No. 796,627. PATENTED AUG. 8, 1905.

G. M. BRADT.

REGISTERING CHECK HOLDER.

APPLICATION FILED OCT. 13, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

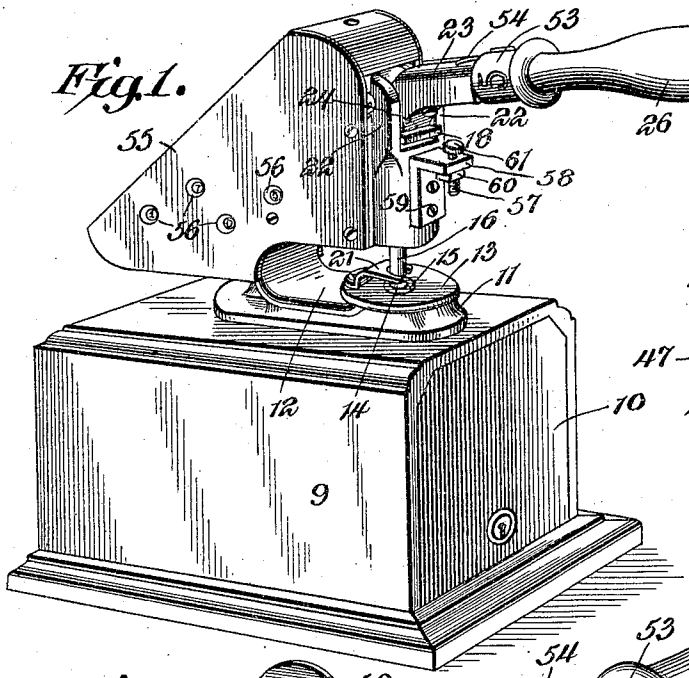


Fig. 7.

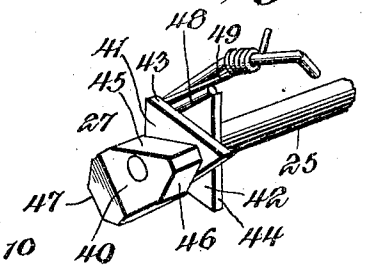


Fig. 2.

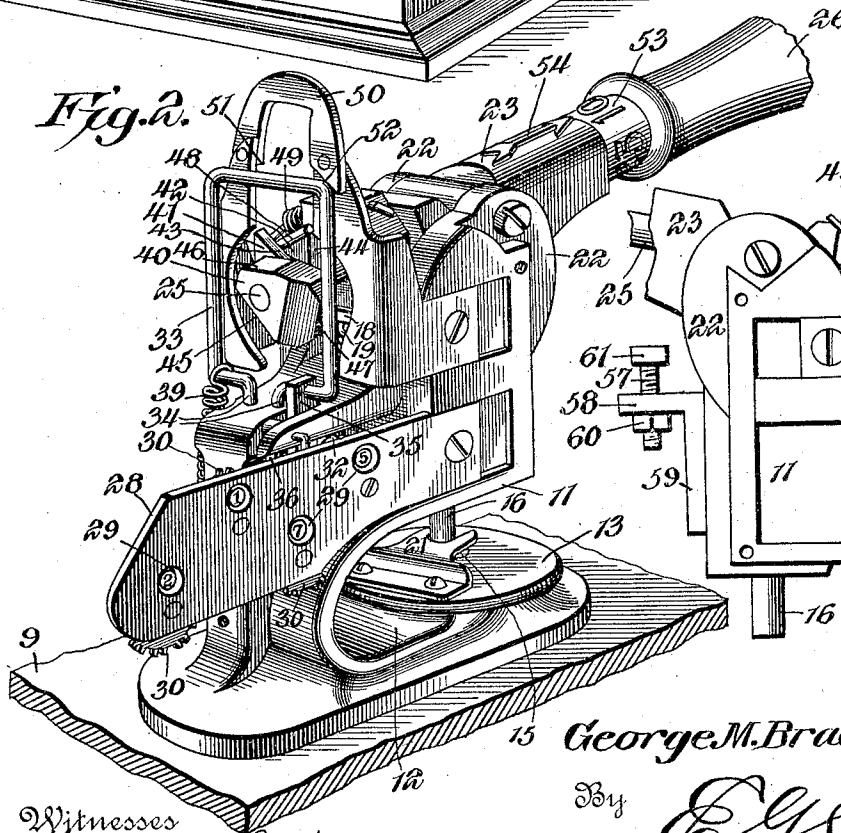


Fig. 9.

