

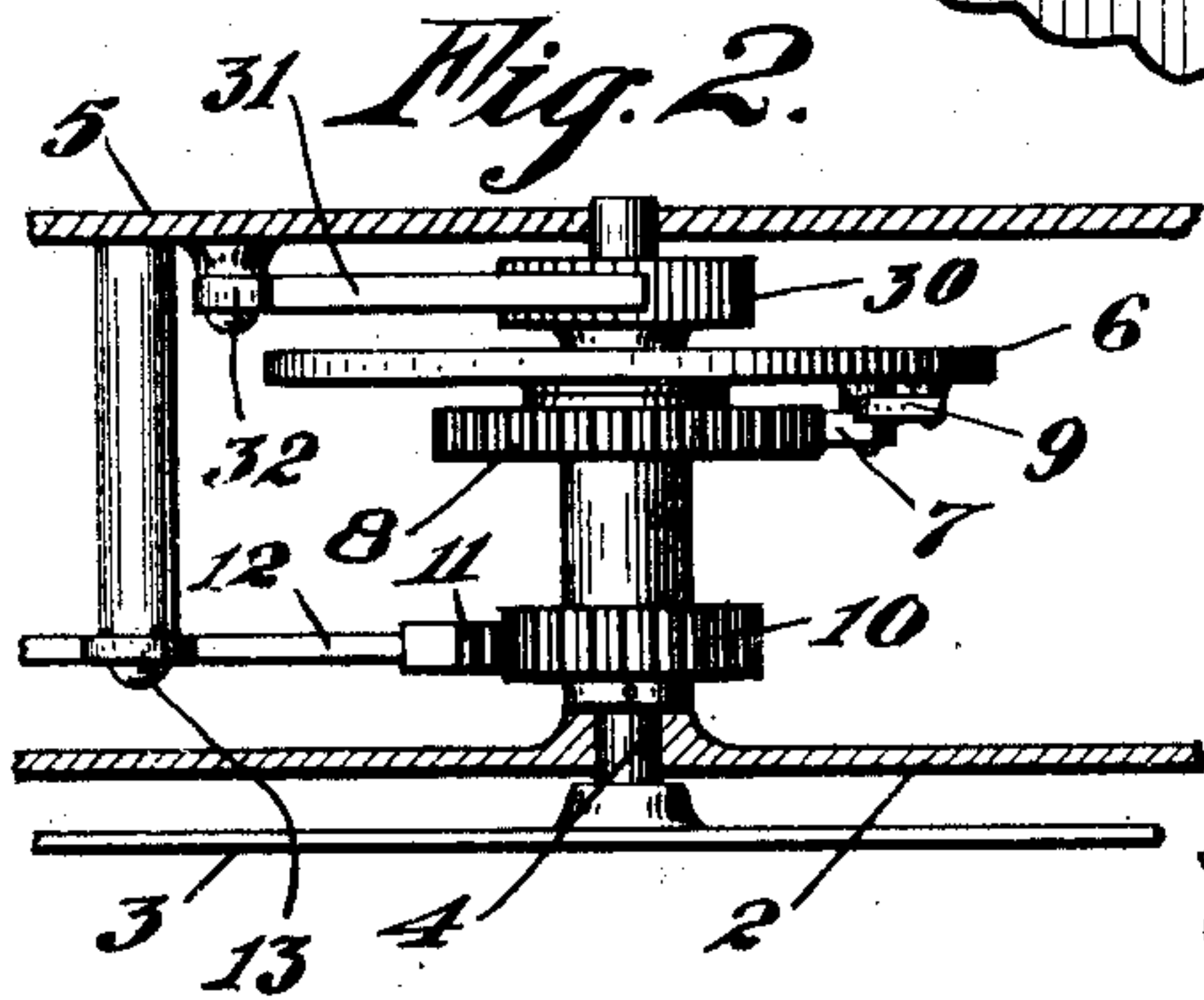
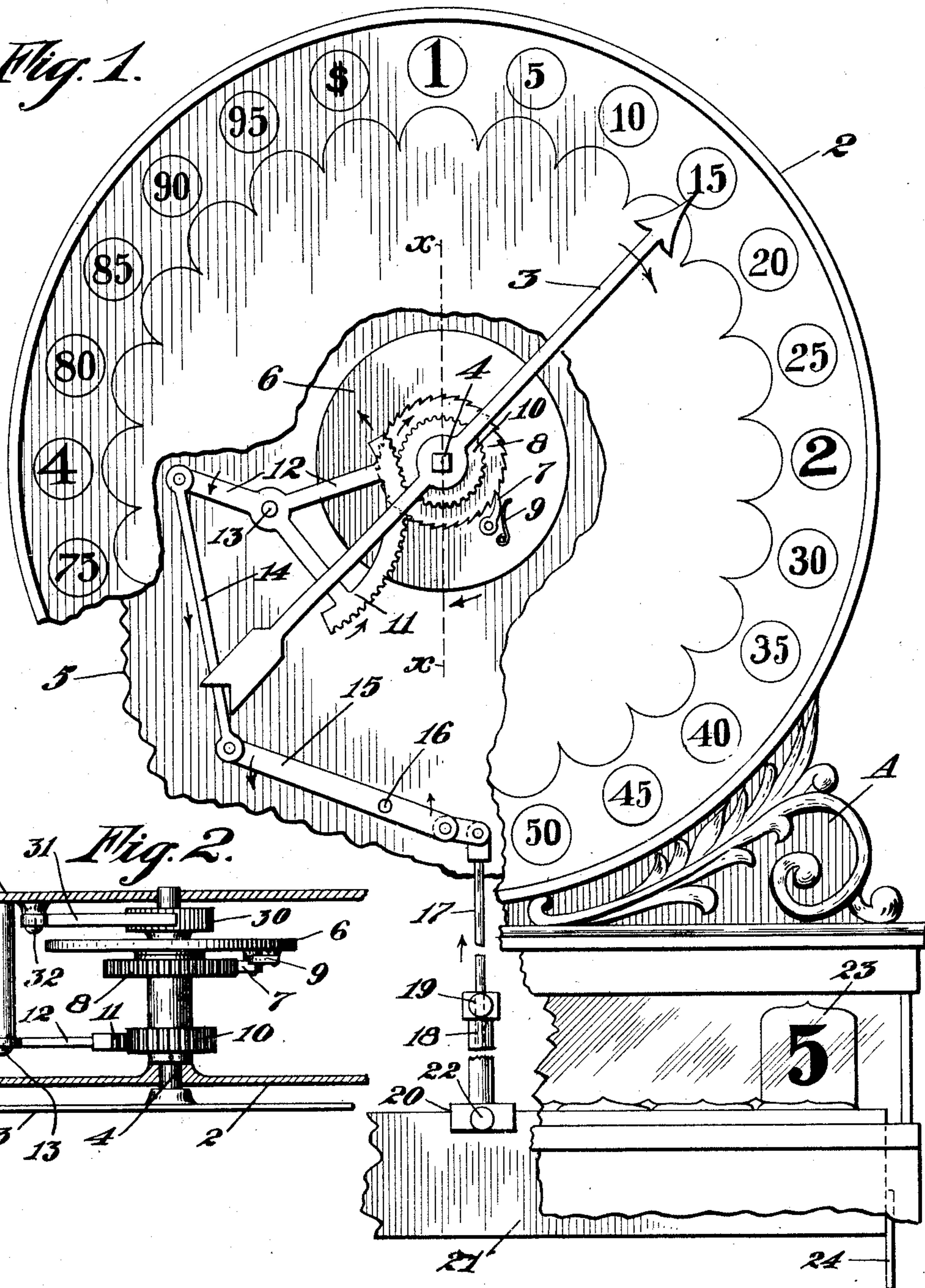
C. W. PAGE.
INDICATING ATTACHMENT FOR CASH REGISTERS.
APPLICATION FILED JUNE 8, 1910.

