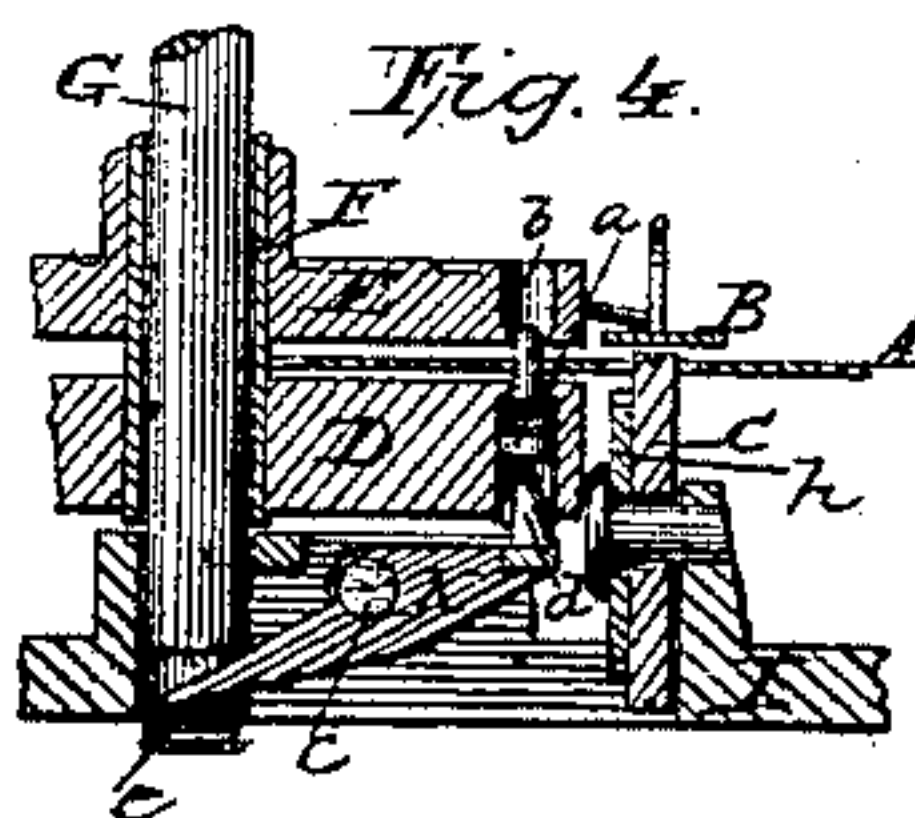
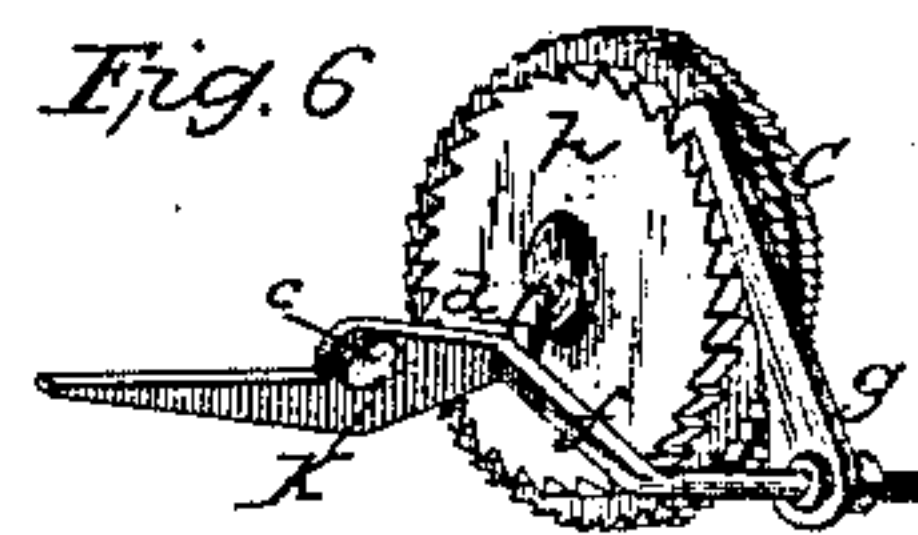
