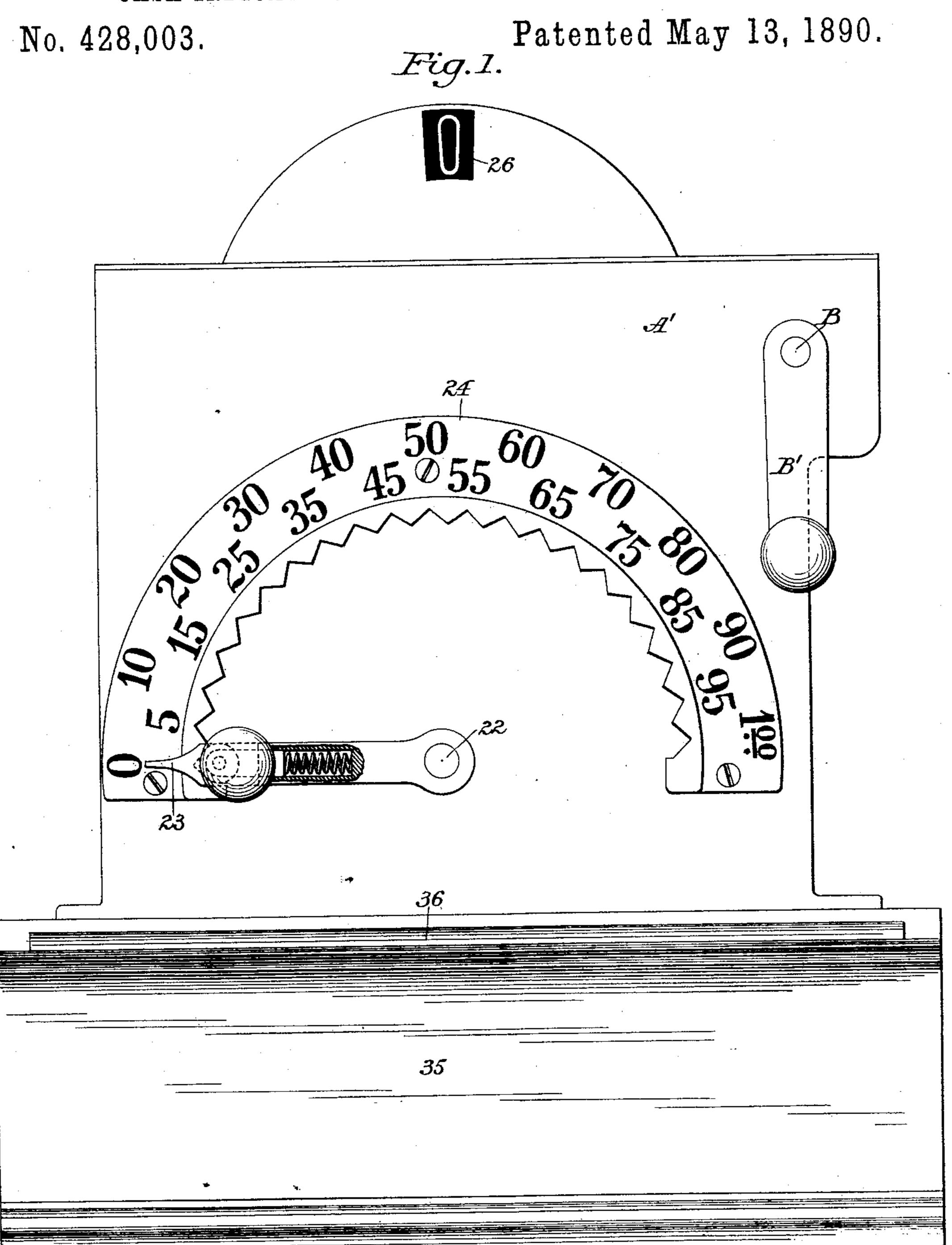
CASH INDICATING AND CHECK PRINTING MACHINE.



A.M. Jestera

Inventor:

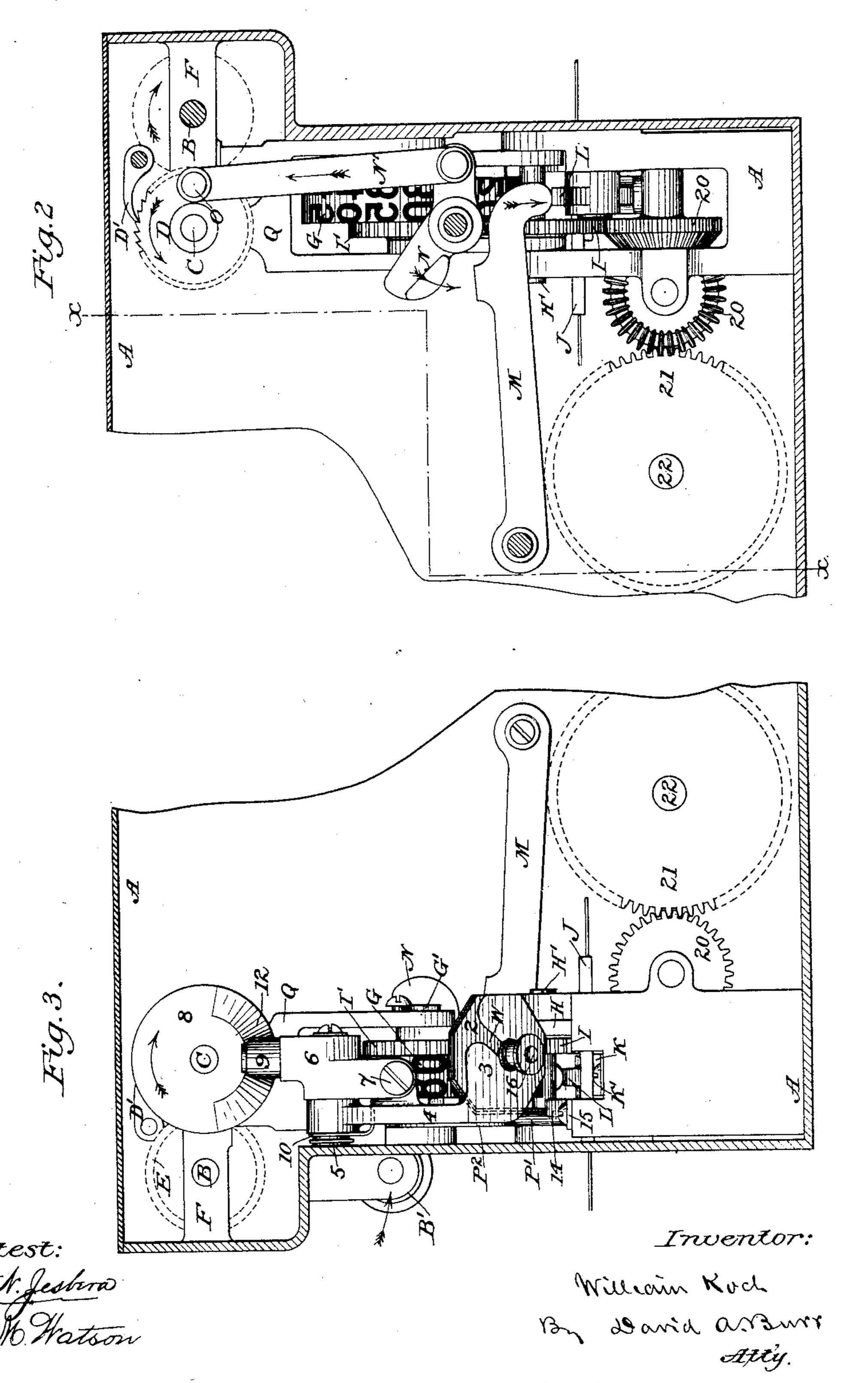
William Kuch By David assum Atty.