978,635.

Patented Dec. 13, 1910.

2 SHEETS—SHEET 1.

Fig. 1.



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J. Bashley

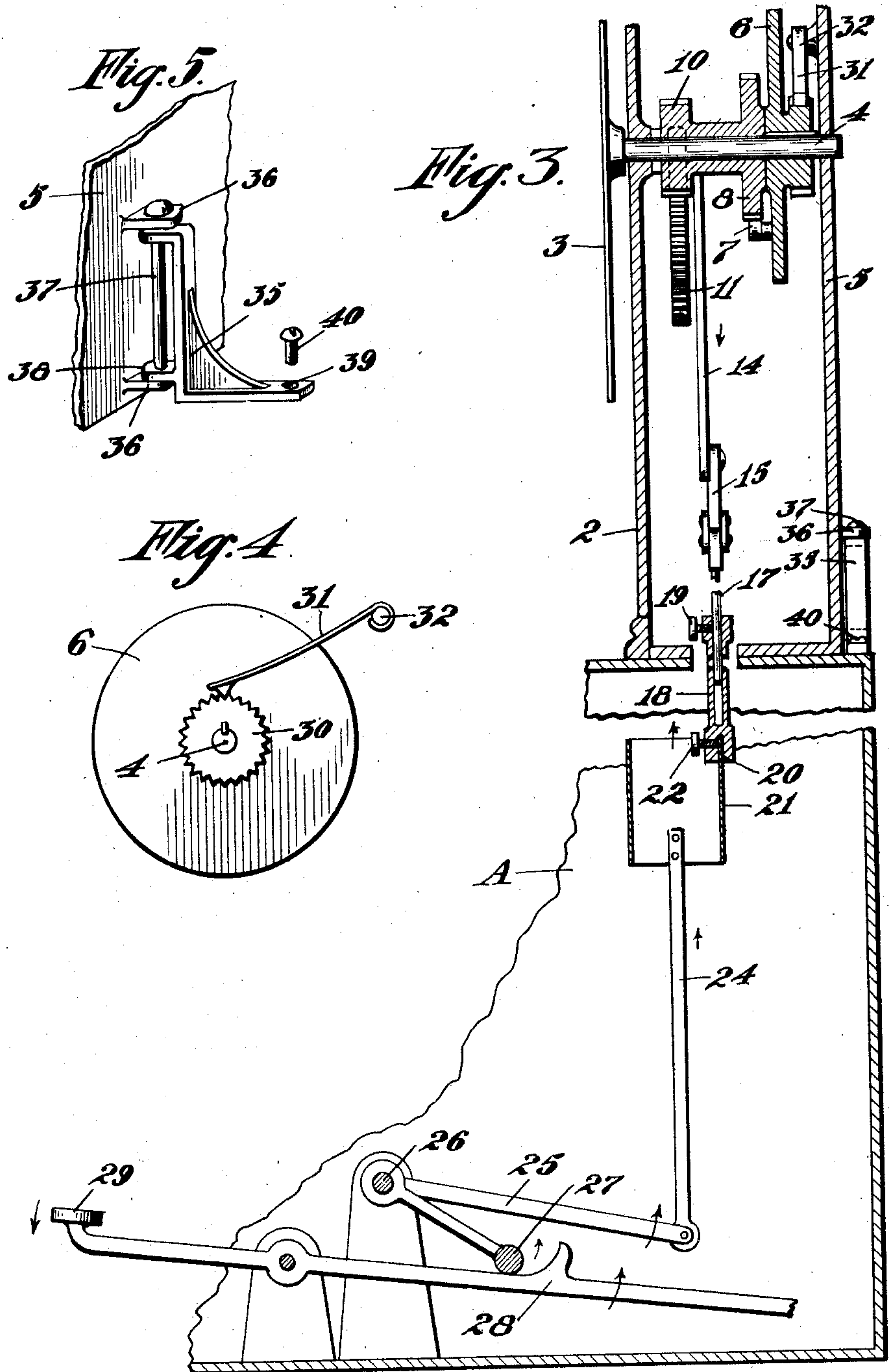
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2 SHEETS-SHEET 2.