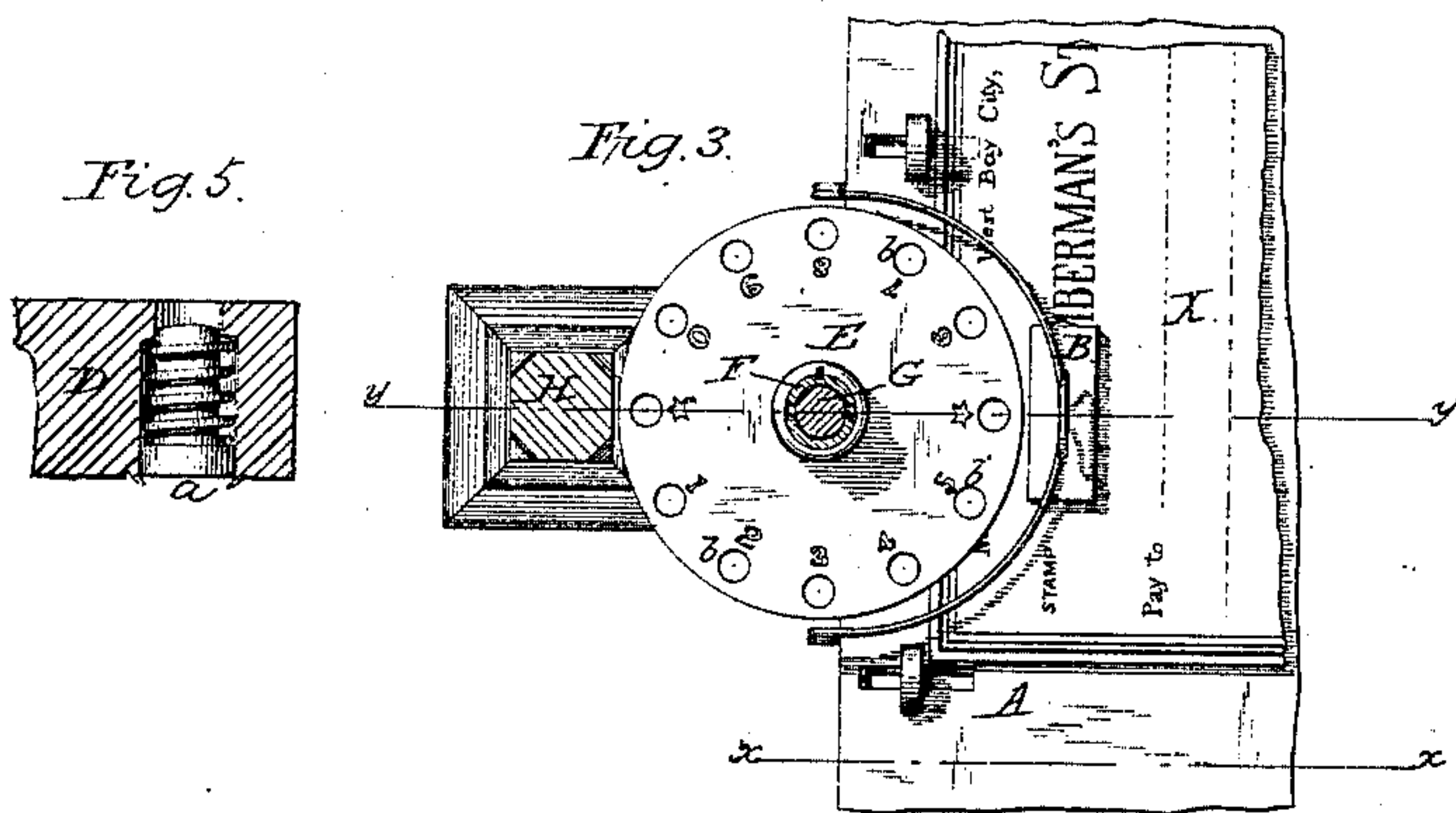