Ť.

CASH INDICATING AND CHECK PRINTING MACHINE.

No. 428,003.

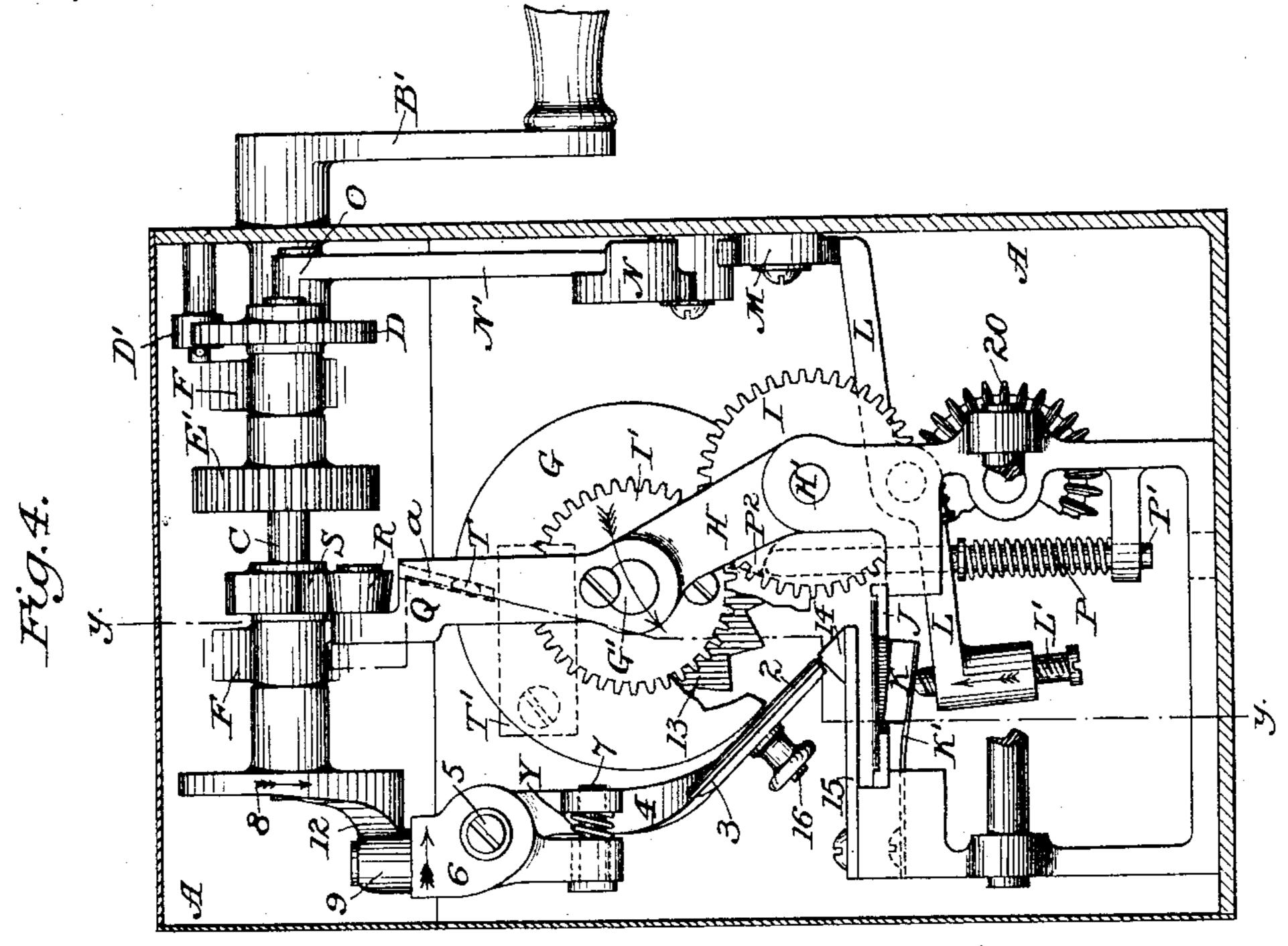
Patented May 13, 1890.

