

No. 883,854.

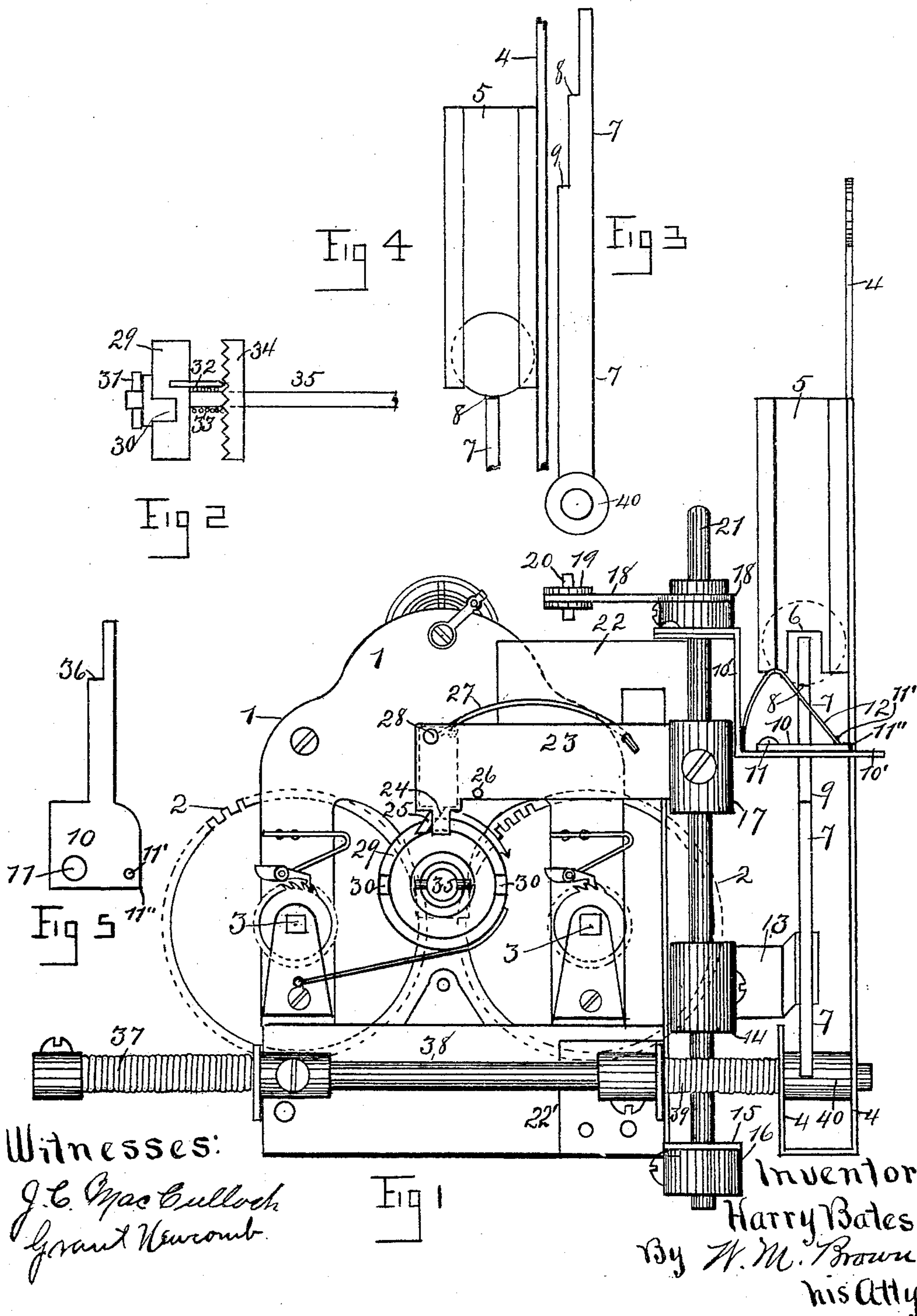
PATENTED APR. 7, 1908.

