

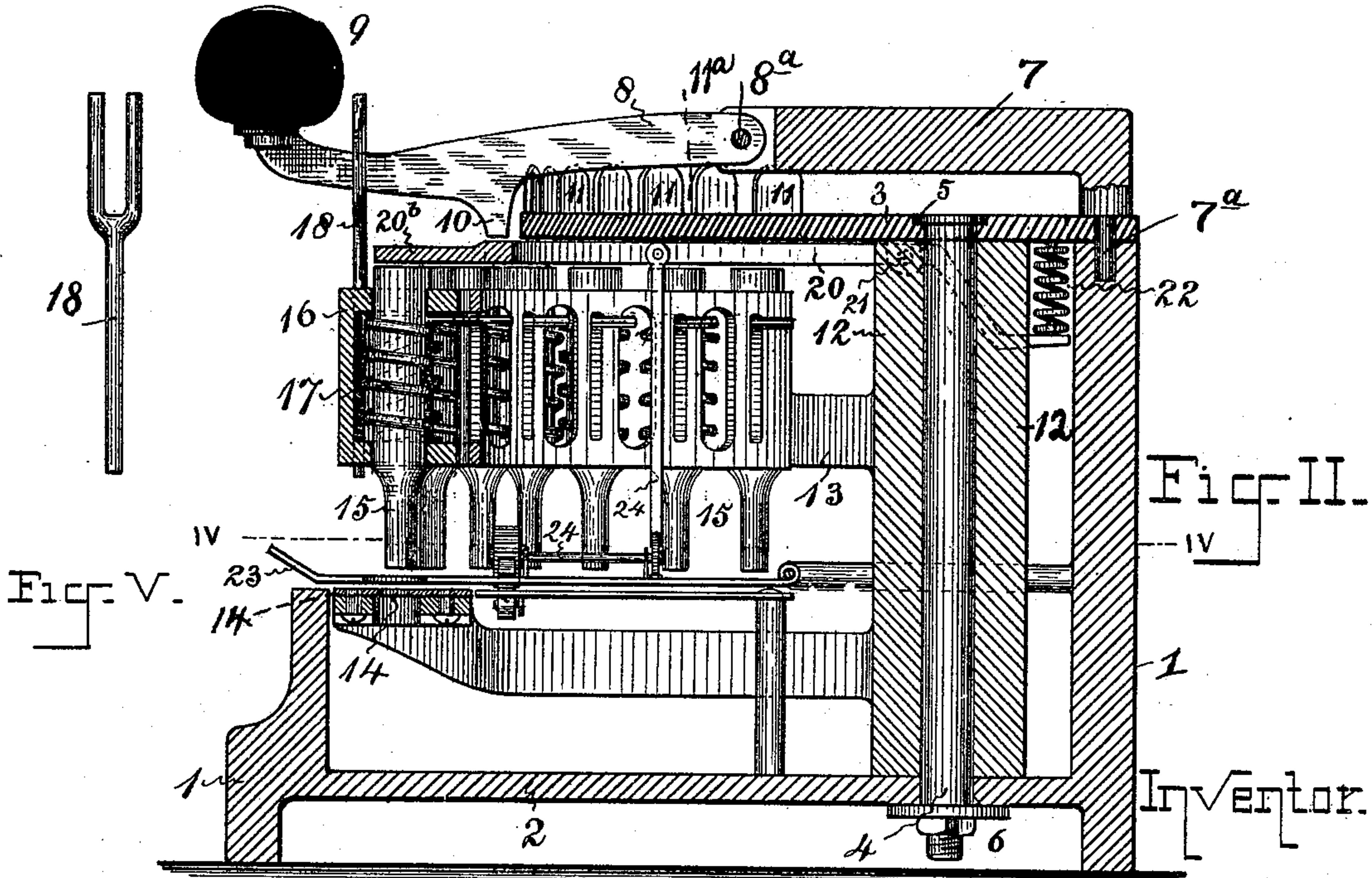
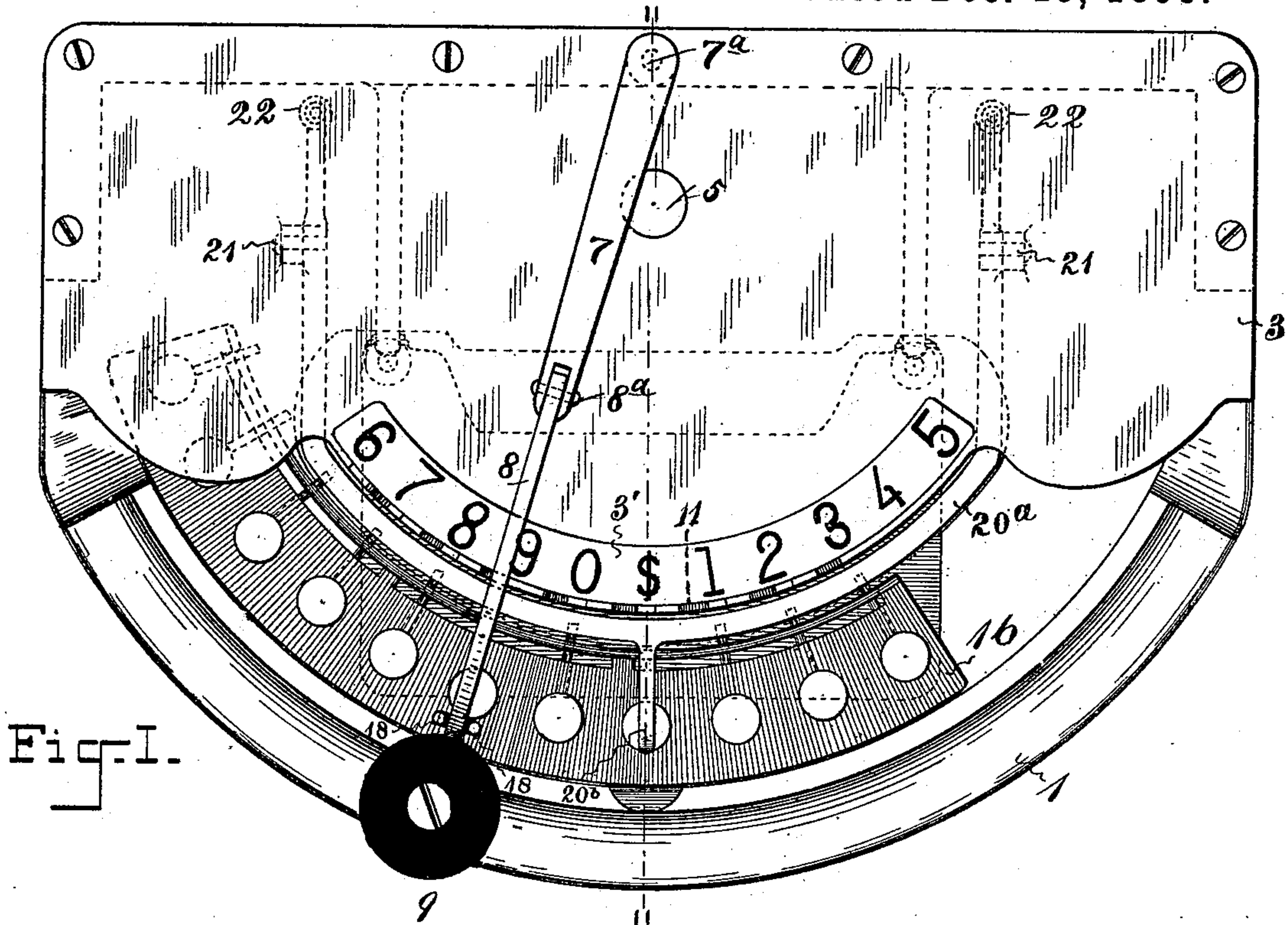
(No Model.)