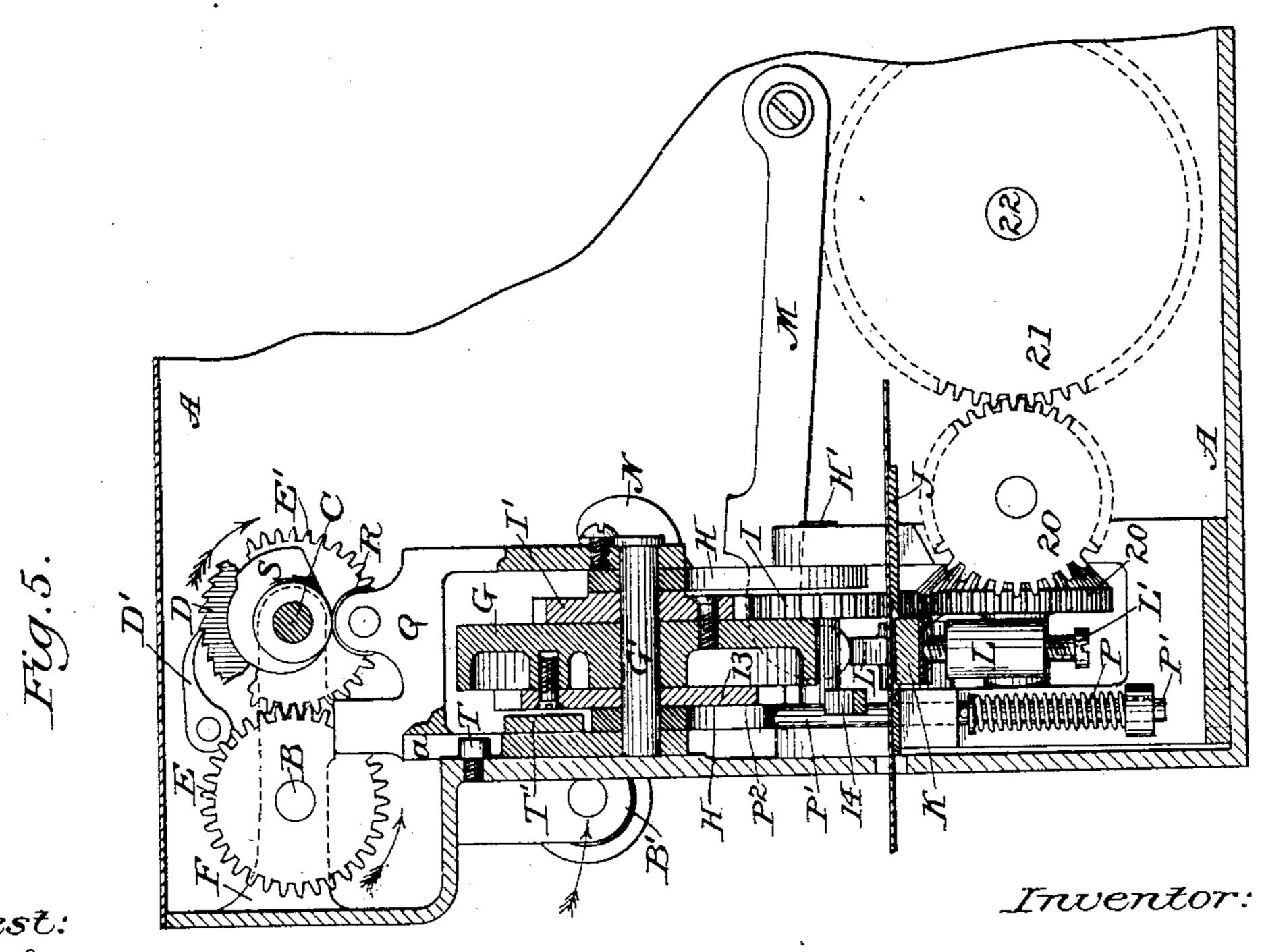


CASH INDICATING AND CHECK PRINTING MACHINE.

No. 428,003.

Patented May 13, 1890.





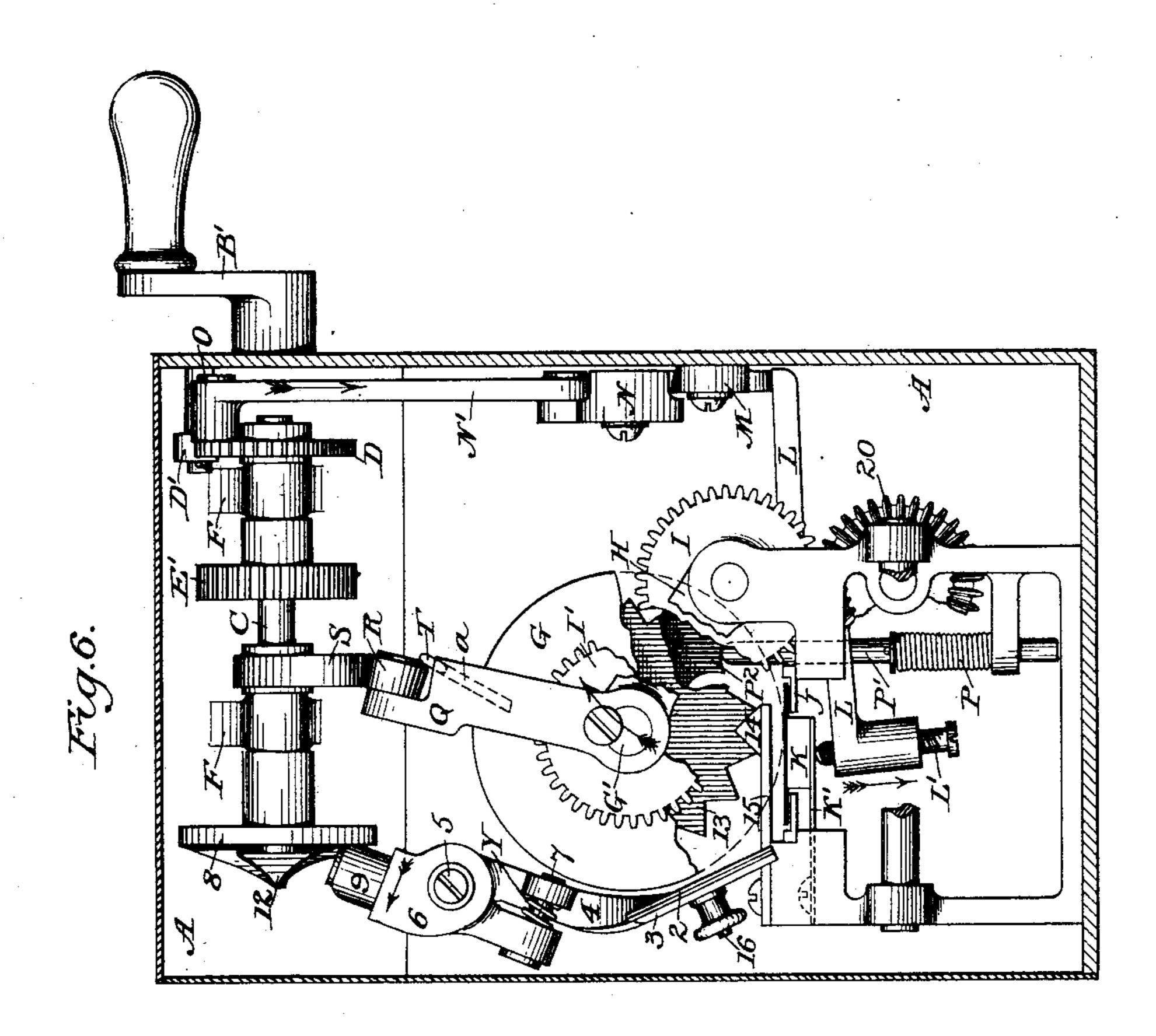
Attest: AM. Jesbera

William Koch By David as Burr Atte.

CASH INDICATING AND CHECK PRINTING MACHINE.

No. 428,003.

Patented May 13, 1890.