H. BATES.

TIME CONTROLLED, COIN OPERATED LOCKING DEVICE FOR TYPE WRITER
MACHINES.

APPLICATION FILED MAY 25, 1906.

4 SHEETS—SHEET 1.



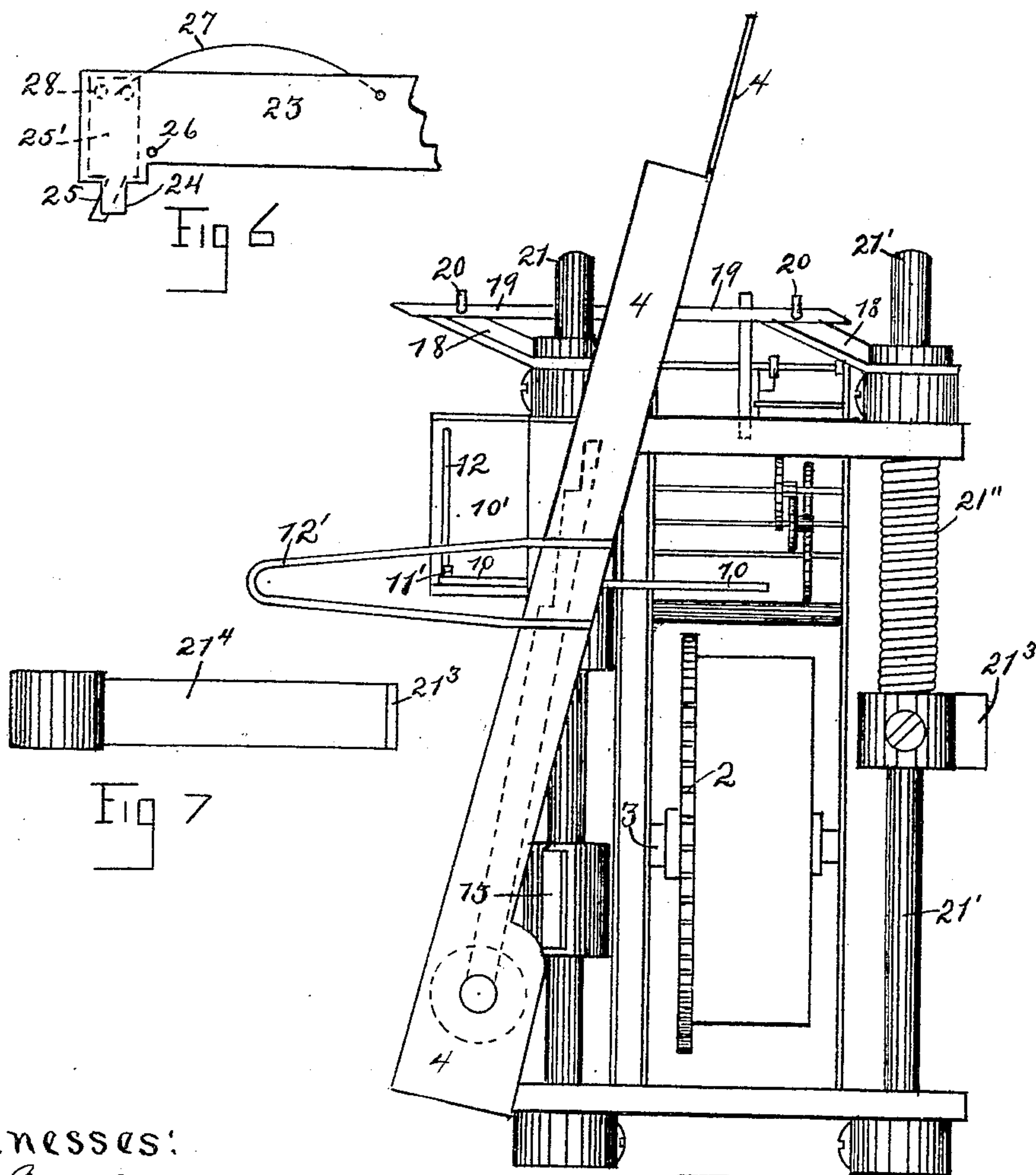
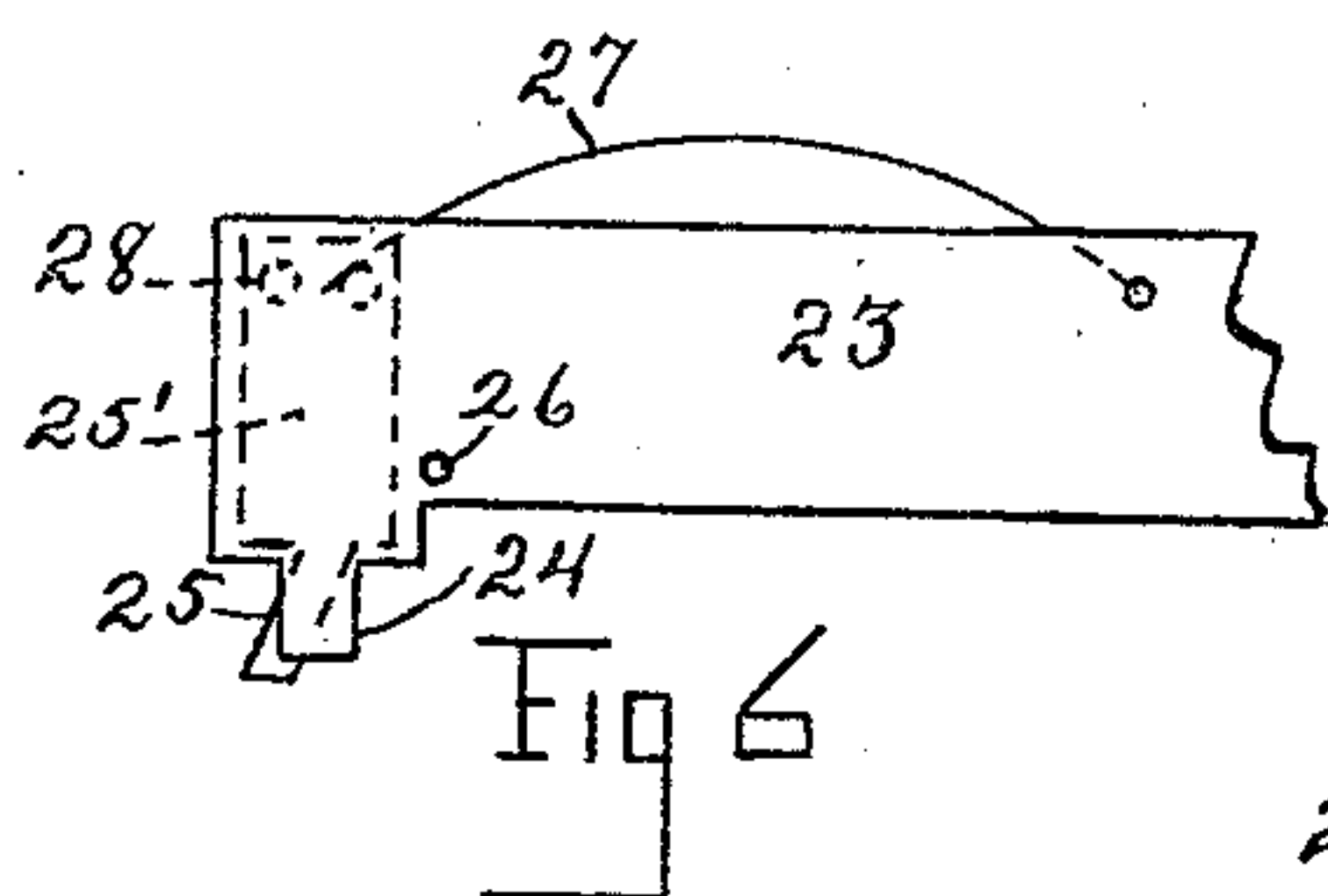
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Witnesses:
J. C. MacCulloch
Grant Newcomb