Witnesses
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2 SHEETS—SHEET 2.

Fig. 3.

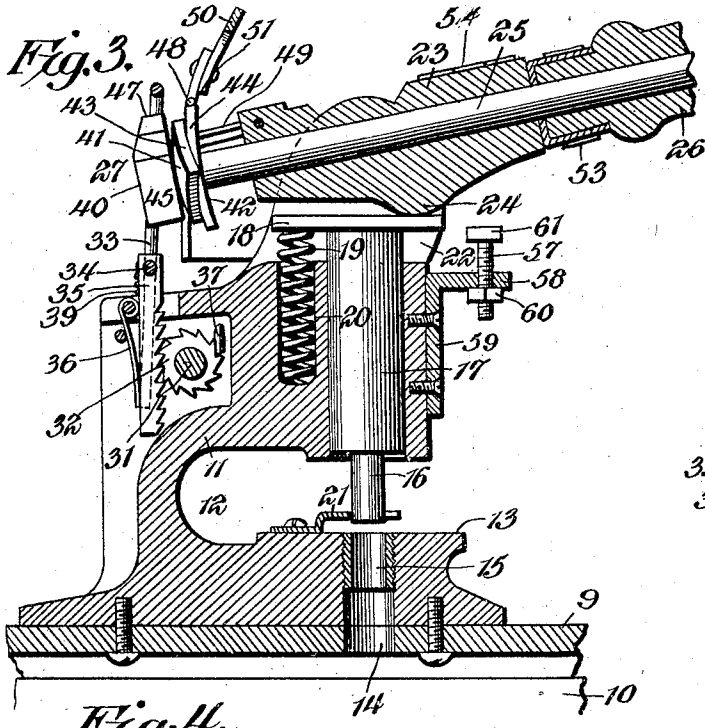


Fig. 5.

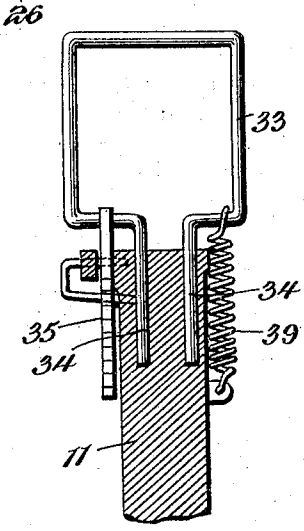


Fig. 4.

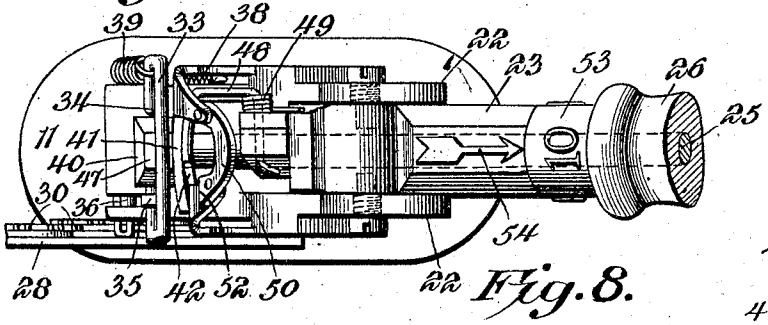


Fig. 8.

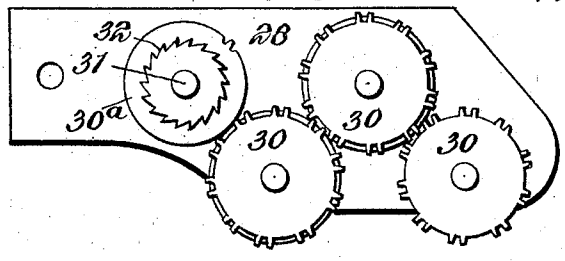
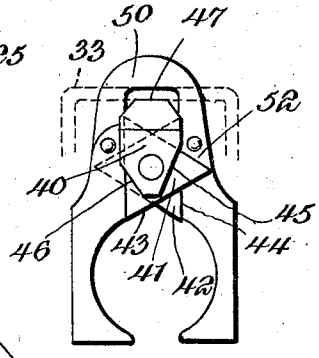


Fig. 6.