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UNITED STATES PATENT OFFICE.

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INDICATING ATTACHMENT FOR CASH-REGISTERS.

978,635.

Specification of Letters Patent.

Patented Dec. 13, 1910.

Application filed June 8, 1910. Serial No. 565,715.

To all whom it may concern:

Be it known that I, CRAWFORD W. PAGE, citizen of the United States, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Indicating Attachments for Cash-Registers, of which the following is a specification.

This invention relates to an arrow-spinning attachment for cash registers.

It is the object of this invention to provide a device for mechanically spinning an arrow by the operation of the keys of a cash register, and which is adapted to be attached to most cash registers now in use.

A further object is to provide a mechanism for rotating an arrow on a spindle, that is simple in construction, positive in its action, and which will not easily get out of order.

This device is employed in conjunction with, and connected to, a cash register in such manner that as each key of the latter is operated to "ring up" the amount of a sale, an arrow on the device is caused to spin over a dial on which a number of figures, corresponding to the numerals in the cash register, are printed.

The device, in addition to being an advertisement to the merchant, acts as a check against errors, as every customer will watch the register and note the amount rung up.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a front elevation of the invention with parts broken away. Fig. 2 is a plan view of the arrow-impelling mechanism. Fig. 3 is a vertical section on the line X—X, Fig. 1. Fig. 4 is a detail in elevation of the brake device. Fig. 5 is a detail in perspective of a swiveled bracket.

In the drawings, A represents a cash register which may be of any suitable type or construction. A dial 2 is mounted on the upper edge or top of the cash register A in any desired manner, and has printed on its face various numerals which correspond with the numbers on the keys of the cash register A. An arrow 3 fixedly mounted on a horizontal shaft 4 extends in front of the dial 2 and is adapted to be rotated, as later described.

The shaft 4 is mounted in the dial 2 at one end and is supported at the other end in a casing 5, or other suitable bearing, and has a fly-wheel 6 keyed thereon. A pawl 7 on the fly-wheel 6 is adapted to be engaged by a ratchet disk 8 loosely mounted on the shaft 4, and is retained in engageable contact with the disk 8 by means of a spring 9. A pinion 10 is formed integral with the ratchet disk 8 and meshes with a toothed segment 11 mounted on a lever 12 fulcrumed at 13 on the casing 5. The pinion 10, and the ratchet disk 8 integral therewith, are adapted to be rotated by means of the tooth segment 11 and lever 12, as will be later described.

A link 14 connects the outer end of the lever 12 with the long arm of a lever 15 fulcrumed at 16 to the casing 5. The short arm of the lever 15 is linked to an adjustable vertically-disposed connecting rod 17. This rod 17 is adapted to extend into a sleeve 18 and is retained therein by means of a thumb-screw 19. The lower end of the sleeve 18 is slotted at 20, so that it may be placed upon the semaphore plate 21 in the cash register A and secured thereto by means of a thumb-screw 22. The semaphore 21 is that portion of a cash register which rises simultaneously with, and in front of, the indicating numerals 23, and temporarily shields the latter from sight whenever a key is depressed. This semaphore or shield 21 is usually constructed in the form of a plate, each end of which is supported upon a rod 24 connected to an arm or bell-crank 25 pivoted at 26. A lateral projection 27 on the short arm of the bell-crank extends across the rocking levers 28 of the cash register A, one of which is shown in Fig. 3, and is actuated through the lever 28 when a key or button 29 on the latter is pressed downward, in the well-known manner common to cash register machines.