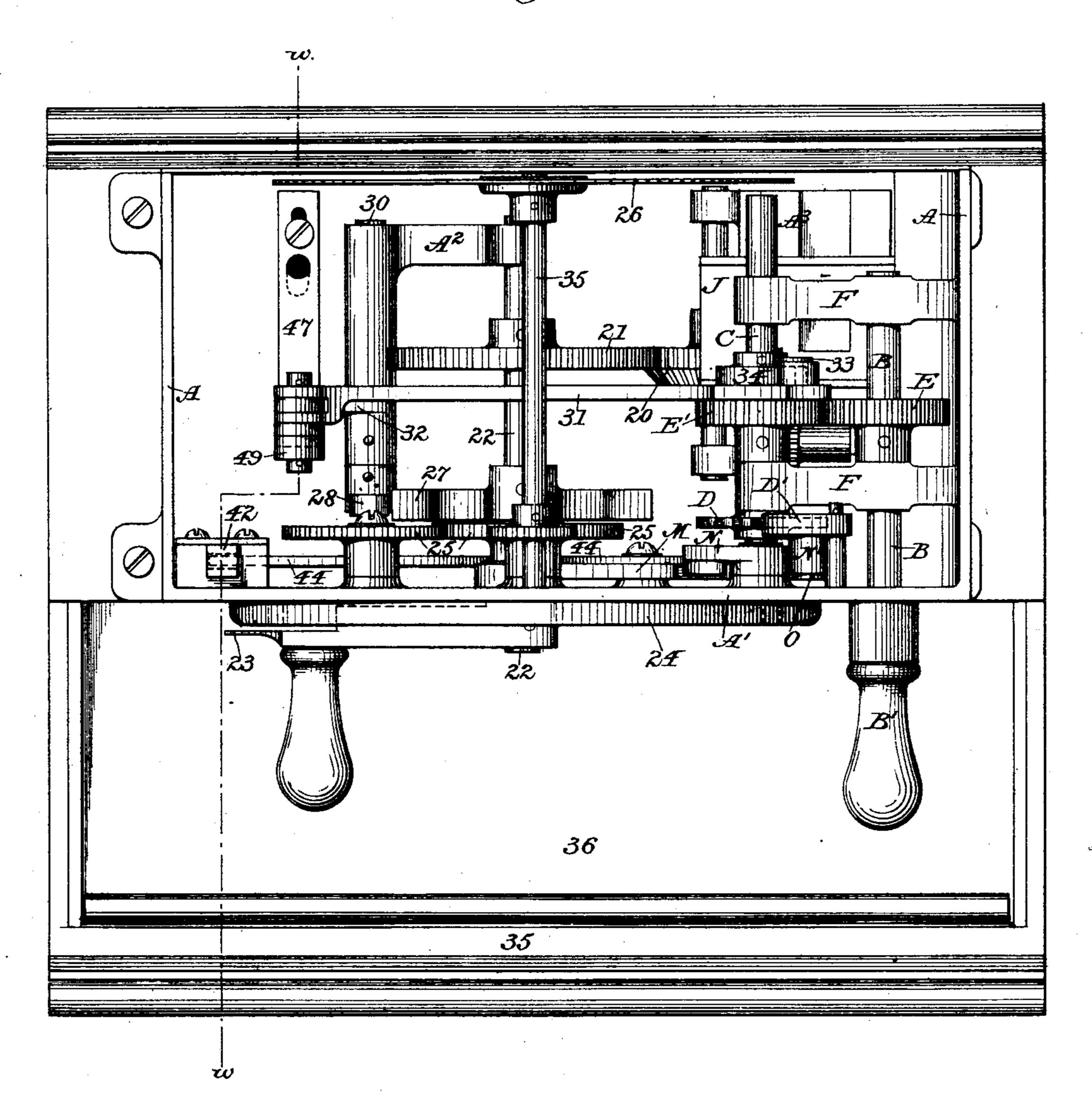
6. M. Watson

Inventor: William Kod By David and more

CASH INDICATING AND CHECK PRINTING MACHINE.

No. 428,003.

Patented May 13, 1890.



Attest: Allesbora

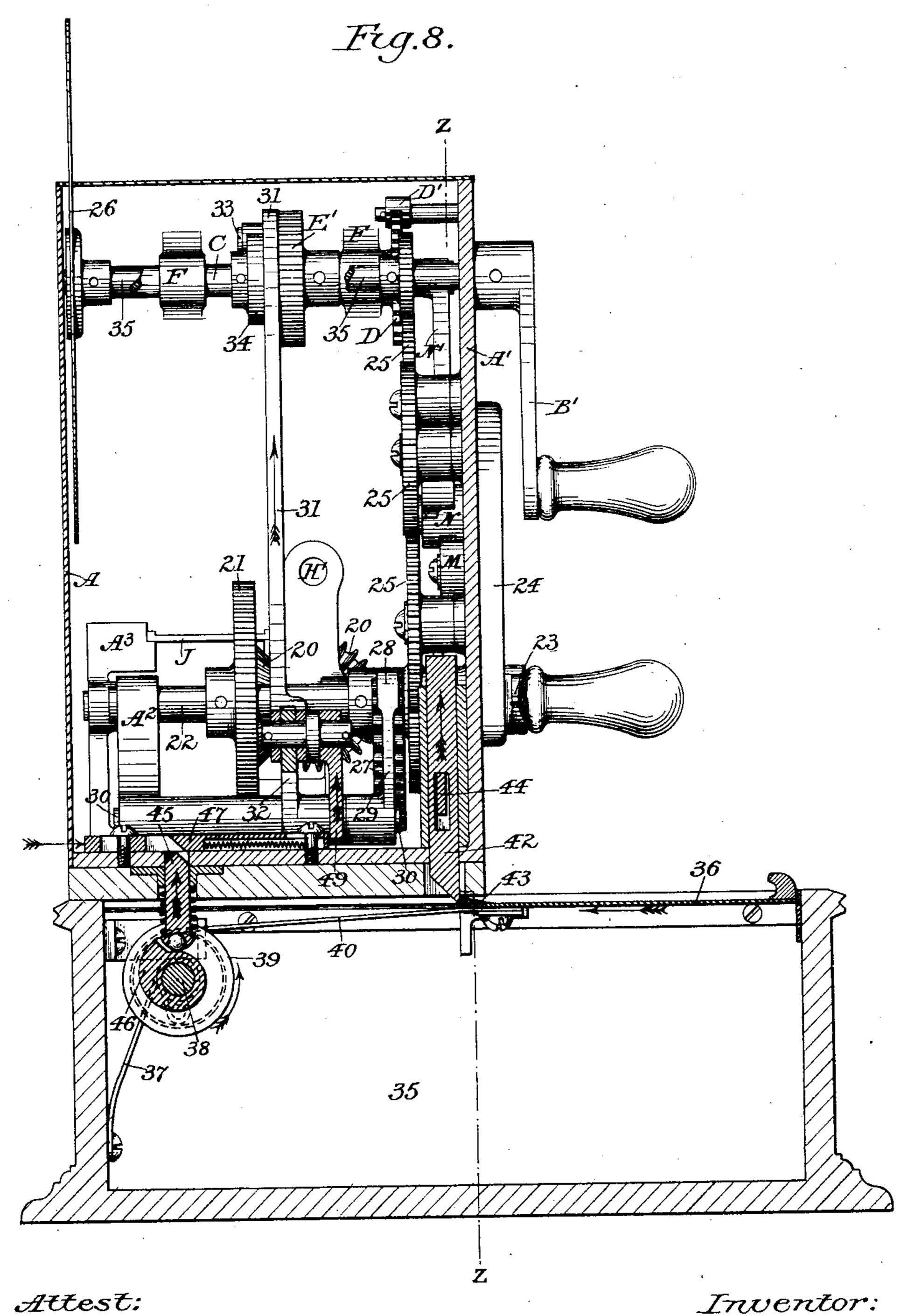
Inventor:

By David assuri

CASH INDICATING AND CHECK PRINTING MACHINE.

No. 428,003.

Patented May 13, 1890.



Attest: A. K. Jeshmo

8. Mothation

William Koch
By David assurr
Htty.

(No Model.)

W. KOCH.

CASH INDICATING AND CHECK PRINTING MACHINE.

No. 428,003.

Patented May 13, 1890.