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UNITED STATES PATENT OFFICE.

GEORGE M. BRADT, OF CHATTANOOGA, TENNESSEE, ASSIGNOR TO NATIONAL CREDIT REGISTER COMPANY, OF CHATTANOOGA, TENNESSEE.

REGISTERING CHECK-HOLDER.

No. 796,627. Specification of Letters Patent. Patented Aug. 8, 1905.

Application filed October 13, 1904. Serial No. 228,307.

To all whom it may concern:

Be it known that I, GEORGE M. BRADT, a citizen of the United States, residing at Chattanooga, in the county of Hamilton and State of Tennessee, have invented a new and useful Registering Check-Holder, of which the following is a specification.

This invention relates more particularly to improvements in that class of punches employed in commissary stores for punching check-cards for various amounts, said punch registering the amounts punched from the cards.

The object is to provide simple mechanism of a novel nature which can be easily adjusted to register different amounts and wherein the punching-lever will have a fixed path of movement and the leverage thereof will always be the same.

The preferred embodiment of the invention is illustrated in the accompanying drawings and is described in the following specification. An inspection of the appended claims will clearly show, however, that the invention is not limited to the exact construction and arrangement illustrated, but is open to various changes and modifications.

In the drawings, Figure 1 is a perspective view of the punch complete. Fig. 2 is a perspective view of the mechanism with the casing-hood removed. Fig. 3 is a longitudinal sectional view through said mechanism. Fig. 4 is a top plan view of the same. Fig. 5 is a cross-sectional view more clearly illustrating the mounting of the actuating-yoke. Fig. 6 is a detail sectional view showing the cam member locked against rotation. Fig. 7 is a detail perspective view of said cam member. Fig. 8 is a rear elevation of the registering mechanism *per se*. Fig. 9 is a view in elevation of the opposite side of the mechanism to that shown in Fig. 2.

Similar reference-numerals indicate corresponding parts in all the figures of the drawings.

In the embodiment illustrated a base 9 is employed that is in the form of a boxing and contains a sliding drawer 10. Mounted on this base is a frame 11, preferably in the form of a casting and having a card-receiving recess 12. The lower portion of this frame constituting the bottom of the recess 12 is provided with a bed 13, having an opening 14 extending directly through the top of the boxing 9, as illustrated in Fig. 3. The upper portion of the opening contains a screw-threaded female die 15, receiving the lower reduced end 16 of a vertically-sliding punch-plunger 17, mounted in the frame above the recess and having a transversely-disposed head 18 at its upper end. A coiled spring 19, seated in a recess 20, formed in the upper portion of the frame, bears against the under side of the head 18, and thus yieldingly supports the plunger. A suitable guide-clip 21 is located in the card-receiving recess and embraces the lower end of the plunger, being located above the bed 13.

The upper end of the frame 11 terminates in spaced upstanding ears 22, and pivoted to and between the same is a swinging support in the form of a boxing 23, said boxing being pivoted between its ends and having a cam enlargement 24, that bears upon the head 18 of the plunger. A shaft 25, journaled in and extending longitudinally through the boxing 23, has at one end a handle-grip 26, while its other end carries a cam member, (designated generally by the reference-numeral 27.)

Secured to one side of the frame is the registering mechanism, consisting of a face-plate 28, having a number of sight-openings 29 therethrough and being furthermore provided with a series of number-wheels 30, journaled on the plate behind the sight-openings and having numbers that are arranged to successively aline with said openings when the wheels are turned. The units-wheel (designated 30^a) is provided with a shaft 31, the rear end of which is journaled in the frame and carries a ratchet-wheel 32. Actuating means for this registering mechanism comprises a yoke 33, having its terminal portions 34 inset and slidably mounted in the frame. A rack-bar 35 is pivoted upon the yoke and coacts with the ratchet-wheel 32, said bar being yieldingly maintained in engagement with the wheel by means of a spring 36. Retrograde movement on the part of the ratchet-wheel 32 is prevented by means of a dog 37, pivoted in the frame and having one terminal bearing against said wheel, said dog having its other terminal projecting beyond the opposite side of the frame and attached to a spring 38. (Shown in Figs. 4 and 9.) A spring 39, connected to the yoke and frame, serves to hold the yoke in its lowermost position.

