

No. 862,844.

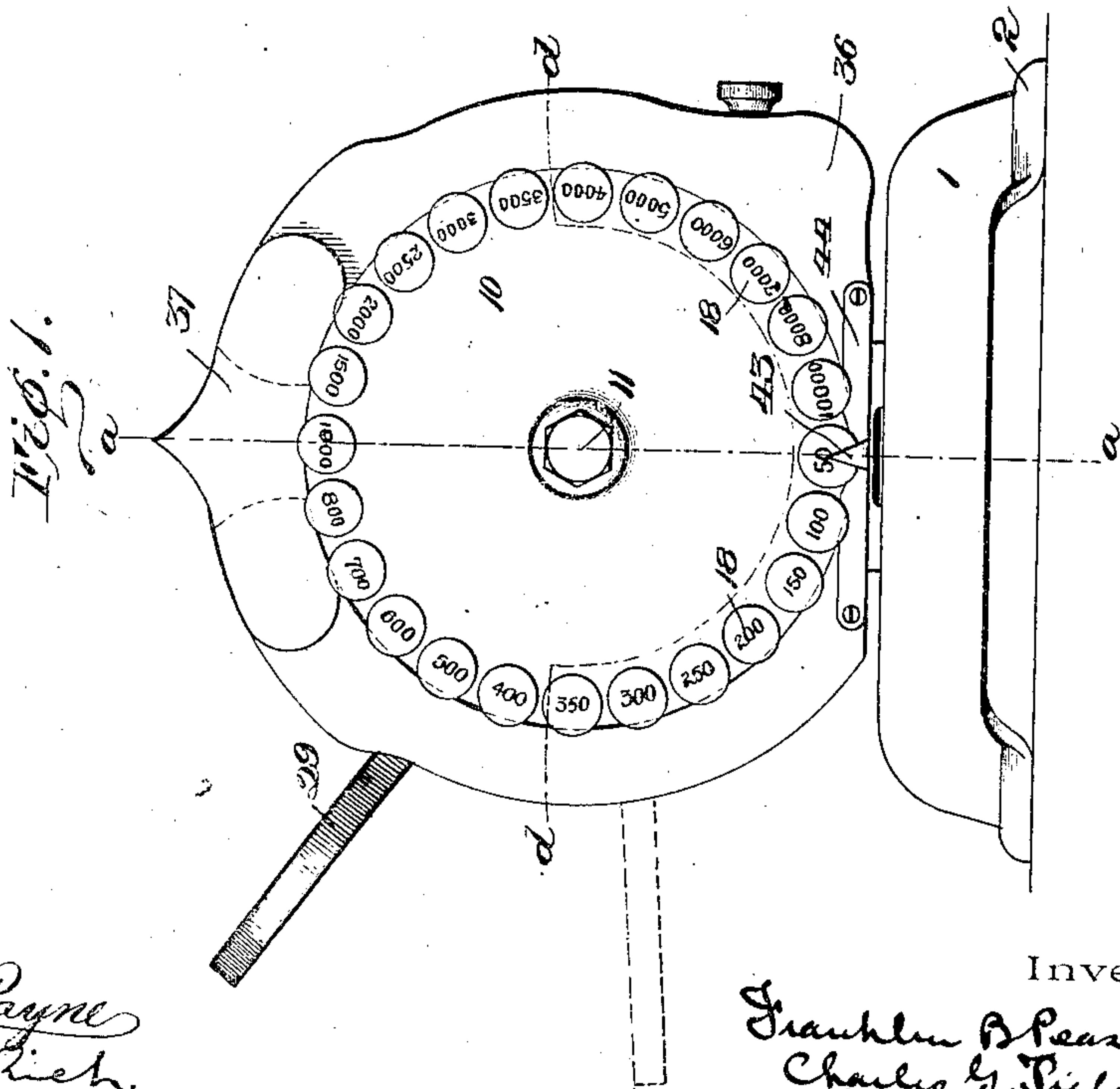
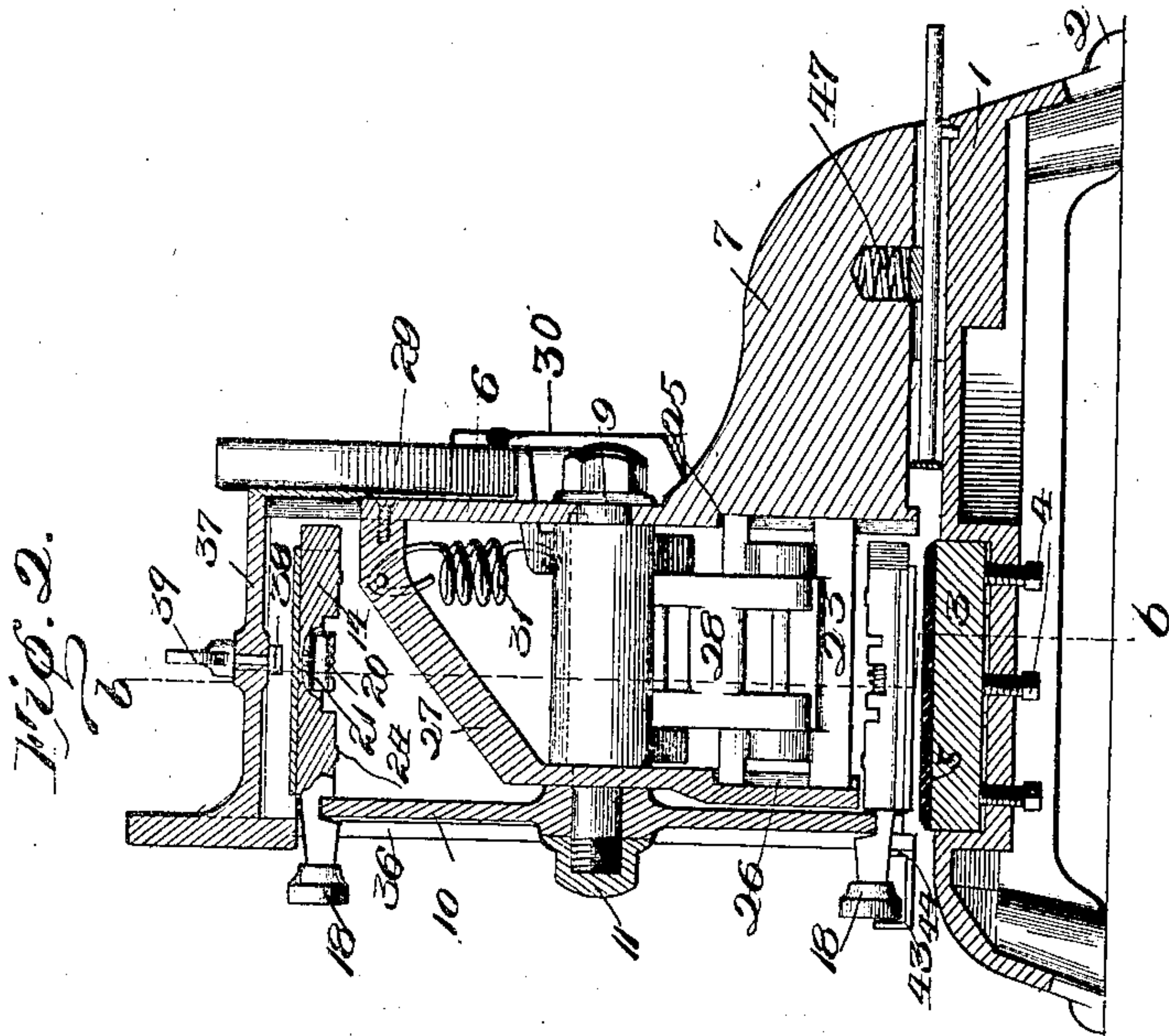
PATENTED AUG. 6, 1907.

