

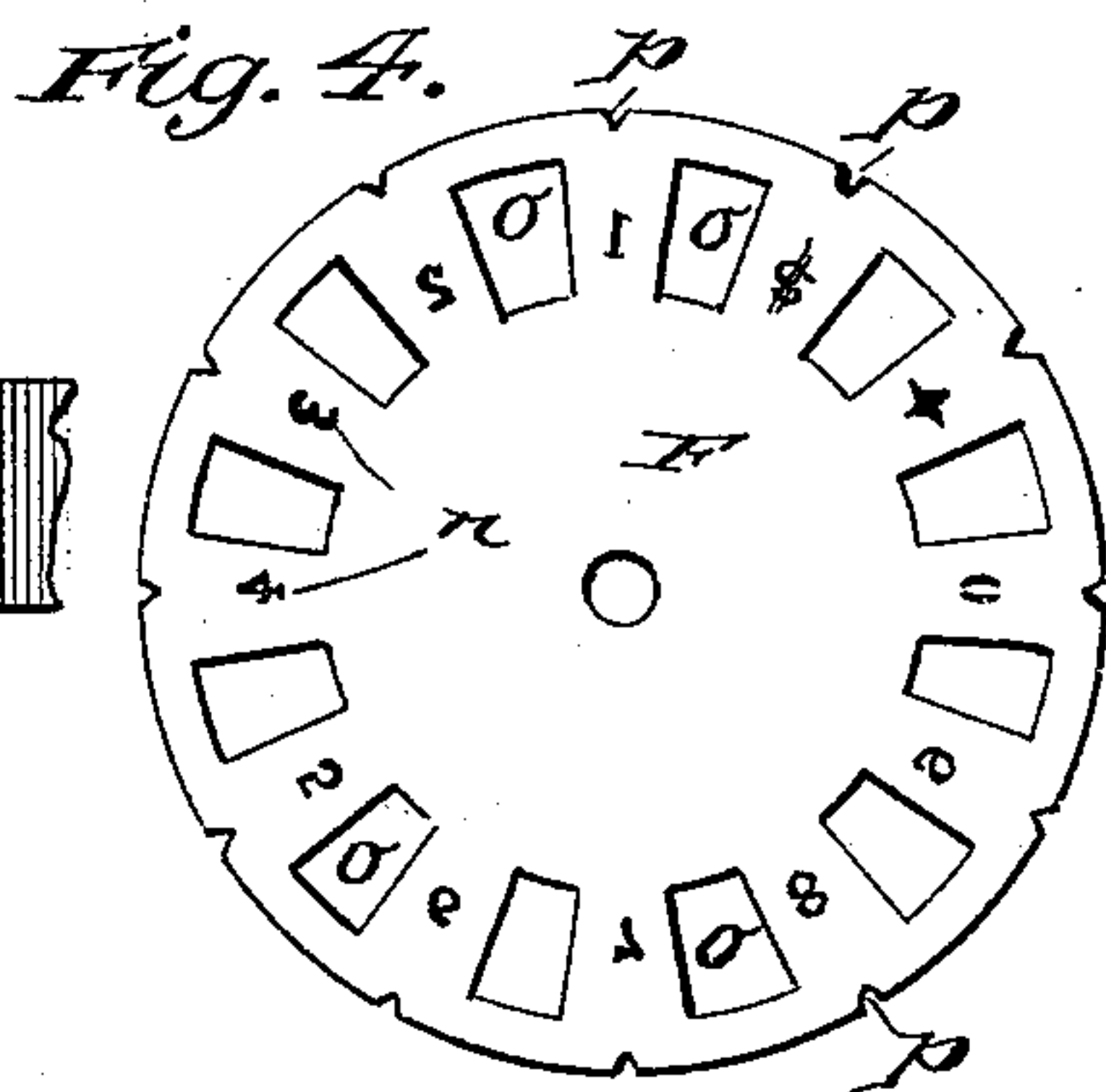