The cam member 27, to which reference

has already been made, consists of a head 40 and triangular plates 41 and 42, the edges of the latter forming separate sets of angularly-disposed shoulders 43 and 44. The head 40 is located within the yoke, and the upper cross-bar of said yoke is disposed in the path of movement of said head when the swinging support and shaft is swung. This head in the present instance has three faces 45, 46, and 47, located at different distances from its axis of rotation and arranged to be successively brought into coöperative relation with the cross-bar of the yoke when the shaft and cam member are rotated. The cam member is normally held in these various positions by means of a pivoted dog 48, bearing against the angularly-disposed shoulders 44 and yieldingly maintained against the same by a spring 49. It will be observed that there are as many of the shoulders 44 as there are portions of the cam member arranged to engage the yoke. The shoulders 43 of the other triangular plate constitute part of the locking means for positively preventing the rotation of the cam member when the same is swung to move the yoke, said shoulders 43 coacting with an arch-piece 50, having a shoulder 51 at one side, with which the shoulders 43 coact when the cam member is swung, the flat coacting shoulders thereby preventing the turning of said cam member and the shaft. Another of the shoulders 44 is adapted to strike against an abutment-shoulder 52, formed upon the arch, and constituting a stop to limit the swinging movement of the cam member and handle. The different positions of the cam member are shown upon the handle by means of an indicator-scale 53, that coacts with a pointer 54, located upon the swinging supporting-boxing 23.

The entire mechanism above the card-receiving recess 12 and in rear of the pivot of the supporting member 23 is inclosed by a hood or casing 55, having openings 56 in one side that aline with the openings of the face-plate of the registering mechanism, so that the figures will be displayed therethrough.

In order to prevent overthrow on the part of the actuating mechanism and numbering-wheels, a stop for the handle may be employed, said stop comprising a screw-shank 57, threaded into the outstanding arm 58 of a bracket 59, that is secured to the frame 11 directly beneath the handle. The shank 57 is locked by a nut 60 and has a head 61 located beneath and in the path of movement of the handle. Thus the downward movement of the handle is limited by the stop-head, and by adjusting said head an accurate movement of the registering mechanism may be secured and the necessary wear of the parts compensated for.

The check-cards employed are ordinarily marked for various amounts; but those which are used in connection with the present machine have designated values of five, ten, and twenty-five cents. In case a card is to be punched to the value of five cents the handle is turned until the designation "5" on the scale 53 is opposite the arrow 54. This will bring the portion 45 of the cam-head which is closest to the axis of rotation of said head into coacting relation with the cross-bar of the yoke. Therefore when the card is placed beneath the plunger and the handle pressed downwardly the yoke will be moved a comparatively slight distance in an upward direction. This will impart a similar movement to the rack-bar, and consequently the ratchet-wheel will be turned, rotating the first number-wheel to display the numeral "5." In case a ten-cent value is to be punched from the card the handle is turned until the numeral "10" on the scale 53 is opposite the arrow, whereupon the intermediate portion 46 of the cam will be brought into coacting relation with the yoke, and upon the swinging of the handle said yoke will be moved double the distance, with a corresponding increase of movement on the part of the numbering-wheel. Upon bringing the numeral "25" on the scale into coacting relation with the arrow the portion of the cam farthest from its axis of rotation will engage the yoke when the card is punched, and the necessary movement of the numbering-wheels will thereby be obtained. In all these changes it is to be observed that the handle has the same path of movement with relation to the remainder of the structure, so that the leverage thereof remains constant. The changes to the different values may thus be readily effected, said different values being plainly indicated upon the mechanism, and when the punching operation is taking place the mechanism is held against change. Further than this, said mechanism is comparatively simple, and the parts are so arranged that in case of wear or injury the structure can be dismembered for the purpose of repair or renewal.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. In mechanism of the class described, the combination with registering mechanism, of actuating means therefor, a swinging support, a handle revolubly mounted on the swinging support and swinging therewith, and a cam revoluble with the handle and having different

portions arranged to engage the actuating means for moving the registering mechanism to different positions upon the swinging movement of the handle.