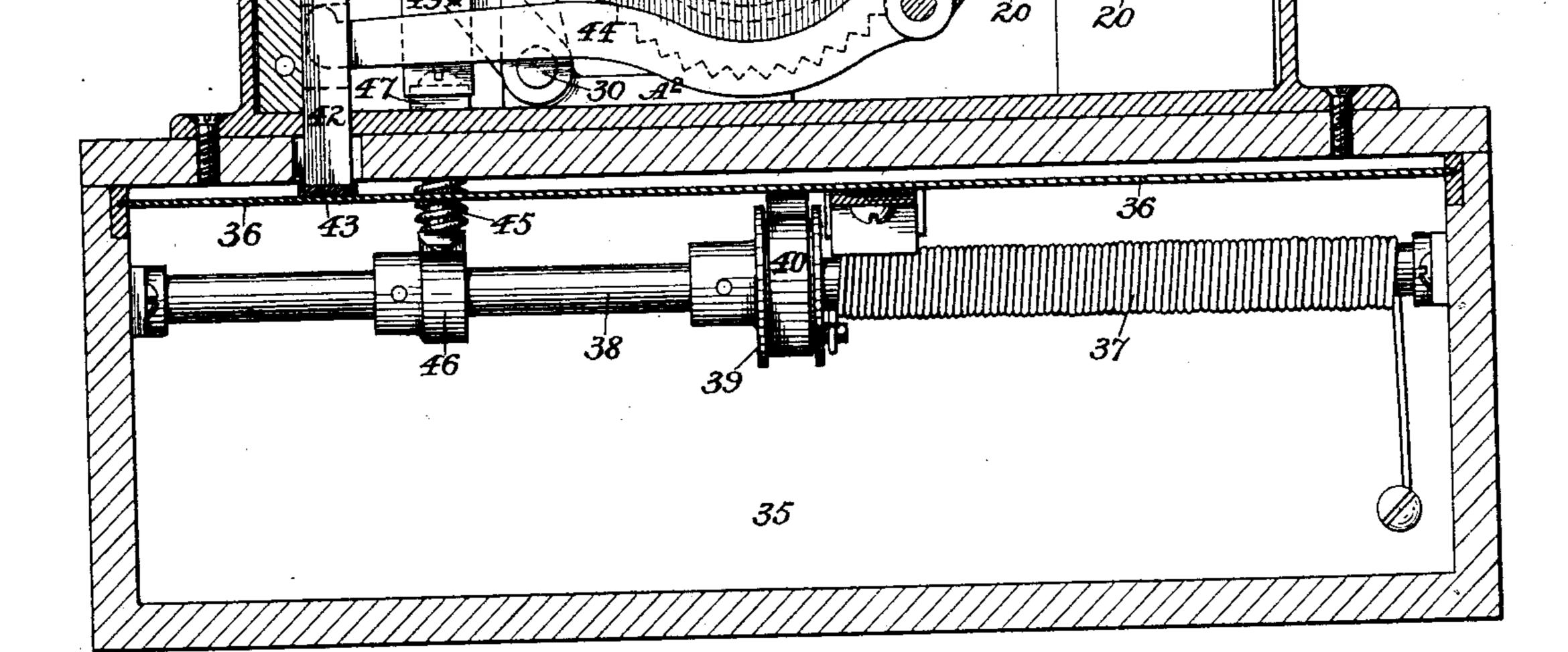
FEG.9.

50 1005

26 July 25

25 July 25 July 25

25 July 25 Ju



Attest: All Jesbern. Ell. Watson

Inventor:

William Kich By David answer Herry.

## United States Patent Office.

WILLIAM KOCH, OF NEW YORK, N. Y., ASSIGNOR TO THE KRUSE CHECK AND ADDING MACHINE COMPANY, OF NEW YORK.

## CASH-INDICATING AND CHECK-PRINTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 428,003, dated May 13, 1890.

Application filed October 20, 1888. Serial No. 288,631. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM KOCH, of the city, county, and State of New York, have invented certain new and useful Improvements 5 in Cash-Indicating and Check-Printing Machines; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference to marked thereon, making a part of this speci-

fication, in which—

Figure 1 is a front elevation of my improved five-cent cash and check machine. Fig. 2 is a front view of a portion of the machine above 15 its base with the front plate of the casing removed, illustrating the printing devices alone, the remainder of the mechanism being omitted in the drawings; Fig. 3, a similar view from the immediately opposite or rear side of the 20 machine; Fig. 4, a transverse section in line x x of Fig. 2, presenting a side elevation of the printing devices in their normal position when at rest; Fig. 5, an irregular section in line y y of Fig. 4; Fig. 6, an elevation similar 25 to Fig. 4, but with the type-wheel shown in its operative position for imprint; Fig. 7, a top view of the machine with the top plate of the casing removed and the printing mechanism omitted to illustrate more clearly the 30 indicating and drawer-operating mechanism. Fig. 8 is a transverse section in line w w of Fig. 7, with the printing mechanism omitted to illustrate more clearly the indicating and drawer-operating mechanism and locking de-35 vices; Fig. 9, a vertical section of the machine in line z z of Fig. 8, embracing a view thereof similar to that in Fig. 2, but including the indicating and drawer-operating mechanism and locking devices, and excluding the

Similar letters and numerals indicate like

parts in all of the figures.

40 printing mechanism.

My invention relates to that class of cash and check machines which are provided with 45 a receptacle for the cash and in which the checks are printed from type formed or placed upon a revolving wheel, which is moved bodily toward the paper to produce an imprint thereon; and it consists in the novel devices here-50 inafter described and claimed for carrying

the type-wheel and printing-platen toward. each other on each side of the paper strip to be printed, moving the inking-pad to and from the type, positively locking the typewheel at the moment of imprint to prevent 55 any jar or movement thereof, positively locking the indicating and type-setting mechanism during the movements of the printing mechanism and until the same are completed, and for actuating, locking, and releasing the 60

lid of the cash-receptacle.

The object of my invention is to simplify the construction and operation of the several parts, insure a perfectly clear impression from the type-wheel free from the blur which com- 65 monly mars the printing in machines of this class, and securely lock at such times as are appropriate the cash-receptacle and the indicating and printing mechanism, so as to prevent any false or fraudulent movements 70 thereof.

In the accompanying drawings, A represents the frame or casing of the machine, by means whereof its working parts are inclosed

and supported.

B is the crank-shaft by which the printing mechanism of the machine is operated; C, a cam-shaft mounted parallel with the crankshaft, preferably in the same horizontal plane, and geared therewith by the cog-wheels E E'. 80 The two shafts are fitted to revolve in suitable bearings in horizontal brackets F F, projecting from the inner side of the casing.

The crank-shaft B, extending at one end through the front plate of the casing, is pro-85 vided with a crank B', by which it is actu-

ated as required.

The cam-shaft C extends from front to rear of the machine wholly within the casing, as shown in Fig. 4, and is fitted at its front end 90 with a ratchet-wheel D, engaged by a pawl D' pivoted to the casing, and which operates to prevent a reverse movement of the shafts.

The type representing the numerals or other characters to be printed by the machine are 95 formed or secured upon the periphery of a wheel G. (See Figs. 2 to 6.) This type-wheel revolves freely upon an axle G', mounted at a right angle with the shaft B in the ends of two parallel swinging arms HH, secured to a roo 428,003

rock-shaft H', mounted below the wheel in suitable bearings provided therefor, so that the type-wheel may swing under the shaft B in a vertical plane coincident with the axis 5 thereof.

A transmitting-pinion I is mounted to revolve upon the shaft H', and mesh with a corresponding pinion I', secured to one face of the type-wheel concentrically with its axis, 15 whereby the type-wheel may be revolved, so as to bring any of the peripheral type into line of print. The transmitting-pinion I is geared by a bevel-gear 20 to a large spurwheel 21 upon the shaft 22 of an indicating 15 device, to be hereinafter described, and by which the amount to be printed or recorded is designated.