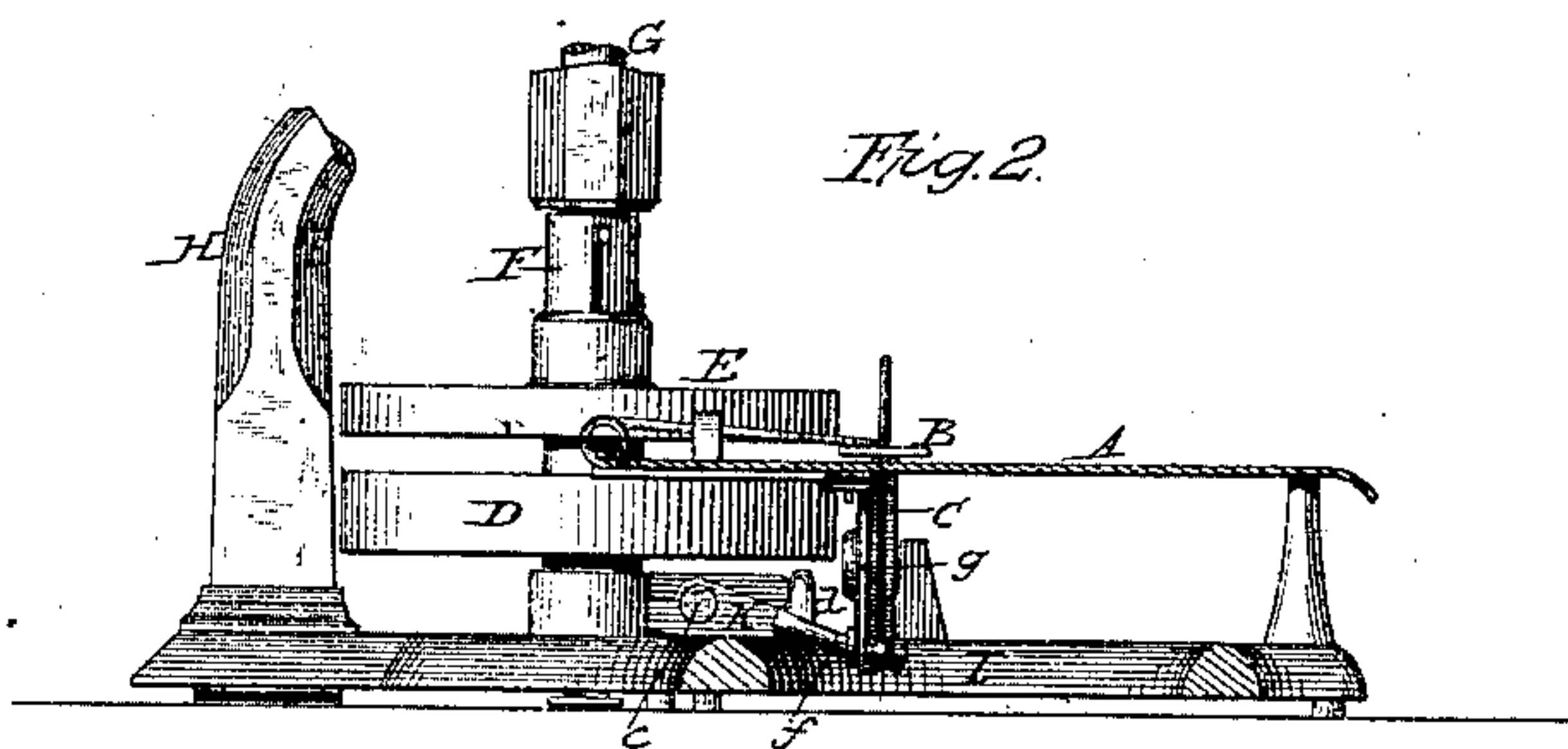
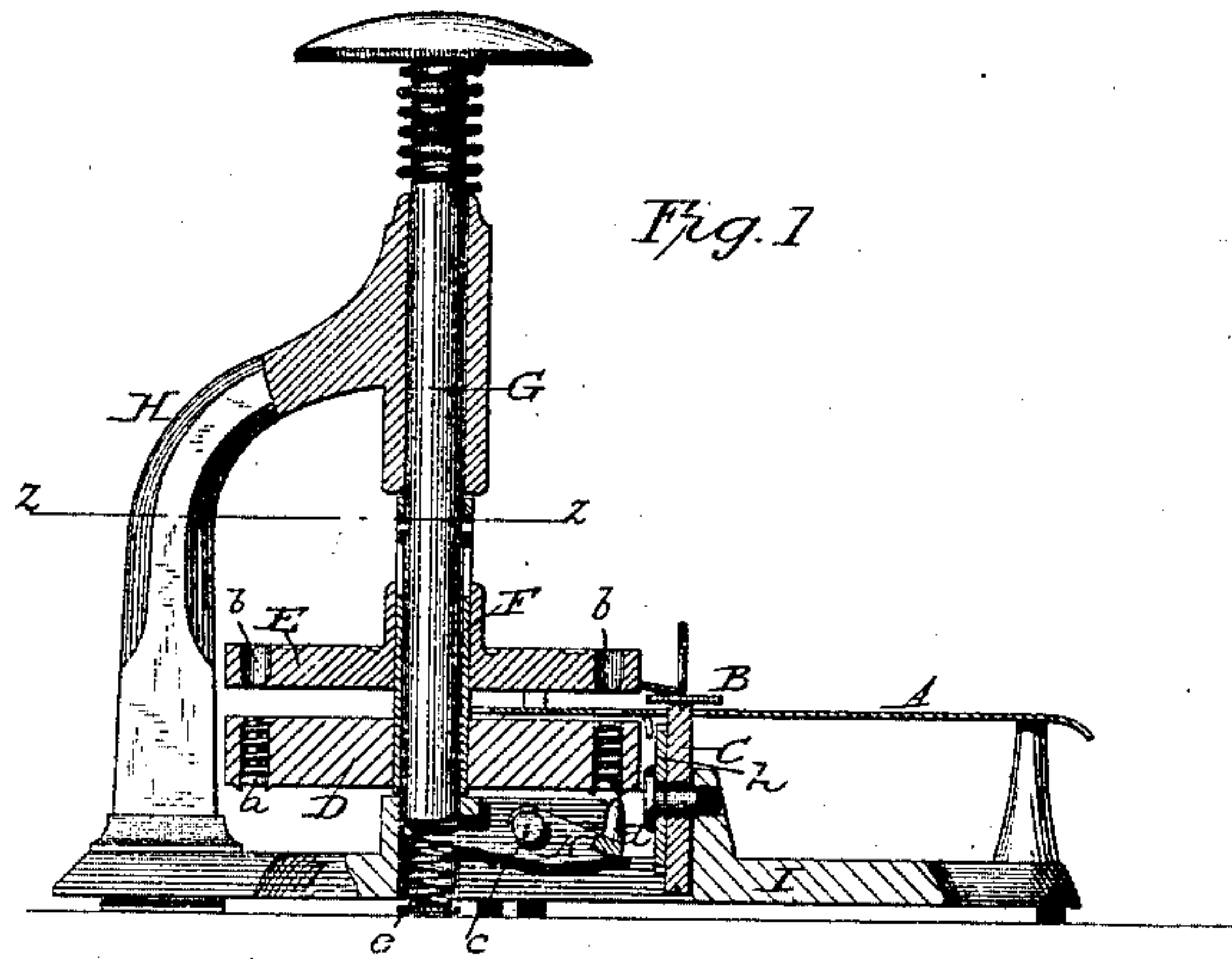