2 Sheets—Sheet 1.

J. N. WILLIAMS.
MACHINE FOR PUNCHING CHECKS.

No. 511,313.

Patented Dec. 19, 1893.



Witnesses

Silvia Bangs
Chas. W. Thomas

John Newton Williams
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Attys

(No Model.)

2 Sheets—Sheet 2.

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Fig. III

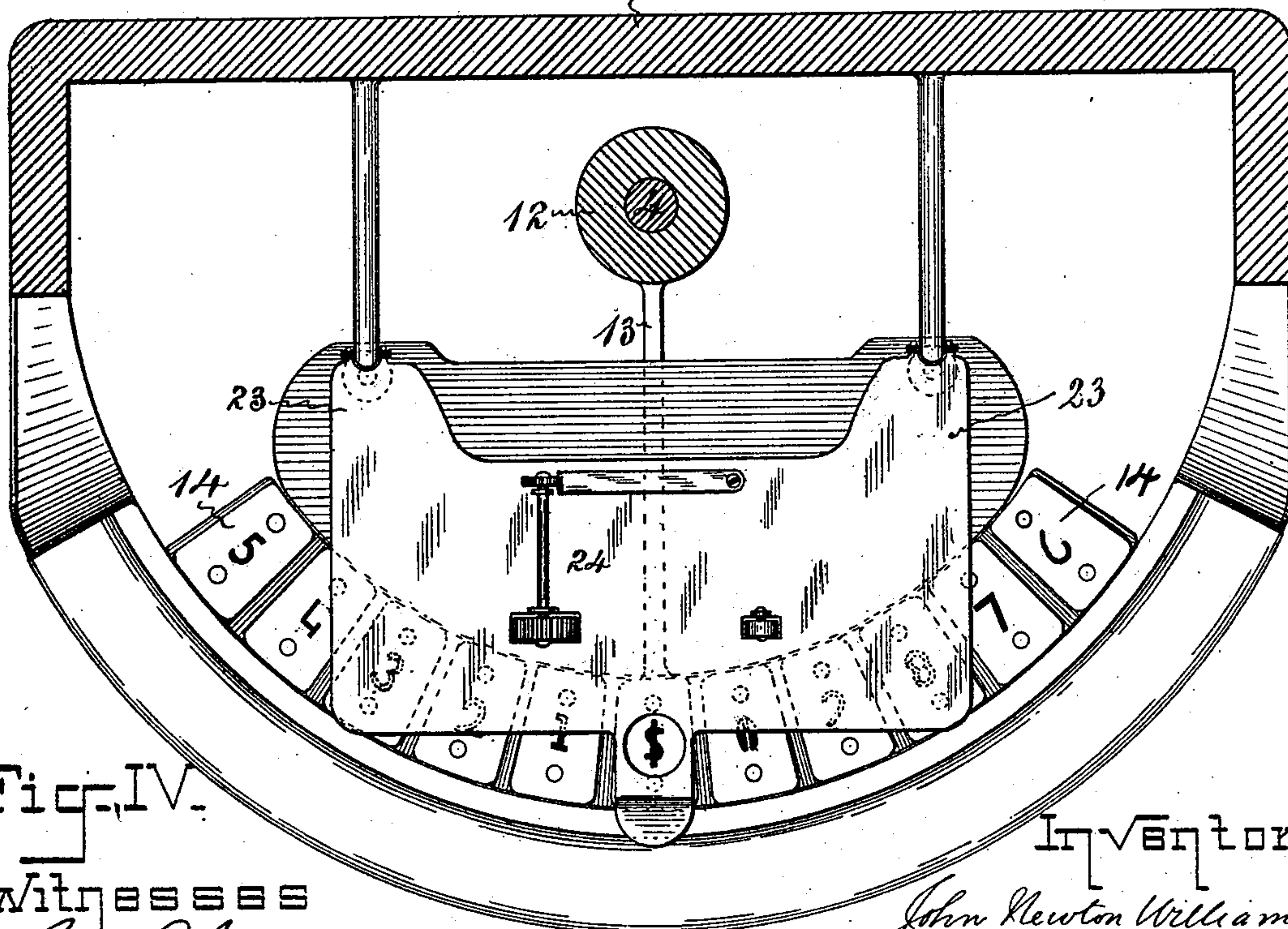
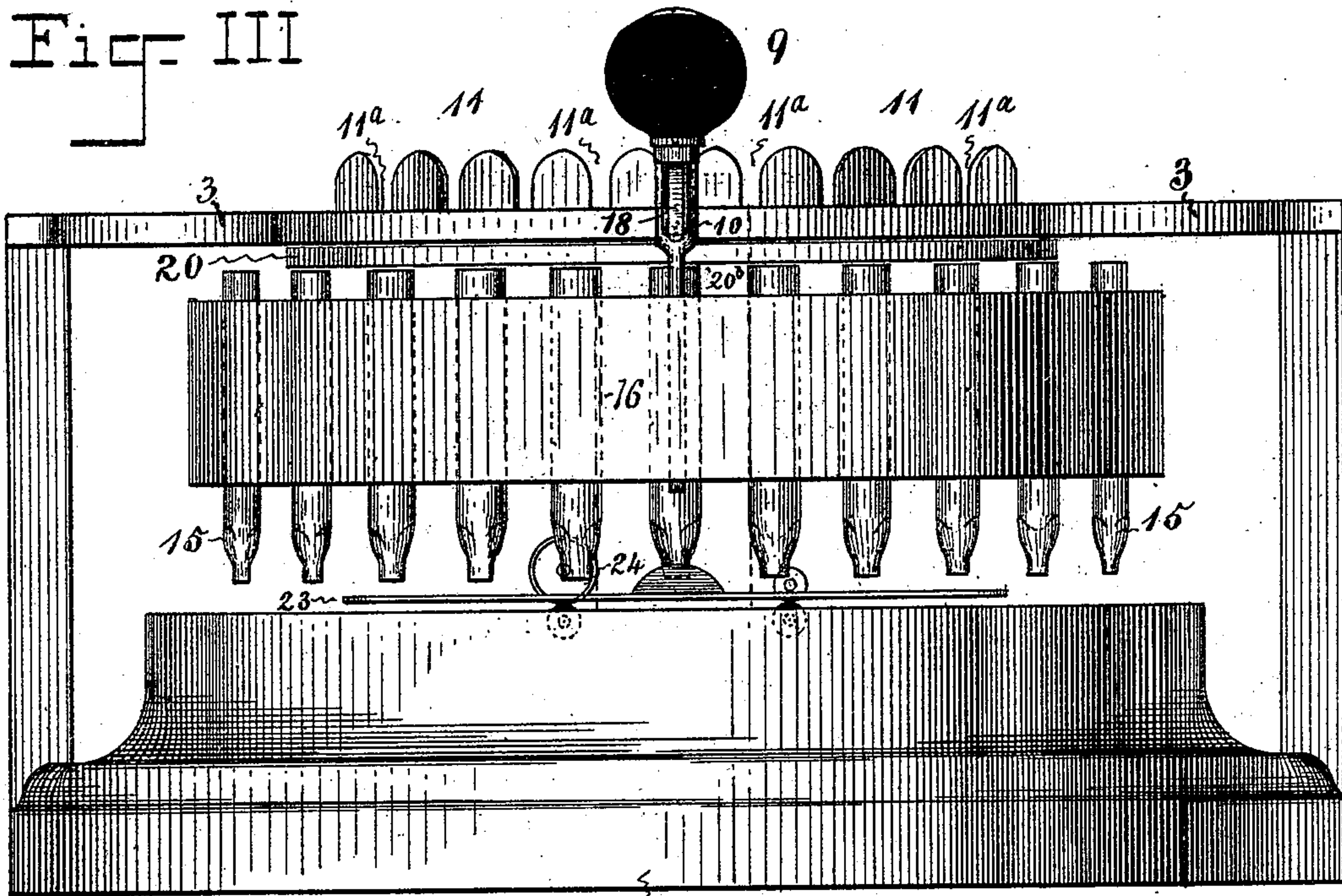


