, and the rotary hollow cylinder for collecting the clippings and the dies in the peripheral surface of the cylinder, the inclosing cap-plate of the cylinder, and the setting mechanism in said cylinder. Fig. 3 is a cross-section through the rotary cylinder with its dies and the inclosing cap-plate and mechanism for setting the punch, so that tampering therewith may be readily detected.

Fig. 4 is a perspective view of the registering mechanism, and Fig. 5 is a plan view thereof.

Referring now to the drawings for a further description of my invention, A and A' are two handles made of suitable material and of any convenient form, these handles being pivoted to each other at *a*. The front extremity of the handle A has journaled to it a hollow cylinder, B, by means of a stud-screw, *b*. The

hollow rotary cylinder B has a cover, B', preferably screwed onto it, or the cover may be secured thereto in any other preferred manner. In the peripheral surface of the hollow cylinder B at suitable distances apart are secured hollow dies in the form of figures or other characters, these dies being constructed so that when brought in contact with a card or other analogous article the figure or character desired may be readily punched out and the clipping in the form of that figure or other character deposited in the hollow cylinder B.

The cover B' of the hollow cylinder B is provided with a milled knob, *b*⁵, and around the top surface of the cover near the outer periphery is arranged a series of numbers or characters corresponding with the dies arranged around the peripheral surface of the hollow cylinder B. The respective dies *c* are protected by a flanged cap-plate, C, which fits over the hollow cylinder B.

The cap-plate C is held in position by means of a curved arm, *c*², secured to the arm *a*¹ of the handle A by means of a thumb-screw, *c*¹. A flat or slightly-curved spring, *b*⁶, is secured to the surface of the cap-plate C, and the outer extremity thereof is provided with a projection or rib, which engages in one of a series of notches, *b*⁷, formed in the peripheral surface of the hollow cylinder B. This spring *b*⁶ is provided to hold the hollow cylinder B and its cover B' at all times in proper position for allowing the desired die when brought into position for use to be maintained in proper position above the anvil *a*² in the front extremity, *a*², of the handle A'. In the surface of the hollow cylinder B there will be provided as many notches *b*⁷ as there are dies in the peripheral surface thereof.

The knob *b*⁵ in the cover B' permits of the easy movement of the cylinder B to bring the desired die into position for use. To the extremity *a*² of the handle A' is mounted an anvil, *a*², made, preferably, of soft metal, so that the dies may not be injured by contact therewith.

In the interior of the hollow cylinder B is placed a disk, *b*¹, provided with a pin, *b*², which is located near the outer periphery thereof. A ring, *b*³, with a series of notches, *b*⁴, therein, is placed upon the edge of the hollow cylinder B and the pin *b*² caused to engage in one of

the notches b^4 of said ring. The notches b^4 , formed in the ring b^2 , may be numbered, as illustrated, for instance, in Fig. 2; or it may be provided with marks or symbols arranged around the top surface thereof. When the cover B' , holding the ring b^2 in position on the edge of the hollow cylinder B , is fitted to place thereon, with the pin b^3 in one of the notches b^4 of said ring, any tampering with the punch or the clippings deposited therein may be readily detected, because after the punch has once been set, if the person receiving it should attempt to remove the cover for the purpose of tampering therewith, the ring b^2 will immediately drop out unless very great care is exercised in its removal, thus rendering it almost impossible for the person to replace the pin b^3 in the notch it was previously in engagement with in the ring b^2 .

A flat-surfaced spring, D , made of suitable metal, is secured to the inner side of the handle A by means of a screw, d , and the opposite or slightly-curved free extremity bears against the inner side of the handle A' , whereby both of the jaws a' and a^2 of the handles A and A' may be kept a proper distance apart for use. A back-stop, consisting of a metal rod, d' , is pivoted in the handle A by means of a pin, d^2 , and the opposite extremity of the rod d' is provided with a collar, d^2 , whereby the extent of lateral movement or sweep of the handles A and A' may be regulated with certainty.