H. H. NORRINGTON. Perforating-Stamp.

No. 223,161.

Patented Dec. 30, 1879.



WITNESSES:

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UNITED STATES PATENT OFFICE

HENRY H. NORRINGTON, OF WEST BAY CITY, MICHIGAN.

IMPROVEMENT IN PERFORATING-STAMPS.

Specification forming part of Letters Patent No. 223,161, dated December 30, 1879; application filed October 27, 1879.

To all whom it may concern:

Be it known that I, HENRY H. NORRINGTON, of West Bay City, in the county of Bay and State of Michigan, have invented a new and useful Improvement in Perforating-Stamps; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention is an improvement in the class of check-punches or perforating-stamps in which a horizontal die wheel or wheels rotating on a vertical axis, and carrying a series of punches, and also a sliding plunger and lever-pawl, are arranged to coact in such manner that the die-wheels are rotated by and with the plunger, and the descent of the latter operates the punches and also the feed mechanism.

My invention is more particularly an improvement upon a stamp for perforating checks, drafts, &c., for which I have received United States Letters Patent No. 220,412. In said former invention two rotatable dies or die-wheels are employed, one a die provided with punches, and the other a die provided with holes for receiving the punches. These die-wheels are arranged horizontally on different shafts and in different planes, and connected by gears in such manner that both rotate simultaneously in opposite directions.

The punching-die is attached to a sliding sleeve or plunger, and when forced down it operates a pawl and ratchet feed-wheel that moves the check, and one of the punches fixed in the under surface of such die punctures the check or other paper placed between the two dies.

In the present invention both die-wheels are placed on the same sleeve, which is adapted to rotate, but has no sliding movement. The lower wheel is provided with movable spring-punches, which are forced up through the check or other paper by the action of a lever that also effects the rotation of the feed-wheel. I thus economize space, simplify the construction, lessen the number of parts, and secure a more direct and positive action.

In the accompanying drawings, forming part of this specification, Figure 1 is a vertical central section on line *y y* of Fig. 3. Fig. 2 is a vertical section on line *x x* of Fig. 3. Fig. 3 is a horizontal section on line *z z*, Fig. 1. Fig.