Fig. IV.

Witnesses

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UNITED STATES PATENT OFFICE.

JOHN N. WILLIAMS, OF BROOKLYN, NEW YORK.

MACHINE FOR PUNCHING CHECKS.

SPECIFICATION forming part of Letters Patent No. 511,313, dated December 19, 1893.

Application filed July 22, 1892. Renewed November 27, 1893. Serial No. 492,156. (No model.)

To all whom it may concern:

Be it known that I, JOHN N. WILLIAMS, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Machines for Punching Checks, of which the following is a specification.

My invention is an improvement in means for punching characters representing value, on bank-checks, drafts, promissory notes, and other like documents, and relates particularly to those check-punching machines in which the punching-mechanism is adjusted to the document, the latter remaining at rest. For use with sums of more than one digit, there is the customary provision for shifting the sheet automatically one character-distance backward at each recoil of the punch.

In the accompanying drawings; Figure I is a top view of a machine embodying my improvements. Fig. II is a vertical section on the line II—II. Fig. III is a front elevation. Fig. IV is a horizontal section on the line IV—IV. Fig. V is a front view of the finger lever guide, detached.

1 is a main frame, which may be of cast iron. Horizontal plates, one plate 2 near the bottom and the other plate 3 at or near the top of the frame, afford bearings for a vertical pivot 4 whose part above the plate 3 has an expansion or head 5 and whose part below plate 2 has a screw-nut and washer 6 whereby it may be securely fastened to the frame.