F. B. PEASE & C. G. TIEFEL.

CHECK PROTECTOR.

APPLICATION FILED APR. 19, 1899.

3 SHEETS—SHEET 1.



Witnesses.

Walter B. Payne
Willard Rich.

Inventors:

Franklin B. Pease
Charles G. Tiefel
by Church & Church
their Attorneys

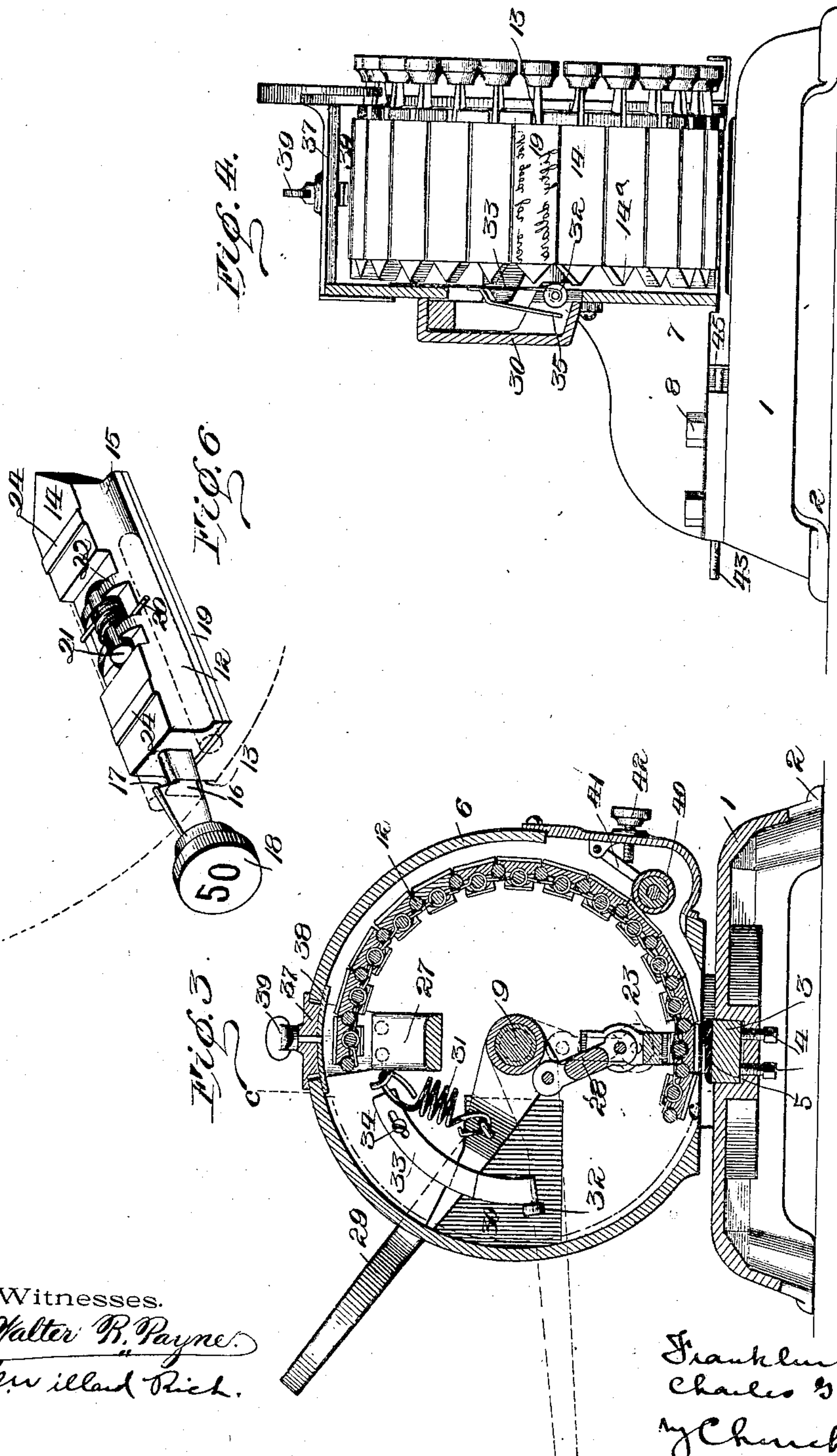
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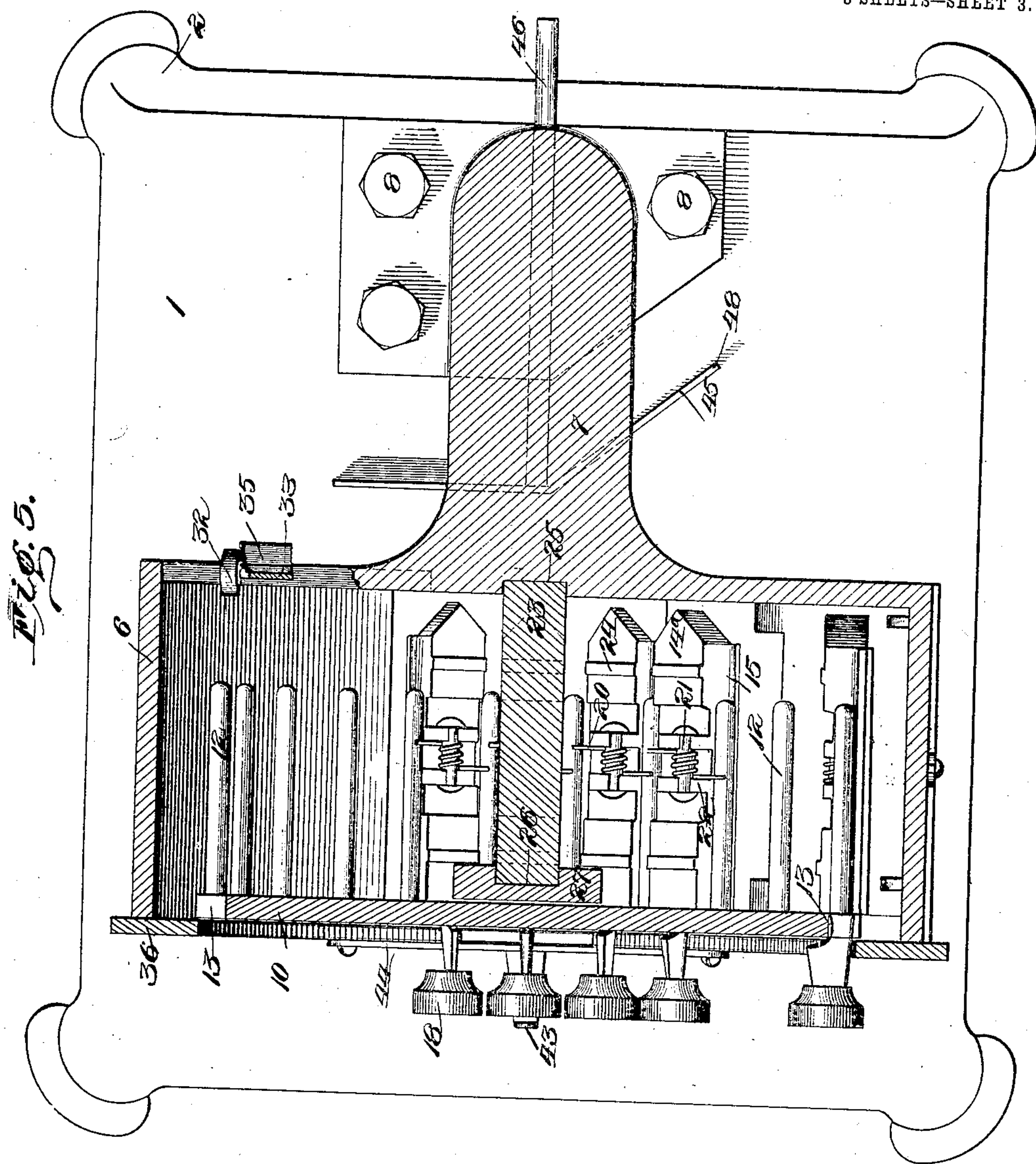
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