A horizontal printing-table J is formed parallel with the shaft II', to receive and support a 20 strip of paper immediately under the periphery of the wheel, so that the type thereon may be brought into contact with the paper in proper position for imprint, when the wheel, swinging upon its radial arms H H, drops to-25 ward the table. The paper to receive the imprint may be fed forward over the table or guideway into and out of line of print by hand, or by any of the well-known feeding devices employed in this class of printing-30 machines, and which need not be herein de-

scribed. To insure a perfect impression of the type upon the paper, an opening is cut through the table at line of print, and a platen K, prop-35 erly faced with rubber or other elastic material, is fitted upon the end of a spring-plate K', (see Fig. 4,) which permits it to move up through the opening, so as to contact with the type in line of print or bear the interposed 40 piece of paper against the type. The action of the spring operates to move the platen away from the type. The movement of the platen toward the type is effected at the proper moment by means of a pivoted lever L, one arm 45 of which is fitted to bear upward against the under side of the platen, and the other, extending to the front of the machine, is brought under the free end of a lever M of the third class, pivoted to the front plate of the casing 50 and which rests thereon. This lever M is depressed to cause an upward movement of the platen K at each revolution of the crank-shaft by means of a rocking lever N, coupled at one end by a link N' to a wrist-pin O upon the 55 face of the ratchet-wheel D. (See Figs. 2 and 4.) A set-screw L', fitted in the end of the actuating-arm of the lever L to bear against the platen K, permits of an adjustment of the movement of the platen with reference to the 60 type-wheel G. The type-wheel is automati-

cally thrown up clear of the printing-table J by means of a spiral spring P, actuating a vertical rod P', disposed to bear upwardly against a projection or toe  $P^2$  upon one of the swing-65 ing arms H. (See Figs. 4 and 5.) It is depressed to bring its type into contact with the

paper on the printing-table by means of a l

upper end is fitted with a beveled frictionroller R, as shown in Fig. 4, to be engaged by 70 the periphery of a cam S upon the shaft C, so that at each revolution of the cam the typewheel will be caused to swing downward upon the rock-shaft H' as a pivotal center.

yoke Q, pivoted upon its axle G', and whose

The yoke Q is upheld in a vertical position 75 under the cam S by means of a pin T, projecting from the casing of the machine into a slot a, cut diagonally in the length of one of the lateral arms of the yoke, as shown in Fig. 5 and dotted lines, Fig. 4. The slot a allows 80 the yoke to move downward with the wheel and guides it in its movement. The yoke is also confined in its movement by means of a plate T', fitted to an offset on the casing to project over the slotted arm of the yoke, 85 against its inner face, parallel therewith, as shown in Fig. 5 and by dotted lines in Fig. 4.

The type are inked before passing to line of print by means of an inking-pad 2, upon a plate 3, secured to the end of a swinging 90 arm 4, pivoted upon a stud-axle 5, projecting inwardly from the frame or casing of the machine at a right angle with the cam-shaft B, and under the inner end of said shaft. A rocking lever 6 (see Figs. 3, 4, and 6) is piv- 95 oted upon the same stud-axle 5. One arm of said rocking lever is coupled to the swinging arm 4 by means of a pin 7, (see Figs. 4 and 6,) projecting from the arm through an aperture in the lever and having a wide head 100 upon its outerend to prevent their disconnection, and which is fitted with an encircling spiral spring Y, interposed between the arm and lever, so as to permit an independent movement of the arm against the stress of 105 the spring. The opposite free arm of the rocking lever is fitted with a friction-roller 9, to bear against the outer face of a cam-wheel 8, secured to the end of the shaft C, as shown in Figs. 4 and 6. The roller 9 is automatically 110 held in constant contact with the cam-wheel 8 by means of a spiral spring 10, (see Fig. 3,) fitted upon and secured at one end to the stud-axle 5, to engage with its free end the arm 4.

The arm 4, carrying the inking-pad, is so adjusted as that when the roller 9 is in contact with the plain portion or face of the camwheel 8 the pad shall be withdrawn from the type on the type-wheel by the action of the 120 springs 10 and Y; but so soon as the crank begins its revolution from its normal position at rest the pad will be carried by the action of the cam 12 against the face of the particular type on the wheel G, which, in the move- 125 ment of said wheel produced by a movement of the indicating-pointer to the corresponding figure on the index-scale, has been set for print. The cam 12 not only forces the free arm of the lever 6 outward until the inking- 130 pad 2 is brought into contact with the type, but by its further movement compresses both the spring 10 and the spring Y, so as to cause the pad to bear firmly upon the type with an

115

428,003

elastic pressure and properly ink the same. So soon as the apex of the cam 12 passes the periphery of the roller 9 the spring Y will come into play to promptly withdraw the pad 5 from the type, leaving the latter free to be carried with the wheel G by the movement of the yoke Qandarms H H into proper position for printing above the platen K.

It is evident that a segment of the wheel 10 may be employed instead of the entire wheel G where the type do not cover the entire pe-

riphery of the type-wheel.

The inking-pad 2 may be made detachable from the plate 3 and be secured thereto by 15 means of a slot W in the plate, adapted to embrace the stem of a pin 16, which projects centrally from the under side of the pad and carries a spring-actuated head, which is automatically forced inward against the plate by

20 the stress of its spring.

To prevent positively any movement of the type-wheel about its axis at the moment of imprint a toothed or "star" wheel or circular rack 13 is secured concentrically against the 25 face of the type-wheel opposite its pinion I', and an angular or beveled faced dog 14 (see Fig. 4) is mounted upon an arm 15, in position to engage one of the notches in said wheel or rack as the type-wheel is brought into con-30 tact with the paper. The engagement of the dog with the notch in the star-wheel serves both to carry the type into exact registry with the line of print and to lock it while an impression is being made, so that a blurring of the imprint is absolutely prevented thereby.

The indicating mechanism consists, as is customary, of an index-pointer or hand 23, fixed to the rotating-shaft 22 to oscillate over the face of a segmental scale or dial 24 on the 40 front face of the machine. (See Fig. 1.) The shaft 22, mounted in the lower part of the machine parallel with the crank-shaft B, carries the spur-wheel 21, which is, as above described, connected by the bevel-gear 20 to the 45 transmitting-pinion I, actuating the typewheel G, so that the type on said wheel G corresponding to the particular figure on the dial or index-scale 24, to which the pointer 23 may be turned, shall be brought to line of 50 print. The shaft 22 is likewise geared by means of a train of wheels 25 (see Fig. 9) to the spindle 35 of an indicating disk or wheel 26, bearing figures corresponding with the type on the type-wheel G, and which is 55 mounted in the customary manner to display severally each of said figures at an opening in the upper part of the machine. The inditoothed segment 27, (see Fig. 9,) secured 60 thereon to be engaged by a dog 28 upon the end of an arm 29, projecting from a rocking shaft 30, actuated by a locking-bar 31, which is pivoted at one end to a second arm 32, projecting radially from said shaft, and is

65 slotted at the other to embrace the cam-

shaft C, as shown in Fig. 9. A friction-roller |

9,) mounted upon a stud-pin projecting laterally from said bar 31, is made to engage the periphery of a wheel 34, secured upon the 70 shaft C, and thereby hold the bar in position to carry the dog 28 into engagement with the teeth of the segment 27, so as to lock and prevent any movement whatever of the indicating mechanism or type-wheel while the print-75 ing-crank B' of the machine is in movement or out of its first or normal position. (See Figs. 1 and 8.) When the crank is in this first position, a notch in the periphery of the wheel 34 is brought into register with the 80 friction-roller, and as the roller enters the notch the locking-bar 31 is allowed to drop back far enough to carry the dog 28 out of its engagement with the toothed segment 27, and thereby permit of the rotation of the shaft 22 85 and a movement of the indicating and typesetting mechanisms.