7 is a horizontally swinging arm pivoted at 7^a in the frame and having vertically hinged thereto at 8^a midway across the frame the lever 8 whose free end has a knob or handle 9 by which said lever with arm 7 may be shifted to right or left in a horizontal arc about the pivot 7^a or said lever may be vibrated in a vertical arc about the fulcrum 8^a. The lever 8 has a downward projection or tongue 10.

The plate 3 is inscribed (in an arcuate group concentric with the pivot 4) with an index 3' made up of characters identical with those on the punches but reversely arranged. Concentric with this index is a rack 11 whose notches 11^a serve to guide and retain the lever 8 accurately to any selected position.

Loosely journaled upon the pivot 4 is a hub or sleeve 12 which carries a vibratable punch

or horizontally swinging frame 13 which has, at its lowest part, an arcuate group of dies 14 which correspond to a group of punches 15 that occupy sockets 16 in the upper part of said swinging frame. Each punch is normally retracted by means of a suitable spring 17.

The tines of a finger lever guide or fork 18 on the swinging frame embrace the lever 8 and thus compel the said frame to share the horizontal oscillations of said lever. The fork is open at top to allow the lever to be folded back against the arm on the top of the machine when desired, and may be swiveled in the punch-supporting frame to permit the lever to move freely.

20 is a punch-depressing plate or yoke which is hinged at 21 to the upper plate 3 and has its front portion upheld by springs 22. Said portion has the form of a circular arc of the same radial distance from pivot 4 as the tongue 10. Extending forward from the midlength of this arcuate portion 20^a is a finger 20^b whose free extremity being over the group of punches, any depression of said plate operates to depress whatever punch happens to be brought in alignment with said finger.

23 may represent a customary paper holder or spring clip for holding the document to be operated on.

24 may represent a customary attachment whereby recoil of the depressing mechanism operates to shift the document the proper distance rearward for the next punching action.

By pivoting the combined lever arm 7, 8 at the point 7^a, to the rear of the pivot 4 of the punch-mechanism, a greater sidewise movement is imparted to the punch-mechanism with a slight shifting of lever arm 7, 8 than is possible where both have the same pivotal support. Furthermore, the arranging of the vertical pivot 8^a forward of the horizontal pivots 4 and 7^a, and midway across the main frame brings the fulcruming point 8^a so much nearer the point of work (*i. e.*, the point of impact of projection 10 on yoke or plate 20) as to materially increase the leverage.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. In a check punching machine, the combination of the stationary frame, a punch and

die carrying frame pivoted thereon so as to swing horizontally and having its punches forward of its pivot, a punch depressing plate pivoted so as to vibrate vertically and a doubly pivoted handle or lever projecting forward over and operating said punch depressing plate for shifting said punch and die carrying frame, pivoted on the stationary frame independently of the punch and die carrying frame, and of the punch depressing plate, and a connection between the lever and the punch and die carrying frame, the said connection being forward of the pivot of the lever on the stationary frame, substantially as set forth.

2. The combination, with the main frame, the vertical main pivot, the horizontal swinging frame hinged to the main pivot, having an upper part provided with punch-sockets, and a lower part provided with a group of dies corresponding to the position of the punch-sockets, spring-punches working in the punch-sockets, and the spring punch-depressing plate; of the arm 7 pivoted on said main frame in rear of main pivot so as to be capable of horizontal movement, and the lever 8 pivoted on said arm so as to be capable of vertical movement; and connected to said swinging frame, substantially as described.

3. The combination, with the main frame,

the vertical main pivot, the horizontal swinging frame hinged to the main pivot, having an upper part provided with punch-sockets, and a lower part provided with a group of dies corresponding to the position of the punch-sockets, spring-punches working in the punch-sockets, and the spring punch-depressing plate; of the guide 18 on the swinging frame, the arm 7 having capacity for horizontal vibration over said main pivot, and the lever 8 embraced by said guide and having capacity for vertical vibration about a fulcrum located midway across the main frame on the arm; substantially as described.

4. The combination of the main frame having lower plate 2 and upper plate 3, vertical main pivot 4 having bearings in the plates, the hub or sleeve 12 having a swinging frame 13, provided at its lower part with a group of dies 14, and at its upper part with a group of punches 15, the punch-depressing plate, the horizontally swinging arm 7 pivoted to the rear of the main pivot, and the vertically swinging lever 8 hinged to the arm, and the lever-guide 18 secured to the swinging frame; substantially as described.

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Witnesses:

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