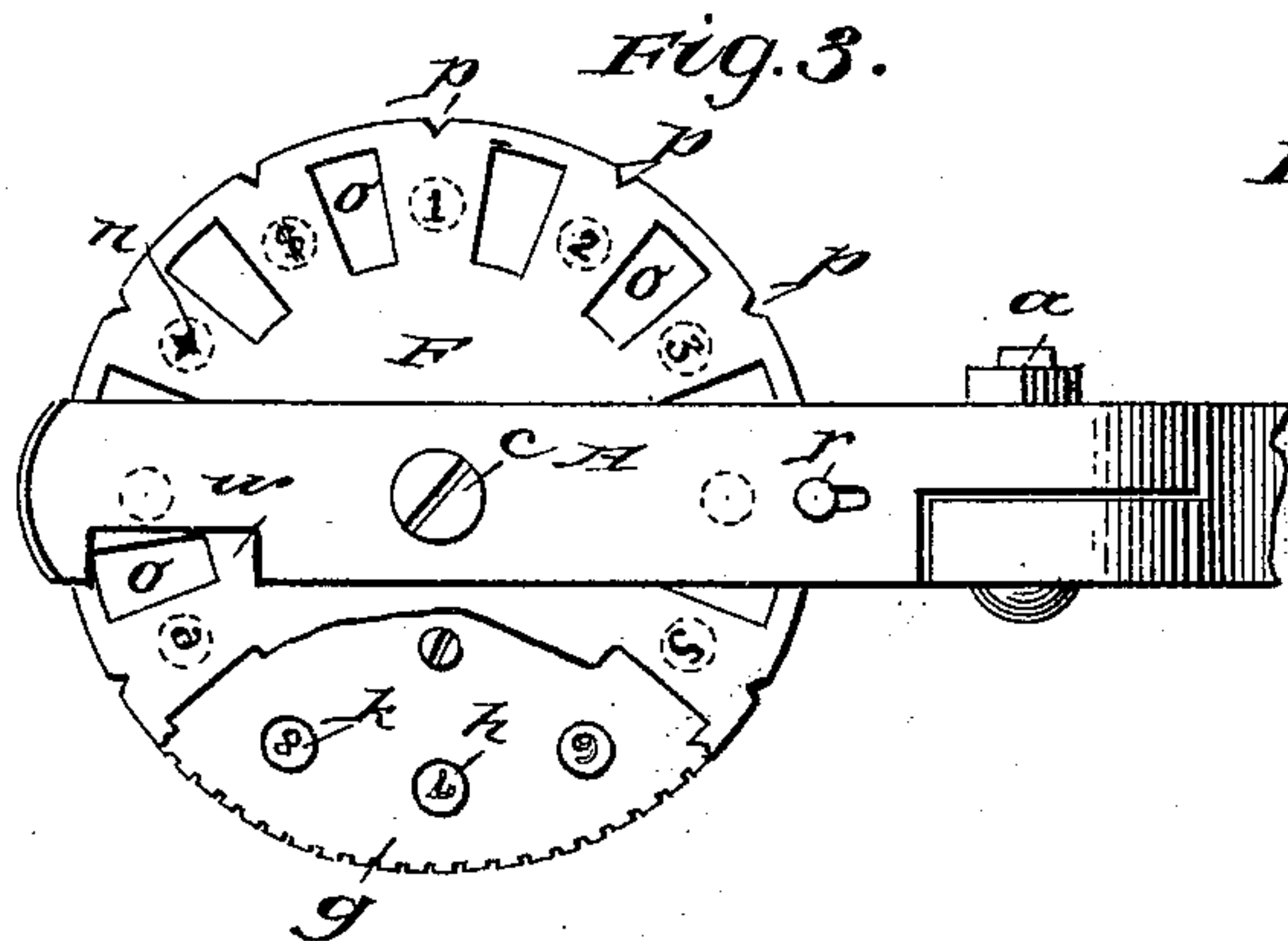
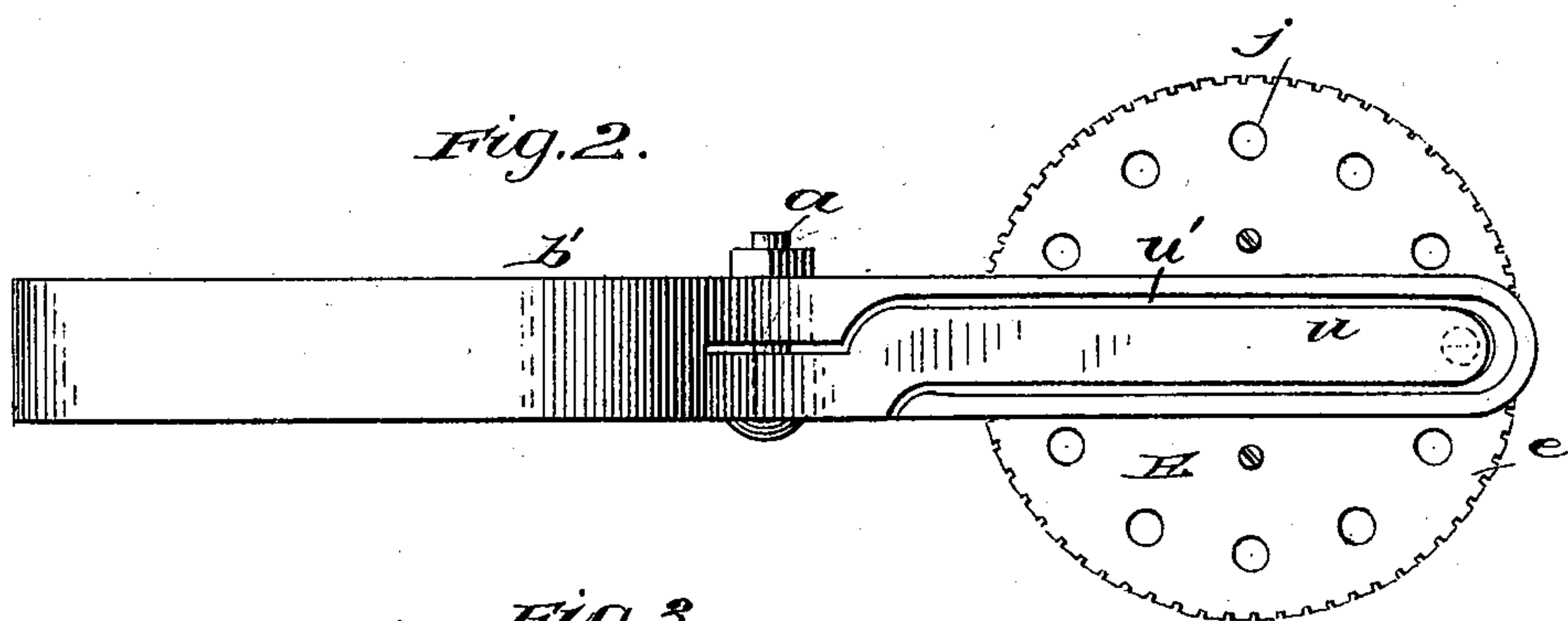