4 is a detail section, showing the operation of certain parts. Figs. 5 and 6 are detail views.

A indicates the table, and B the spring-plate for pressing the check or other paper upon the feed-wheel C. A portion of the inner edge of said table A lies between the two dies D E, which are fixed horizontally on the sleeve or hollow shaft F. The latter rotates or is rotatable on a plunger, G, arranged to slide vertically in the guide of the goose-neck or curved arm H of the base I, upon which the table A is supported.

In my former invention, above referred to, the sleeve carrying the punching-wheel slides vertically, whereas in this machine the same has no vertical movement; but the plunger G is made to slide instead. The plunger G is connected with the hollow shaft F of the die-wheels D E by means of a slot and feather, so that while the plunger is free to slide vertically, it carries the die-wheels D E with it in any rotary movement.

The die D has a series of vertical-sliding punches, *a*, which are held in sockets arranged concentrically near its periphery, and provided with spiral springs for retracting them, as hereinafter described.

The upper wheel, E, has a series of vertical holes, *b*, corresponding both in number and shape and position with the punches *a* of the lower wheel. These holes *b* are designated in regular order or succession by the following characters, to wit: A star, the numbers 1 to 9, inclusive, and the cipher, (0.) The punches *a*, which register with these holes *b*, have like characters (star and numerals) cut in their upper ends, so that when a particular punch or die, *a*, is forced up, it will make a puncture in the check or draft, Fig. 3, which will correspond to the character by which the hole above it (the punch) is designated.

The device for forcing up the punches *a* in any desired order or succession is an angular lever, K, which is pivoted at *c* to a projection or rib of the base I. The outer end of this lever is provided with a vertical stud or finger, *d*, and the inner end projects beneath the hollow shaft F and rests on a spring, *e*, so that when the plunger G descends it will tilt the lever K and cause its finger *d* to strike on any stud *a* that is brought into coincident position

with it, and thus force the same upward through the check or other paper laid on the table A between the dies D E, as shown in Fig. 4.

Whenever the die D is so adjusted that one of its punches *a* is not directly over the finger *d* of lever K, it is obvious the lever cannot be tilted, and the plunger G cannot be forced down, since the said finger will then come in contact with the imperforate portion of the wheel D; but the characters on the upper wheel, E, being under the eyes of the operator, it is easy for him to perceive when the proper registration exists, and hence no difficulty is experienced in practical operation.

The lever K has an arm, *f*, to which a hook-pawl, *g*, is hinged. A ratchet-wheel, *h*, is affixed to the inner side of the feed-wheel C, and the pawl *g* engages the same. The lever K has thus a double function—to wit, it operates the punches and the feed-wheel.

In my former invention the downward movement of the plunger causes the feed-wheel to rotate; but in this case the feed-wheel is rotated as the plunger moves upward, since the spring at that time tilts the lever back to its original or normal position, and thus draws the hook-pawl *g* downward.

In my former invention the punches tend to raise or draw the paper upward when the plunger recedes, and thus disturb the position or adjustment of the check or other paper being punched. In this machine that difficulty is avoided, since the check lies flat on the table A, and cannot be moved while a punch is being retracted. In this machine, therefore, I simplify the construction by lessening the number of parts, economize space, and secure a more direct and positive action.

What I claim is—

1. In a perforating-stamp, the combination, with the table A and horizontal die-wheels, both fixed on a rotatable sleeve, and the lower one having a series of sliding punches, of the plunger sliding in, but rotating with, said sleeve, and a device arranged beneath the die-wheels, and on which the foot of the plunger acts for raising the punches, substantially as shown and described.

2. In a perforating-stamp, the lever pivoted beneath the table and provided with the vertical finger and lateral arm to which the pawl is attached, the ratchet feed-wheel, and the plunger which acts on the spring-supported end of the lever, and the die-wheel carrying movable spring-punches, all combined as shown and described.

3. In a perforating-stamp, the combination of the sliding plunger with the sleeve or hollow shaft carrying the die-wheels, one of which has a concentric series of spring-punches, said plunger extending through the said shaft and forming the support or axis with which it revolves, and a pivoted lever which projects beneath the foot of the plunger, as shown and described, so that the plunger may be depressed, the wheels rotated, and the lever tilted simultaneously, as specified.

The above specification of my invention signed by me this 18th day of October, 1879.

HENRY H. NORRINGTON.

Witnesses:

THOMAS A. E. WEADOCK,
FRANK L. WESTORN.