In the handle A is provided an oblong receptacle, E^2 , closed by a countersunk cover, E , and beneath the plate E is another plate, E' , which, together with the mechanism to be described, mounted thereon, may be lifted out of the receptacle E^2 . To the plate E' are journaled, by means of threaded studs, two rollers, e and e' , around which is caused to travel an endless paper strip, e^2 . A narrow strip or fillet of paper instead of an endless strip may be used, if desired, wound around, for instance, the roller e , with the end of the fillet of paper attached to the opposite roll, e' , and fed from one roll to the other by the mechanism in the handle A when the device or punch is actuated. To the roller e is attached a ratchet-wheel, e^3 , which is revolved by the bar e^5 , having a projection or tooth, e^6 , formed integral therewith, the tooth or projection e^6 being always in engagement with the ratchet-wheel e^3 by means of the spring e^7 , secured into the side of the handle A by means of a screw. Another projection, f^2 , preferably formed integral with the bar e^5 , is caused to engage with the oscillating pawl f' , pivoted to the stud-pin f . This pawl f' is constructed with a pointed free extremity for causing an impression or mark to be made on the paper by each operation of the punch. To the bar e^5 is imparted a backward-and-forward movement by means of a lever, e^4 , hinged thereto at e^8 . The lever e^4 is mounted in a narrow channel, e^{10} , provided in the handles A and A' to receive it, and is pivoted to the jaws a^2 of the handle A' , near the

hinge-joint of the handles A and A' , as shown in Fig. 2.

It will be seen by reference to Fig. 2 of the drawings that when the two handles A and A' are compressed the pawl f' will swing forward through the action of the lever e^4 , bar e^5 , and the projection f^2 , and thereby causing an indentation to be made in the paper e^2 ; but as soon as the handles A and A' are released and caused to assume the position illustrated, for example, in Fig. 1, through the action of the spring D , the bar e^5 will act conversely, causing the projection e^6 , formed with the bar e^5 , to engage in a tooth of the ratchet-wheel e^3 , and thereby winding up the paper onto the roll e from the roll e' and presenting the paper to the pawl f' for receiving another puncture or mark. A light bar spring, e^8 , is pivoted or otherwise secured to the plate E' , and the two free extremities thereof are caused to engage with the paper rolls e and e' . This spring e^8 performs the function of preventing the paper on the rolls e and e' from becoming slack, which, if it did, would prevent the pawl f' from performing its function of recording on the fillet or strip of paper e^2 a mark or puncturing the same each time the punch was used.

The arm g^2 is employed to detect any tampering with the above-described mechanism for registering the use of the punch. On a stud-pin, g , journaled in the walls of the handle A , is mounted a collar, g' . To this stud-pin is fitted an arm, g^2 , of sufficient length to reach over or above the upper edge of the strip or fillet of paper, e^2 , as shown, for instance, in Figs. 4 and 5, whereby if the registering mechanism be tampered with through the movement of the stud-pin g the paper will be torn by contact of the arm g^2 therewith, thereby rendering it possible to detect any tampering with the above-described mechanism; but if the arm g^2 be turned with care sideways the entire mechanism, with the paper, may be removed without destroying it.

The manner of operating my improved registering and collecting punch may be briefly explained in the following manner:

The device for setting the punch hereinbefore described, so that tampering with the hollow rotary cylinder B may be detected, having been arranged, the punch is then placed in the condition illustrated, for instance, in Fig. 1, with the inclosing cap-plate C presenting through a rectangular opening in the surface of the plate B' , for instance, the figure "5," and with the die 5 occupying a position between the cut-away portion of the flange of the cap-plate C , above the anvil a^3 , which may be brought into such a position by merely revolving the hollow cylinder B , provided with a series of such dies, c , by means of the thumb-knob b^2 , secured centrally into the cover B' of said hollow cylinder B , and hence the particular die desired may be readily moved into an operative position, as will be indicated by the appearance of the number indicating the die