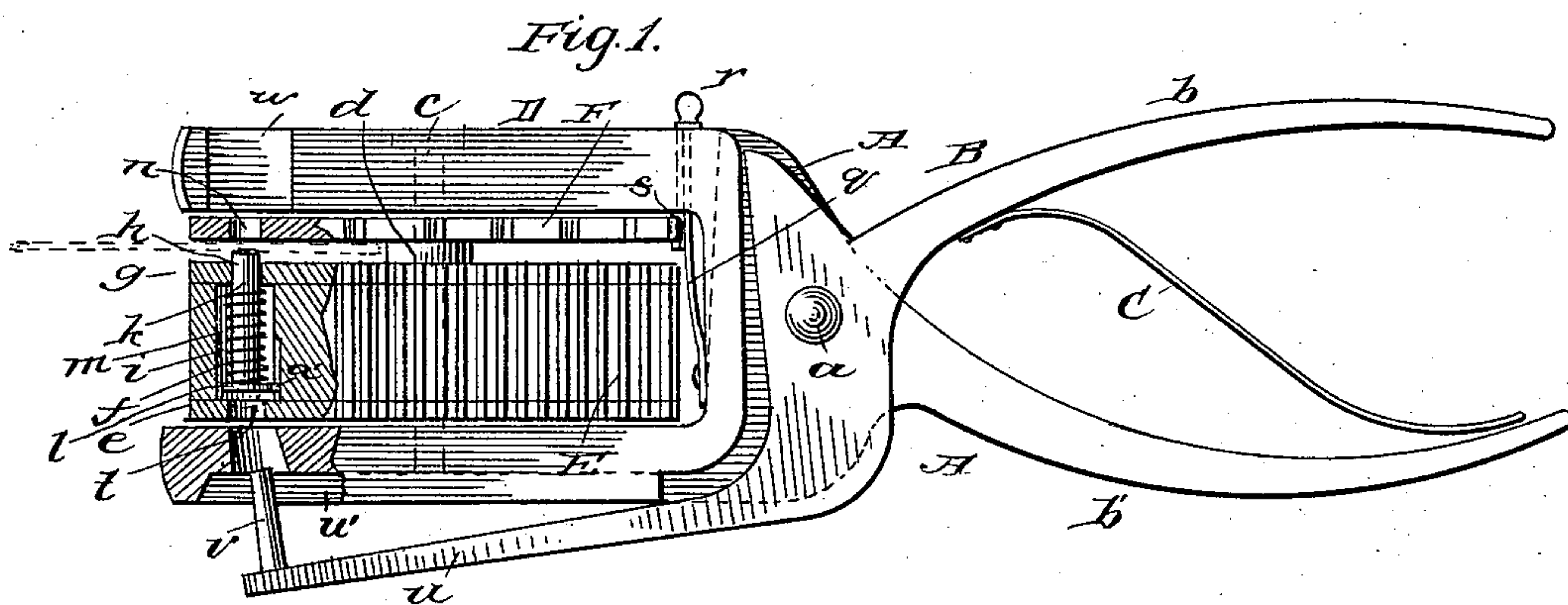
(No Model.)