FRANKLIN B. PEASE AND CHARLES G. TIEFEL, OF ROCHESTER, NEW YORK, ASSIGNORS TO
G. W. TODD & CO., OF ROCHESTER, NEW YORK, A FIRM.

CHECK-PROTECTOR.

No. 862,844.

Specification of Letters Patent.

Patented Aug. 6, 1907.

Application filed April 19, 1899. Serial No. 713,597.

To all whom it may concern:

Be it known that we, FRANKLIN B. PEASE and CHARLES G. TIEFEL, both of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Check-Protectors; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

Our present invention relates to machines or devices for printing or stamping upon paper, and particularly adapted for stamping or marking upon checks, drafts or other instruments, words or figures indicating the amount for which such instrument is drawn or to which it is limited, and preferably to that class of devices which emboss or otherwise stretch, mutilate or change the fiber of the paper in such manner as to render the check, etc., incapable of alteration without detection, and the invention has for its object to improve the construction and operation of such devices whereby the marking dies or type forms may be brought to operative position and actuated to cooperate with the paper, and whereby also the type forms may be readily removed and inserted for alteration, repairs, or the substitution of others.

To these and other ends, and particularly the simplification and efficiency of the parts, the invention consists in certain improvements hereinafter fully described, the novel features being pointed out in the claims at the end of this specification.