The machine is mounted upon a suitable base 35, (shown only in Figs. 1, 7, 8, and 9,) which is made to project at the front and is 90 adapted to serve as a cash-receptacle. The projecting portion of the base 35 is closed by a sliding lid 36, as shown in Figs. 7 and 8, or the base may otherwise be fitted with a drawer or till made to slide into and out of it 95 in substantially the same manner as the lid

36, and as an equivalent device.

The lid 36 is drawn automatically inward to open the cash-receptacle, as indicated by the arrow in Fig. 8, by means of a coiled too spring 37, encircling a rotating shaft 38, mounted in the rear portion of the base and upon which is fitted a pulley 39, about which is carried a band 40, secured thereto at one end and whose opposite end is made fast to 105 the lid 36. The coiled spring 37 is made fast at one end to the casing of the base and at the other to the shaft, and is wound up by the rotation of the pulley 39 produced by the unwinding of the band 40 as the lid 36 is 110 drawn outward to close the opening in the eash-receptacle. (See Figs. 8 and 9). When the lid has been thus drawn out, it is held fast against the stress of the spring and prevented from flying open by means of an automatic 115 eatch, consisting of a vertically-sliding plate or latch 42, (see Figs. 8 and 9,) mounted to move freely in ways formed against the inner face of the front plate  $\Lambda'$  of the casing of the machine, and to drop by its gravity into 120. engagement with a lug 43, upon the rear end of the lid. This catch-plate 42 serves as an automatic lock for the lid to prevent it from being opened except by a release of the plate cating-shaft  $\bar{2}2$  is furthermore fitted with a | therefrom. This release is effected solely by 125 means of an oscillating lever 44, (see Fig. 9,) pivoted upon a stud projecting inward from the front plate of the easing and so bent and extended as that one end shall engage a slot in the catch-plate 42 and its opposite end pro- 130 ject immediately beneath the free end of the printing-lever M, to contact therewith and be depressed thereby when said printing-lever 33, (see Figs. 7 and 8 and dotted lines, Fig. 1 is forced down, in manner as hereinbefore described, by the revolution of the crank B', to operate the printing mechanism. When the catch-lever 44 is oscillated by the movement of the printing-lever M, the catch-plate 42 will be thereby lifted from the lug 43 sufficiently to allow the lid 36 to move back under the stress of its spring and thus open the cash-receptacle.

The lower end of the catch 42 and the upper face of the lug 43 are oppositely inclined, so that when the lid is drawn outwardly the catch will be automatically lifted by the lug until it has passed beyond its rear end, when, at the moment the movement of the lid is completed, it will drop in the rear of the lug

to engage it and lock the lid.

When the lid is carried inwardly to open the cash-receptacle, the rotation of the shaft 38, which actuates it, is made to enforce the 20 lock upon the indicating mechanism produced and maintained by means of the dog 28, in manner as described, by means of a springactuated pin 45, beveled at its upper end and mounted to play vertically over a cam 46, 25 fixed upon the shaft 38, and to extend up through the top of the base into engagement with the beveled end of a sliding spring-actuated plate 47, whose opposite end is made to extend in position to pass under the end 30 of an arm 49, connected with the end of the arm 32 at its joint with the locking-bar 31, so as to depend vertically under said joint. These several parts are so disposed as that when the shaft 38 is by the stress of its spring 35 revolved to draw inward the lid 36 the cam 46, bearing against the pin 45, will force it up against the stress of its spring into engagement with the sliding plate 47, so as to slide the latter forward against the stress of 40 its spring until, as the inward movement of the lid 36 is completed, its free end will pass under the end of the vertical arm 49 and thereby prevent the arm from dropping. The arm 49 will be lifted sufficiently to permit the 45 plate 47 to pass under it only at such times as the dog 28 is in engagement with the segment 27 to lock it. So long as the plate 47 remains under said arm 49, any movement of the bar 31 or of the dog 28 is prevented, and 50 hence after the indicating mechanism has thus been locked it must remain locked until the lid 36 of the cash-receptacle is closed, the retraction of the sliding plate 47 and of its operative pin 45 being automatically effected 55 by means of their respective springs so soon as the pin is freed from the cam 46 by the revolution of the shaft 38 as the lid is closed.

In the operation of the machine the operator upon the receipt of a cash payment will, by turning the pointer 23 to the figure on the index-scale 24 corresponding with the amount received, cause the same to be exhibited at the front and rear reading-openings on the top of the machine by means of the indicating-disk 26, set by said movement, and will simultaneously cause the type-wheel G to revolve, so as to bring the type thereon corresponding to the indication of the logical manner.

sponding with said amount into position to be inked by the pad 2. After the amount paid in has thus been indicated and set for print, a sin-70 gle revolution of the printing-crank B', producing a rotation of the cam-shaft C, will at the outset lock the indicating mechanism by carrying the friction-roller 33 on the locking-bar 31 out of the peripheral notch on the wheel 75 34, so as to move said bar, and this lock upon the indicating mechanism will be maintained until the crank has completed its full revolution. The first movement of the crank will also carry the inking-pad momentarily with 85 an elastic pressure against the particular type on the type-wheel set for print, as described, and will then allow it to spring back clear of the wheel. The continued revolution of the crank will next cause the type-wheel G to 85 swing upon its radial arms II H toward the strip of paper brought to line of print on the table J, and will simultaneously force the platen K up under the paper to bear it toward the type-wheel. The type and the 90 platen will thus be brought from opposite directions to bear with a firm, positive pressure upon the paper, so as to produce an imprint of the type thereon, the elasticity of the face or body of the platen serving to insure the 95 accuracy of contact, and the degree of pressure being adjusted by means of the set-screw L'. As the type is thus brought to bear upon the paper, the engagement of the dog 14 with the proximate notch in the star-wheel 13 locks 100 the type-wheel and prevents any lateral movement of the type, so that there can be no blurring of the impression therefrom. After the impression has been produced the movements of the cam S and wrist-pin O allow the type- 105 wheel and the platen to move back from the paper, this outward movement being automatically produced by the action of the springs P and K' in manner as described. As the platen is carried up against the type, the lock- 110 ing-catch 42 is lifted by the same movement, so as to allow the cash-lid to open and uncover the cash-receptacle. Just as the printing-crank B' completes its revolution the notch in the disk 34 will allow the locking-bar 115 31 to move back under the influence of its own weight, combined with that of the arm 49 suspended therefrom, so as to disengage the dog 28 from the toothed segment 27, and thereby unlock the indicating mechanism 120 which is otherwise securely locked by said dog during the entire revolution of the crank. The locking-bar 31 is not, however, permitted to drop back, even when released from the disk 34, so long as the lid 36 of the cash-re- 125 ceptacle is open, but is itself locked by reason of the engagement of the sliding plate 47 with the lower end of the arm 49, said engagement being produced by the opening of the lid in manner as described; hence the indicating 130 mechanism remains positively locked, not only when the crank is making its revolution, but also so long as the cash-receptacle remains

428,003

I claim as my invention—

1. The combination of the type-wheel revolving upon a swinging axle, a yoke pivoted to said axle, a rotating shaft fitted with a cam to bear upon said yoke, and a printing-platen with which the periphery of the type-wheel is brought into contact, substantially in the manner and for the purpose herein set forth.