J. B. BACKUS.

FIGURE PUNCH FOR CHECKS OR OTHER PAPERS.

No. 521,358.

Patented June 12, 1894.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JAMES BAYARD BACKUS, OF NEW YORK, N. Y.

## FIGURE-PUNCH FOR CHECKS OR OTHER PAPERS.

SPECIFICATION forming part of Letters Patent No. 521,358, dated June 12, 1894.

Application filed May 18, 1888. Serial No. 274,268. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES BAYARD BACKUS, of the city, county, and State of New York, have invented a new and Improved Figure-Punch for Checks or other Papers, of which the following is a specification.

Figure 1 is a side elevation, partly in section, of my improved figure punch for checks and other papers. Fig. 2 is a plan view. Fig. 3 is an inverted plan view, with parts broken away to show the internal construction; and Fig. 4 is a detail plan view of the dies as they appear on the side of the disk next to the cylinder.

Similar letters of reference indicate corresponding parts in all the views.

My invention is in the nature of a hand punch for cutting figures in checks and other papers, to prevent them from being raised or otherwise altered.

It relates to that particular form of hand punch in which a revolving cylinder is provided with a circular series of punches and dies that may be successively brought into position between the jaws of said device to bring into operation any one of said punches upon the check or other paper.

The particular object of my invention is to simplify and cheapen the construction of this form of hand punch, and to insure a more exact and certain operation of the devices, and to these ends it consists in the peculiar construction and arrangement of parts, which I will now proceed to more fully describe with reference to the drawings.

The levers A, B, forming the body of the punch, are pivotally connected by a screw *a*, and the handles *b b'* formed on the extremities of the levers are pressed apart by a spring C, secured to the handle *b* and pressing against the inner surface of the handle *b'*. The lever A carries a frame D composed of two parallel rigid jaws between which is pivoted a cylinder E upon the pin *c*, the said pivotal pin *c* being arranged at right angles to the pivotal screw *a*. To the cylinder E is attached a disk F, by the neck *d*, so that the said cylinder E and disk F will be made to turn together upon the pin *c*.

The cylinder E is formed of three parts *e, f, g*. In the part *g* is formed a series of equi-

distant holes *h*, the number of holes corresponding to the number of figures or characters used in the instrument. In the part *f* are formed chambers *i*, which correspond in number and position with the holes *h*, and in the part *e* are formed holes *j* which are axially in line with the holes *h* and the chambers *i*. The chambers *i* are somewhat larger in diameter than the holes *h* and *j* in the parts *e* and *g* for the purpose hereinafter described. In the chambers *i* are placed the punches *k*, the upper ends of which project through the plate *g*, and carry on the face the figure or character to be cut from the paper. The lower end of such punch *k* is provided with a head *l*, between which and the plate *g* is placed a spiral spring *m* which keeps the punches normally in a depressed position within the chambers. It is to accommodate this head *l* and spring *m* that the chamber *i* is made larger than the surface openings in the cylinder as above described. This constitutes an important feature of my invention in simplifying and improving this class of punches, for such sectional construction of the cylinder enables me to quickly bore the cylinder in a practical and easy way, to surely guide the punches, to safely retain them in the cylinder against coming out, and to conveniently open the cylinder to inspect or remove the punches when necessary.