In the drawings: Figure 1 is a front elevation of a device constructed in accordance with our invention. Fig. 2, a sectional view on the line *a-a* of Fig. 1. Fig. 3, a similar view on the line *b-b* of Fig. 2 with some of the interior parts removed to show the construction of parts beyond them. Fig. 4, a sectional view on the line *c-c* of Fig. 3. Fig. 5, a horizontal-sectional view on the line *d-d* of Fig. 1. Fig. 6, a detail view of one of the blocks on which the type forms or dies are secured.

Similar reference numerals in the several figures indicate similar parts.

In the present embodiment of our invention the machine consists of a base-casting 1 having supporting legs 2 and in its upper face a recess in which is located an adjustable platen or block 3 resting upon set screws 4 and carrying on its upper face a pad 5 of rubber, leather, or similar material, extending substantially flush with or slightly above the top face of the base 1. Secured upon the base is a cylindrical casing 6 having an opening in its bottom just over the platen and also having a rearwardly extending arm 7 bolted to the rear of the base 1 by bolts 8, as shown in Fig. 5, so as to

leave a clear space between the lower side of the casing and the top of the base for the insertion of a check or other paper to be operated upon. Arranged centrally of the casing 6 is a bolt or arbor 9 upon the outer end of which is mounted a rotary printing block carrier or support in the form of a disk 10 being confined upon the bolt by a nut 11 or otherwise. The disk 10 is provided with the rearwardly extending arms or projections 12, and also with peripheral notches 13 arranged between said pins, as shown in Figs. 4 and 5, said arms serving as means for supporting the dies or printing blocks, which are preferably yieldingly and removably connected to them. Each of the dies or printing blocks or forms, as shown in Fig. 6, embodies a block or support 14 having lateral flanges or projections 15 at the sides and at one end a projecting shank 16 having a shoulder 17 and adapted to extend through the recesses 13 in the support 10, the outer end of said shank being provided with the disk or knob 18 having marked upon it the figures or letters corresponding to those upon the printing form. The printing form or type may, if desired, be formed directly upon the block 14, but we prefer to employ a separate electrotypes or stereotype plate 19, having the type form thereon, said plate 19 being soldered, or otherwise secured, to said block. The blocks 14 of the printing forms are yieldingly supported on the arms 12 of the disk 10 by means of springs 20 preferably composed of single pieces of spring-wire coiled around a pintle 21 held in lugs 22 on the blocks 14 and having their free ends extending over the arms 12, as shown in Figs. 3 and 6 so that the projecting flanges 15 engage the arms on one side and the springs on the other, thereby permitting the movements of the printing blocks radially of the rotary support or disk 10, when desired.

The rear or inner-faces of the blocks 14 are adapted for cooperating with a vertically-movable plunger 23 arranged within the casing and over the platen 3 in the base, and in order to maintain the parallelism of the face of the form and platen, we provide two bearing ribs 24 on the rear face of the blocks 14, which may be readily ground or planed, thus necessitating very little finishing for each block. The plunger 23 is vertically-movable in guides 25 and 26 formed in the casing and the lower end of an arm 27 respectively, said arm 27 having an aperture through which the arbor or bolt 9 passes and being secured at its upper end to the inner face of the casing 6. The vertical movements of the plunger are caused by a lever sleeved upon the arbor 9 and connected at its shorter end by a link 28 with the plunger, while its longer end 29 is extended cut at the side forming an operating handle. The lever is offset slightly passing through an aperture at the rear of the casing covered by a

cover-plate 30 and it is normally held elevated with the plunger above the rear sides of the printing blocks, by a spring 31.

In order that the printing blocks 14 may be accurately positioned beneath the plunger we provide suitable centering projections on the carrier, preferably by beveling or pointing the rear ends of said blocks, at 14^a, as shown in Figs. 5 and 6, and arrange in the rear of the casing a centering device actuated by the lever 29 and adapted to cooperate with and pass between the beveled ends of two of the blocks each time the lever is depressed to print from the printing block at the lower part of the casing. In the present embodiment, this centering device is located above the base and at the rear side of the casing and consists of a small roller 32 secured on the end of a spring-arm 33 (Figs. 3 and 4) adjustably secured by a screw 34 to the inside of the casing 6, and upon the outer side of the arm 33 is a spring 35 with which the lever directly engages when operated to depress the plunger. By this arrangement in which both the springs 33 and 35 are interposed between the lever and the rotary disk or carrier 10, there is no liability of breaking the parts in case the carrier 10 should stick or be prevented from freely rotating and becoming properly centered when the lever is operated to print.