2. The combination of the type-wheel revolving upon a swinging axle, the cam, the printing-platen toward which the periphery of the type-wheel is carried by the action of said cam, and devices for moving the platen to and from the wheel, substantially in the manner and for the purpose herein set forth.

3. The combination of the type-wheel revolving upon a swinging axle, the yoke pivoted to said axle, the rotating shaft having a cam bearing upon said yoke, a movable printing-platen toward which the periphery of the type-wheel is carried by the action of said cam, a rocking lever actuating the platen to move it toward the type-wheel, and means, substantially as described, for coupling the lever to the shaft, all substantially in the manner and for the purpose herein set forth.

4. The combination of the type-wheel revolving upon a swinging axle, an opposed printing-platen, a yoke pivoted to said axle, 30 a rotating shaft having a cam bearing upon said yoke to move the wheel toward the platen, an inking-pad swinging into contact with the periphery of the type-wheel, a spring compressed by said movement of the pad, a cam-35 wheel upon the rotating shaft, and mechanism, substantially as described, interposed between the pad and cam-wheel, whereby the pad is carried positively against the type on the wheel and automatically withdrawn before 40 the wheel is moved by the cam bearing on its yoke, substantially in the manner and for the purpose herein set forth.

5. The combination, with the type-wheel and pad-carrying lever arranged opposite the periphery of said wheel, of a pad carried by the lever and laterally detachable therefrom,

substantially as set forth.

6. The combination, with a type-wheel revolving upon a swinging axle, of a concentric rack or toothed wheel having notches corresponding in number to the types and united to the type-wheel, and a fixed dog, and appliances whereby the latter is caused to engage the interdental notches of said rack or wheel as the type-wheel is swung into position for imprint, substantially in the manner and for the purpose herein set forth.

7. The combination, in a cash-indicating and check-printing machine, of the revolving pointer, the toothed segment mounted upon the spindle of the pointer to move with it, an oscillating dog mounted to engage said segment, a transmitting-pinion in gear with said spindle, a radial arm swinging upon the axis of said transmitting-pinion, a type-wheel pivoted upon said arm to gear with and swing about said pinion, a spring-actuated yoke

pivoted on the axle of the type-wheel, a cam upon a rotating shaft bearing upon said yoke against the stress of its spring, and the mech-70 anism, substantially as described, for coupling the oscillating dog mediately with the rotating shaft, whereby the dog is made to engage and lock the segment and pointer during the rotation of the shaft, substantially in 75 the manner and for the purpose herein set forth.

8. The combination, with the cash-receptacle and printing mechanism in a cash and check machine, of the spring-actuated self-80 opening cash-lid, the lock-catch engaging the lid when closed to confine it, the lever engaging said catch, the crank-shaft by which the printing mechanism is operated, and the means, substantially as described, whereby 85 the lock-lever is operated by the revolution of the crank-shaft, substantially in the manner and for the purpose herein set forth.

9. The combination, substantially as set forth, with the cash-receptacle, the printing 90 mechanism, and the indicating mechanism in a cash and check machine, of the springactuated self-opening cash-lid, the drivingshaft for the printing mechanism, the independent oscillating shaft connected with the 95 indicating mechanism, the toothed segment. upon the oscillating indicating-shaft, a pivoted dog engaging said segment, the connection between the dog and driving-shaft for enforcing the engagement of the dog and seg- 100 ment during the revolution of the shaft, the sliding lock-plate holding the dog when in its operative position, and the connection between the cash-lid and sliding lock-plate, whereby the plate is withdrawn when the lid 105 is closed.

10. The combination, with the indicating mechanism of a register and with a receptacle and the lid of the receptacle, of a lock, as an arm 29, for said indicating mechanism, and connections between the lid and lock whereby the lock is held in place until the lid is closed, substantially in the manner and for the purpose herein set forth.

11. The combination, with the indicating 115 mechanism of a cash and check machine, of a lid covering the cash-receptacle, a spring-actuated shaft connected with said lid, and a locking device, as an arm 29, for the indicating mechanism, and devices actuated by said 120 shaft and arranged to release the lock by the rotation of the shaft to close the lid, substantially in the manner herein set forth.

12. The combination, with the cash-securing, indicating, and printing devices in a cash 125 and check machine, of the spring-actuated self-opening cash-lid, the automatic lock confining the same when closed, the connections between the lock and the printing-shaft to release the lock by the rotation of the shaft, 130 the indicating-shaft, the dog holding said indicating-shaft, the connections between the dog and printing-shaft for enforcing the hold of the dog upon the indicating-shaft during

the revolution of the printing-shaft, the lock holding said dog, and the connections between said lock and the cash-lid, whereby the lock is released when the lid is closed, all substan-5 tially in the manner and for the purpose

herein set forth.

13. The combination of the registering mechanism, locking device, as an arm 29, therefor, cash-lid 36, the rotating shaft 38, and 10 connections whereby the rotation of the shaft operates the locking device, the band 40, coupling said shaft and lid, the coiled spring 37, encircling said shaft to actuate it and wound by the movement of the lid in closing, 15 and the automatic lock 42, engaging the closed lid, substantially in the manner and for the purpose herein set forth.

14. The combination, with the cash-receptacle and indicating-pointer in a cash secur-20 ing and indicating machine, of the cash-lid 36, the rotating spring-actuated shaft 38, .coupled to said lid to open it, the toothed segment 27, coupled to the indicating-pointer, the self-releasing pivoted dog 28, engaging 25 said segment, the arm 49, coupled to said dog, the slide 47, engaging said arm, the drivingpin 45, actuating said slide, and the cam 46 on the shaft 38, actuating the pin, whereby the hold of the dog upon the segment is en-30 forced when the cash-lid is open, substantially

in the manner and for the purpose herein set forth.

15. The combination of the indicatingpointer 23, the toothed segment 27, mounted upon the spindle 22 of said pointer, the oscil-35 lating dog 28, mounted to engage said segment, the transmitting-pinion I, geared to said spindle, the radial arm H, swinging upon the axis of said pinion, the type-wheel G, pivoted upon said arm to gear with and swing about 40 said pinion, the opposed printing-platen K, the spring-actuated yoke Q, pivoted to the axle of the type-wheel, the rotating printingshaft C, the cam upon said shaft bearing down said yoke against the stress of its spring, 45 and the mechanism, substantially as described, coupling the oscillating dog 28 mediately with said printing-shaft, whereby the dog is made to hold the indicating mechanism during the revolution of the printing-shaft, 50 substantially in the manner and for the purpose herein set forth.

In testimony whereof I have signed my name to this specification in the presence of

two subscribing witnesses.

WILLIAM KOCH.

Witnesses:

A. N. Jesbera, E. M. WATSON.