2. In mechanism of the class described, the combination with registering mechanism, of actuating means therefor, and a swinging handle completely revoluble on an axis and having a cam engagement with the actuating means for moving the same different distances, said handle having an exposed hand-grip for operating the same.

3. In mechanism of the class described, the combination with registering mechanism, of actuating means therefor, and a swinging pivotally-supported handle revoluble on its longitudinal axis and having a cam that engages the actuating means for moving the same different distances.

4. In mechanism of the class described, the combination with registering mechanism, of actuating means therefor, and a revoluble cam having portions located at different distances from its axis of revolution, said portions being arranged to engage the actuating means for moving the same different distances.

5. In mechanism of the class described, the combination with registering mechanism, of actuating means therefor, and a swinging revoluble cam having portions located at different distances from its axis of revolution, said portions being brought into coacting relation with the actuating means upon the revolution of the cam and being arranged to move said actuating means different distances upon the swinging movement of the cam.

6. In mechanism of the class described, the combination with registering mechanism, of reciprocatory actuating means therefor, and a revoluble cam having portions located at different distances from its axis of revolution, said portions being arranged to engage the actuating means for moving the same different distances.

7. In mechanism of the class described, the combination with registering mechanism, of reciprocatory actuating means having a ratchet engagement with the registering mechanism, and a revoluble cam having portions located at different distances from its axis of revolution, said portions being arranged to engage the actuating means for moving the same different distances.

8. In mechanism of the class described, the combination with registering mechanism comprising a series of number-wheels, of a ratchet-wheel coacting therewith, a reciprocatory ratchet engaging the wheel, a revoluble and swinging cam having portions located at different distances from its axis of revolution, and a device connected to the ratchet and operated by the cam, the different portions of said cam being moved into coacting relation with the device upon the revolution of the cam.

9. In mechanism of the class described, the combination with a frame, of a yoke slidably mounted thereon, number-wheels, a ratchet-wheel secured to one of the number-wheels, a ratchet coacting with the wheel and carried by the yoke, and a swinging and revoluble cam having portions located at different distances from its axis of rotation and adapted to engage the yoke.

10. In mechanism of the class described, the combination with a frame, of number-wheels mounted thereon, a ratchet-wheel attached to one of the number-wheels, a yoke having its terminal slidably mounted in the frame, a ratchet-bar pivotally supported on the yoke and engaging the ratchet-wheel, and a swinging cam located within the yoke and arranged to engage the same.

11. In mechanism of the class described, the combination with registering mechanism, of actuating means therefor, a revoluble cam having portions located at different distances from its axis of rotation and arranged to engage the actuating means for locking the cam in its different positions.

12. In mechanism of the class described, the combination with registering mechanism, of actuating means therefor, a swinging and revoluble cam member having portions located at different distances from its axis of rotation and arranged to engage the actuating means, and means for locking the cam against rotation in its different positions.

13. In mechanism of the class described, the combination with registering mechanism, of actuating means therefor, a revoluble cam member having portions located at different distances from its axis of rotation and arranged to engage the actuating means, and means for locking the cam member in its different positions, said cam member being moved into engagement with the lock upon its swinging movement.

14. In mechanism of the class described, the combination with registering mechanism, of actuating means therefor, a rotatable cam member having shoulders, said cam member being also provided with portions located at different distances from its axis of rotation and arranged to engage the actuating means, and a holding-dog yieldingly engaging the shoulders.

15. In mechanism of the class described, the combination with registering mechanism, of actuating means therefor, a swinging and revoluble cam member having portions located at different distances from its axis of rotation and arranged to engage the actuating means, said member being also provided with angularly-disposed shoulders, and a spring-pressed holding-dog arranged to yieldingly bear against the different shoulders upon the rotation of the cam member.

16. In mechanism of the class described, the

combination with registering mechanism, of actuating means therefor, a swinging and revoluble cam member having portions located at different distances from its axis of revolution and arranged to engage the actuating means upon the swinging movement of the cam member, said cam member being also provided with angularly-disposed shoulders equal in number to the portions of the cam that engage the actuating mechanism, and means engaging the shoulders for holding the cam member against rotation.

17. In mechanism of the class described, the combination with registering mechanism, of actuating means therefor, a swinging rotatable cam member having portions located at different distances from its axis of rotation and arranged to engage the actuating means upon the swinging movement of said cam member, angularly-disposed shoulders constituting a part of the cam member, and a stationary shoulder located alongside the path of movement of the cam member and engaged by the shoulders of said member on the swinging movement thereof, said stationary shoulder constituting a lock for holding the cam member against rotation.