The operation of the invention is as follows: Downward pressure on the key 29 raises the semaphore 21 upward through the bell-crank 25, which upward movement is transmitted to the connecting rod 17 and the short arm of the lever 15. The long arm of the lever 15 is thus caused to move in a downward direction, thereby pulling down on the outer end of the lever 12 through the link 14 which acts to rotate the

toothed segment 11 on the pivotal point 13 in an upward direction. The upward movement of the segment 11 causes the pinion 10 and ratchet disk 8 to rotate on the spindle or shaft 4 in the direction indicated by the arrows in Fig. 1. The ratchet disk 8, being in engagement with the pawl 7, transmits motion to the fly-wheel 6 which by reason of being keyed to the shaft 4 causes the latter to rotate and revolve the arrow 3 therewith. The upward movement of the segment 11 being quick, gives an impulsive motion to the ratchet 8 which tends to impel the fly-wheel 6 forward a number of revolutions after the ratchet 8 and pinion 10 have come to rest, the pawl 7 being free to move in this direction over the ratchet disk 8. The return movement of the segment 11 does not affect the fly-wheel 6 or arrow shaft 4, as the pinion 10 and ratchet 8 are free to move in a backward direction on the shaft 4.

As a means of insuring that the arrow 3 will stop upon or over a number on the dial 2, and not on the divisional line separating each number, the device shown in Fig. 4 is employed, which consists of an evenly toothed disk 30 formed on the back of the fly-wheel 6, and a spring pawl or detent 31 secured at 32 to the casing 5. The depressions between the teeth on the disk 30 correspond in number to, and bear the same relation on a radial line as, the numerals on the dial 2, so that when the arrow comes to a standstill, the wedge-shaped portion of the spring pawl 31 will, by reason of the tension of the spring, enter the notch between the teeth on the disk 30, and thereby bring the arrow 3 in alinement with the numbers on the dial 2. This arrangement insures against any question arising as to which number on the dial is indicated, as would possibly be the case if the point of the arrow stopped on a line between two numbers.

The casing 5, inclosing the operative mechanism of the invention, is provided on its rear side with two or more brackets 35 which are pivotally mounted on lugs 36 formed on the casing 5, a pin 37 passing through the lugs 36 and projections 38 on the brackets 35. The foot of each bracket is adapted to rest on the top of the cash register A, and is provided with a perforation 39 through which a screw 40 is passed and screwed into the top plate of the register A. These swiveled brackets 35 permit of the

casing 5 being secured to cash registers of different widths.

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

1. An indicating attachment for cash registers comprising the combination with a key of a cash register, of a dial, a freely moving pointer adapted to move thereover, a shaft to which the pointer is fixed, a ratchet-wheel loose on said shaft, a momentum member fixed to the shaft, a pinion rigid with the ratchet-wheel, a pawl engaging the ratchet-wheel, a segment engaging the pinion, and connections between the segment and the cash register key.

2. An indicating attachment for cash registers comprising the combination with a key, of a dial, a free moving pointer, pawl and ratchet members, one of which is carried by the pointer, the other of which is mounted independent thereof but having a limited movement in unison therewith, a gear carried on said independently mounted member, a segment meshing said gear, and means operated from the key for oscillating the segment, said means comprising a rod connected to the segment, a lever connected to the rod, and pivotally mounted between its ends, a sleeve carried by a movable part of the cash register, and a rod connected to the lever and having its lower end detachably fitted to said sleeve.

3. An indicating attachment for cash registers comprising the combination with a key, of a dial, a free moving pointer, pawl and ratchet members, one of which is carried by the pointer, the other of which is mounted independent thereof but having a limited movement in unison therewith, a gear carried on said independently mounted member, a segment meshing said gear, and means operated from the key for oscillating the segment, said last-named means including a semaphore plate, connections between the key and semaphore plate, and connections between the semaphore plate and said segment.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

CRAWFORD W. PAGE.

Witnesses:

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EDITH W. BURNHAM.