At the front of the casing is provided a ring cover-plate 36 extending about even with the edge of the disk 10, and in the top of the casing is provided an aperture closed by a cover 37 secured removably in position by a locking plate 38 on the inner end of a rotary pin 39 on said cover. The printing blocks 14 may be applied to or removed from the rotary carrier 10, when desired, through the top aperture in the casing, their application being accomplished by engaging the ends of the springs 20 with the undersides of the pins 12, then drawing the block forward until the shank is dropped into the recess 13 and the shoulder 17 engages the face of the disk, when they will be secured in position, though permitted movement radially of the carrier 10 by the plunger, as described. The printing surfaces of the blocks are arranged close together, forming a practically circular ring of printing forms and printing ink is supplied to these forms during the rotation of the carrier by any suitable devices, as for instance, by an inking roller 40 on the ends of pivoted arms 41 and adapted to be moved against the blocks by an adjusting screw 42, (Fig. 3). At the lower portion of the casing is arranged an index or pointer 43 formed on a plate 44 and adapted to cooperate with the knob 18 of the printing block beneath the plunger when in proper printing position.

45 indicates an adjustable guide plate arranged beneath the casing and attached to a rod 46 operated upon by a friction spring 47, in a recess in the arm 7 one end 43 of said plate being extended at an angle to the other so that the check or draft may be properly positioned to have the imprint extend across or at an angle to the body thereof. The matter on the die or face of the printing blocks 14 may consist simply of numbers ranging from one to ten thousand and with or without the words "Not good for more than — dollars" or any other suitable words or signs could be employed but, of course, in each instance the number or other design-

ating marks upon the printing forms and knobs 18 of the blocks will correspond so that the operator may determine what form he is using. The carrier 10 may be rotated on its pivot by means of the knobs 18, or otherwise, to bring any of the knobs into cooperative relation with the index and then the corresponding block will be beneath the plunger, but even if he should fail to cause the exact coincidence of the index and knob, the centering device operating on the centering projections of the blocks will turn the carrier to proper position.

The operator may cause such a depression of the plunger as will only print lightly upon the surface of the paper if desired, or, and this we prefer, he should give the plunger such a movement as will force the type form down hard enough to cause the paper to be pressed into the soft or yielding covering of the platen and emboss the letters in the paper. This embossing operation stretches or breaks down the fibers of the paper somewhat and allows the ink which is applied to all of the type at each rotation of the carrier to enter the paper and prevents erasure or alteration of the marking.

In the practical operation of the device for marking checks, drafts, etc., the check is placed on the platen beneath the casing and against either of the faces of the stop or guide 45, which has been properly adjusted; then the operator by means of the knobs 18 rotates the carrier until the knob of the proper printing block is in line with the index 43 and then moves down the handle 29, which first causes the centering device to engage the projections on the rear ends of the blocks at the side and holds the carrier stationary and then depresses the plunger and moves the printing block down upon the check with more or less force and prints or embosses it. When the handle is released the spring returns it and the printing block is also returned by its spring and the carrier may be rotated to bring another block into position.

It will be noted that all the parts of the machine are simple and may be easily constructed and put together, the wheel 10 and the arms 12 thereon being readily secured upon the end of the bolt or arbor 9. The printing blocks it will be noted are duplicates and interchangeable, only differing in the type forms on their outer faces and can be readily attached to and removed from the carrier through the upper opening in the casing, so that blocks containing any desired type forms may be kept on hand by the user and applied when desired and also, if any one should become damaged, he can repair his own machine without sending it back to the factory for repairs.

The feature of making the printing blocks removable from the carrier in the manner shown is advantageous even though the carriers are not moved radially of the wheel during the printing operation, it being necessary only that there be a relative movement of the block and the platen to squeeze the check or other article operated upon between them, however, we prefer to move the block radially of the carrier or wheel, as shown.

We claim as our invention:

1. In a printing machine, the combination with a frame, a rotatable carrier thereon having radially extending notches, of a plurality of removable printing blocks mounted thereon having a printing surface, corresponding visible indicating portions projecting through said notches, spring connections between the blocks and carrier and a

movable plunger for operating the blocks outwardly relatively to the carrier.

2. In a printing machine, the combination with a frame, a rotatable carrier thereon having radially extending notches or recesses, of a plurality of removable printing blocks mounted on the carrier having printing surfaces and corresponding visible indicating portions projecting through said notches and normally retaining the blocks in printing position and permitting them to be removed when moved axially of the carrier and springs for holding the blocks in their normal position.