18. In mechanism of the class described, the combination with registering mechanism, of actuating means therefor, a swinging rotatable cam member having portions located at different distances from its axis of rotation and arranged to engage the actuating means upon the swinging movement of the member, separate sets of angularly-disposed shoulders constituting parts of the cam member, a spring-pressed dog coacting with the shoulders of one set, and a locking device coacting with the shoulders of the other set for holding the cam member against revolution during a portion of its swinging movement.

19. In mechanism of the class described, the combination with registering mechanism, of actuating means therefor, a swinging support, and a cam revoluble upon the support and having portions located at different distances from its axis of rotation, said portions engaging and moving the actuating means upon the swinging of the support.

20. In mechanism of the class described, the combination with registering mechanism, of actuating means therefor, a swinging support, a shaft journaled in the support, and a cam fixed to the shaft and having portions located at different distances from its axis of rotation, said portions engaging and moving the actuating means upon the swinging of the support.

21. In mechanism of the class described, the combination with registering mechanism, of actuating means therefor, a swinging support, a shaft journaled in the support and swinging therewith, a handle-grip carried by one end of the shaft, and a cam carried by the other end and having portions located at different distances from its axis of rotation, said portions engaging and moving the actuating means different distances upon the swinging of the support.

22. In mechanism of the class described, the combination with a frame, of registering mechanism, a ratchet-wheel connected thereto, a reciprocatory yoke slidably mounted on the frame, a ratchet-bar carried by the yoke and engaging the wheel, a pivoted support, a shaft journaled longitudinally in the support and projecting beyond opposite ends thereof, a cam carried by one end of the support and having portions located at different distances from its axis of rotation, said portions being successively brought into coaction with the yoke upon the rotation of the shaft, and a handle carried by the other end of the shaft.

23. In mechanism of the class described, the combination with registering mechanism, of actuating means therefor, a swinging support, a punch operated by the swinging support, and a cam revoluble upon the support and having portions located at different distances from its axis of rotation, said portions engaging and moving the actuating means upon the swinging of the support.

24. In mechanism of the class described, the combination with registering mechanism, of actuating means therefor, a swinging support having a cam portion, a spring-supported punch located beneath and operated by the cam portion of the support, a cam revolubly mounted upon the support and having portions located at different distances from its axis of rotation, said portions engaging and moving the actuating means upon the swinging of the support, and a handle for swinging the support and rotating the cam.

25. In mechanism of the class described, the combination with a frame, of numbering-wheels mounted thereon, a ratchet-wheel connected to the numbering-wheels, a yoke slidably mounted on the frame, a ratchet-bar pivoted to the yoke and engaging the ratchet-wheel, a vertically-movable spring-supported punch-plunger mounted on the frame, a supporting-boxing pivoted between its ends upon the frame and having a cam portion coacting with the plunger portion, a shaft journaled longitudinally in the boxing, a handle carried by one end of the shaft, a cam member carried by the other end of the shaft and having portions located at different distances from its axis of rotation and arranged to engage the yoke for moving the same, separate sets of shoulders constituting part of the cam member, a spring-pressed dog coacting with one set of shoulders, and stationary locking-shoulders carried by the frame and arranged to be engaged by the other set of shoulders when the support is swung.

26. In mechanism of the class described, the combination with registering mechanism, of an actuating device therefor, relatively mov-

able coacting punch elements, one of which is operated by the actuating device, and a variable stop for limiting the movement of the actuating device and at all times permitting the coaction of the punch elements.

27. In mechanism of the class described, the combination with registering mechanism, of actuating means therefor including a swinging handle, a die, a punch operated by the handle and movable into and out of coacting relation with said die, and a variable stop located in the path of movement of the handle and permitting the movement of the punch into coaction with the die upon the swinging of the handle.

28. In mechanism of the class described, the combination with a punch, of a support for the punch, registering mechanism, means for actuating the punch and registering mechanism, and a screw adjustably mounted on the support and having a stop-head located in the path of movement of the handle.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

GEO. M. BRADT.

Witnesses:
M. K. RICE,
F. SPIELBERGER.