required below the opening in the top of the inclosing cap-plate C. The card or other article to be punched may be inserted by the left hand between the die and with the back thereof resting on the anvil *e'*, and the handles A and A' brought together by the right hand, compressing to a greater or less extent the flat bar-spring D between the two handles, thereby punching out of the card the number "5," if that was the die brought into position for use, and depositing the clipping from the card through the hollow die *c* into the hollow cylinder B, and simultaneously with this operation by hand the lever *e'*, mounted in the channel *e''* in the handle A, and pivoted at *e''* to the bar *e'*, will be actuated, and thereby causing the projection *e'* of the bar *e'* to engage in a tooth of the ratchet-wheel *e'*, moving the same forward; as indicated by the arrow, on the surface of the ratchet-wheel *e'*, and at the same time the projection *f'* will cause the pawl *f'* to puncture the paper, thereby indicating that the punch has been used. Upon the release of the pressure exerted by the hand on the handles A and A' the spring D will assume its normal position between said handles, and the punctured card may then be readily removed from the punch. In the release of the pressure on the handles the bar *e'* will act conversely to that above described, causing the projection *e'* to turn the ratchet-wheel *e'* one notch, thereby moving the paper slightly forward from the roll *e* to the roll *e* and presenting the same to the pawl *f'*, while the spring *e'* will hold the paper being moved from becoming slack, in order that the pawl *f'* may perform its function with absolute certainty of action.

While I have described my invention in the best form known to me at the present time, still it is manifestly obvious that some of the parts may be modified without departing from the real spirit thereof.

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

1. In combination, a punch provided with two handles pivoted to each other, a hollow cylinder pivotally connected with the outer portion of one of said handles and provided with a series of dies, a recessed cap-plate mounted on said cylinder, and means, substantially as described, connected with said cap-plate and engaging with said cylinder to cause the same to be held in a fixed position, and an anvil-bar mounted in the outer portion of the opposite handle, substantially as and for the purposes set forth.

2. In combination, a punch provided with two handles pivoted to each other, a hollow cylinder pivotally connected with the outer portion of one of said handles and provided with a series of dies and a removable cover,

means, substantially as described, in said cylinder whereby tampering with the device may be detected, a recessed cap-plate surrounding said cylinder with a portion of its surface cut away, and a spring secured to said plate and engaging in notches formed in the surface of said cylinder, substantially as and for the purposes set forth.

3. In combination, a punch provided with two handles pivoted to each other, a hollow cylinder pivotally connected with the outer portion of one of said handles and provided with a series of dies, and a removable cover with characters arranged around the surface thereof, means, substantially as described, in said cylinder whereby tampering with the device may be detected, a cap-plate with a portion of its surface cut away inclosing said cylinder, a spring for holding said cylinder in a fixed position, and an anvil-bar mounted in the outer portion of the opposite handle, substantially as and for the purposes set forth.

4. In combination, a punch provided with two handles pivoted to each other, a hollow cylinder pivotally connected with the outer portion of one of said handles and provided with a series of dies and a removable cover, means in said cylinder whereby tampering with the same may be detected, a cap-plate with a portion of its surface cut away surrounding said cylinder, a spring attached to said plate and engaging in notches formed in the surface of said cylinder for holding the same in a fixed position, and means in said handles operating automatically to register the use and to indicate tampering with the device, substantially as and for the purposes set forth.

5. In combination, a punch provided with two handles pivoted to each other, a rod secured into one of the handles and extending through the body of the opposite handle and a collar mounted thereon, a spring secured to one of said handles and engaging with the opposite handle, a hollow cylinder secured to the outer portion of one of said handles and provided with a series of dies and a removable cover, means in said cylinder whereby tampering with the cylinder may be detected, an anvil-bar mounted in the outer portion of the opposite handle, and means, as described, in the handles, and actuated thereby, to register the use and to indicate tampering with the device, substantially as and for the purposes set forth.

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

HENRY MYERS.

Witnesses:

GEO. W. REED,
THOMAS M. SMITH.