In the disk F are cut dies *n* corresponding to the punches carried by the cylinder E, and between the dies *n* are formed openings *o* through which the checks may be viewed. In the periphery of the disk F, opposite the centers of the dies *n* are formed V-shaped notches *p*.

Between the two jaws of the frame D adjacent to pivot *a* and substantially parallel with the axis of the cylinder there is secured a spring *q* which projects through the frame and is provided with a knob *r*, for convenience in handling, and upon the said spring, within the frame D and opposite the edge of the disk F, is formed a V-shaped projection *s* which is adapted to engage the notches *p* in the periphery of the disk F.

In the lower part of the frame D is formed an opening *t*, and an arm *u* of the lever B which projects over the frame D is provided



with the stud *v*, which is capable of passing through the hole *t* in the frame, and the opening *j* in the part *e* of the cylinder E, and of pressing directly upon the head *l* of the punch *k*. The engagement of the V-shaped projection *s* of the spring *q* with the notches *p* in the periphery of the disk F, causes the holes *j* to register with the stud *v* and hole *t*.

To lighten the construction of frame D and to give a sufficient range of movement to the arm *u*, the lower jaw of frame D is recessed at *u'* on its under side to allow the arm *u* to enter and lie flush within the same when the handles of the punches are brought together. This external recessing of the lower jaw of frame D is extended upwardly to the other jaw so as to receive the broad middle part of the handle arm, which is thus fulcrumed to the other handle arm externally to the frame, which permits of the easy assembling or disconnection of the parts, and ready inspection or adjustment, and at the same time preserves a compact and light construction.

The paper to be punched is introduced between the cylinder E and the disk F, as indicated in dotted lines in Fig. 1. Then the handles *b b'* are forced together, and the stud *v* is brought into engagement with the punch *k*, forcing it through the paper and into a die carried by the disk F. For convenience in viewing the check, the extremity of the upper arm of the frame D is provided with a notch *w* which permits of looking through the openings *o*.

It will be observed that as the cylinder E and disk F are rigidly connected together, all the punches and their corresponding dies must register. The holes in the dies are cut through the disk F, so that the cuttings from the paper can readily drop out as the disk is revolved. To prevent the punches *k* from turning about their own axis they are each provided with a feather *a'* which works in a slot in the part *f*. The periphery of the cylinder E is fluted to permit of readily turning the cylinder by the thumb of the hand in which the punch is held. The V-shape of the notches *p* in the periphery of the disk F, and the form of the projection *s* on the spring *q* permit of turning the cylinder E without the necessity of withdrawing the spring *q* by the

thumb or finger each time the cylinder is shifted.

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

1. A punch for checks and other papers, consisting of the combination of two arms pivoted to each other and constituting an operating handle, a cylinder pivoted upon one of the arms and having a series of openings and a series of punches carried in said openings, a disk moving with said cylinder against which said punches may be thrust, said disk and cylinder being separated to receive the paper to be punched, and a single stud carried by the other arm for operating the punches, said stud being rigidly fixed to and under the direct influence and control of the handle arm and acting directly upon the said punches substantially as shown and described.

2. A punch for checks and other papers, consisting of the combination of two handle levers or arms, one having a frame D with parallel jaws, one of which jaws and a portion of the frame being recessed externally, and the other of which handle levers or arms is fulcrumed to the first named lever externally within its recess, and carries at its opposite end a rigid inwardly projecting stud, and a rotary cylinder or head pivoted between the jaws of the frame and bearing a series of retractile punches adapted to be directly operated upon by the stud, substantially as shown and described.

3. The combination of the pivoted lever arm A having frame D composed of parallel jaws, the revolving punch carrying cylinder pivoted to revolve between the same, and having disk F with notched periphery, and the spring *q* secured between the jaws of the frame in position substantially parallel to the axis of the cylinder, and having a projection adapted to enter the notches of the disk, the said spring being also extended through the frame D and provided with a thumb piece *r* substantially as and for the purpose described.

J. BAYARD BACKUS.

Witnesses:

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