3. In a printing machine, the combination with a rotary wheel having the arms extending parallel with the axis thereof, and free at one end, of a series of removable printing blocks arranged between the arms and having projections cooperating with the outer sides of the adjacent arms and a spring on each block cooperating with the inner sides of said arms for holding the blocks in place and permitting their movement radially on the wheel.

4. In a printing machine, the combination with a rotary wheel, having radially extending notches, of a series of printing blocks arranged at the periphery of the wheel, springs for moving the blocks toward the center of the wheel and extensions on the blocks having shoulders lying in the notches and cooperating with the notches for preventing the longitudinal movement of the blocks on the wheel.

5. In a printing machine, the combination with a rotary wheel having the arms, of the removable and interchangeable printing blocks having the projections at the sides engaging the arms and the springs connected to the blocks and engaging the arms and means for locking the blocks from longitudinal movement on the arms.

6. In a printing machine, the combination with a rotary wheel having the arms thereon and the notches, of removable printing blocks having the springs engaging the arms and the shoulder engaging the notches in the wheel.

7. In a printing machine, the combination with a rotary wheel having the notches and the arms, of the removable and interchangeable printing blocks having the projections at the sides engaging the arms, and the springs also at the rear for engaging the arms, and the shoulder for preventing longitudinal movement of the block and the knob at the end.

8. In a printing machine, the combination with a rotary carrier having the arms thereon, of the removable printing blocks having projections engaging the outer sides of the arms, the single spring on the rear side having the free ends adapted to engage the inner sides of the arms on the wheel.

9. In a printing machine, the combination with the rotary carrier, of the removable printing blocks mounted on the carrier and movable radially thereof, and having the centering projections thereon, and a movable centering device for engaging the projections on the blocks.

10. In a printing machine, the combination with the rotary carrier, the printing blocks mounted on the carrier movable radially thereof, and having the centering projections thereon, of a plunger movable in stationary guides and adapted to cooperate with any of the blocks to cause their projection, and a movable centering device cooperating with the plunger to cause the centering of the carrier before the printing block is moved by the plunger.

11. In a printing machine, the combination with the rotary carrier, the printing blocks movable radially thereof and having the centering projections thereon, of a movable plunger with which the blocks are adapted to cooperate, means for operating the plunger, and a centering device operated by the plunger and cooperating with the centering projections on the blocks.

12. In a printing machine, the combination with a movable carrier, printing blocks movable thereon, and forming centering projections, of a plunger for cooperating with the blocks, means for operating the plunger, a device cooperating with the projections to center the carrier, and a spring interposed between the plunger operating means and the centering device.

13. In a printing machine, the combination with a rotary carrier, radially movable printing blocks carried thereby, and forming centering projections, of a movable plunger, a lever for operating the plunger, and a device cooperating with the projections to center the carrier and operated by the lever.

14. In a printing mechanism, the combination with a rotary wheel having the arms, a printing block having the pointed rear end, a wheel centering device adapted to engage said end, the projections at the sides of the blocks adapted to engage the arms and springs extending over the projections and also adapted to engage the arms.

15. In a printing mechanism, the combination with the casing having an aperture at the bottom, and another aperture, of a carrier in the casing freely rotatable in either direction, a series of removable and interchangeable printing blocks on the carrier and movable radially thereof to print, a movable plunger arranged in stationary guides and arranged to cooperate with the rear side of the blocks on the carrier, and means for centering and positioning the blocks, operated when the plunger is operated to project one of them.

16. In a printing machine, the combination with a rotary carrier, having the arms free at one end, of a series of removable and interchangeable printing blocks, on the carrier, each having projections and springs at the sides for engaging the arms on the carrier said blocks being capable of removal by a movement longitudinally of the arms.

17. In a printing machine, the combination with a rotary carrier and laterally extending projections thereon, of independently removable printing blocks fitting between said projections and means carried on each block and cooperating with the projections on the carrier to yieldingly retain them in operative position and allow said blocks to be moved relatively to the carrier in a radial direction thereon.

18. In a printing machine, the combination with a rotary carrier, of a series of removable printing blocks having a type form provided with a knob containing a designating numeral corresponding to the type form, and means for attaching said blocks to the carrier whereby the blocks with their respective knobs may be removed.

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Witnesses:

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