Fig 8 Inventor:
Harry Bates:
By A. M. Brown
his Atty

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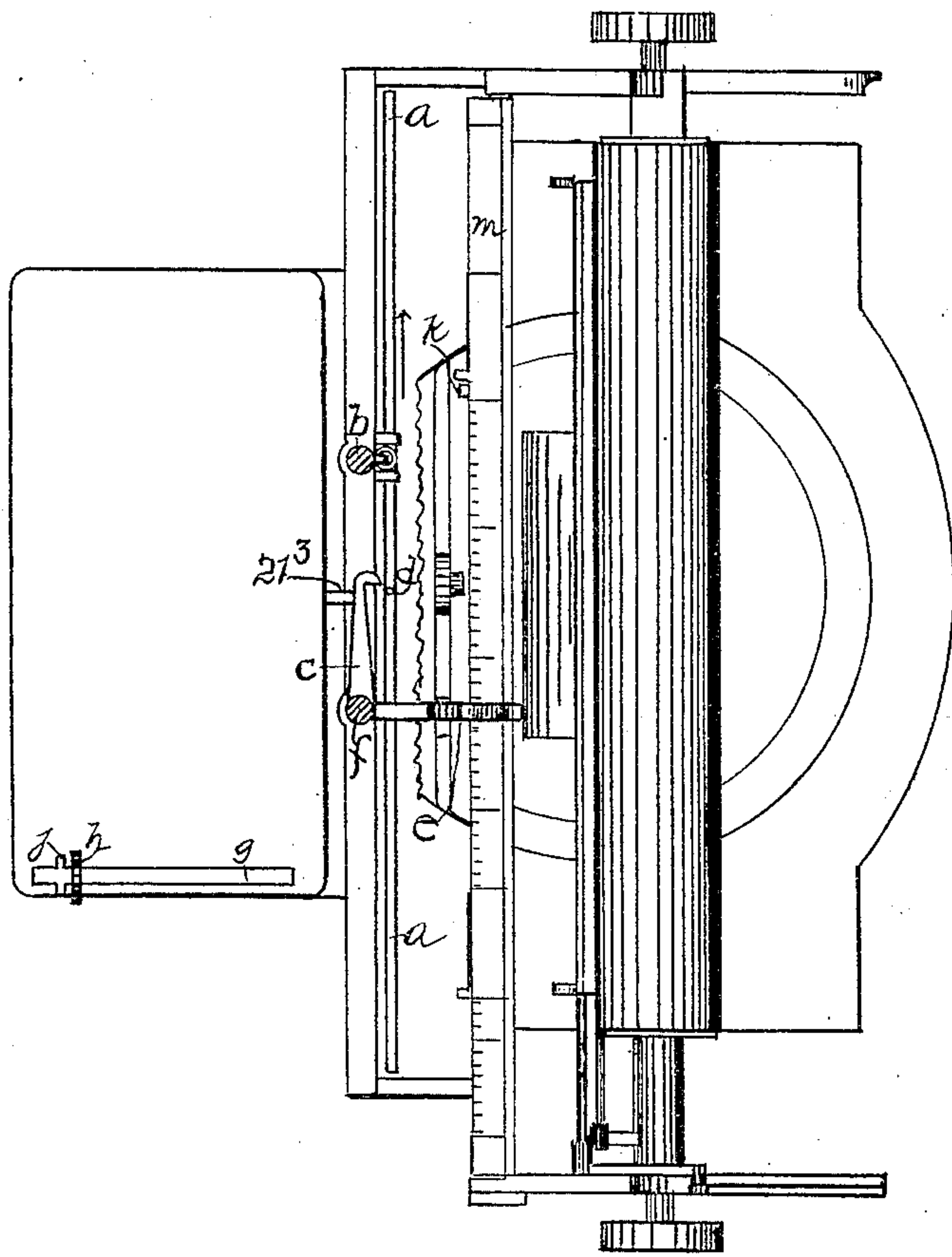


Fig 7

Witnesses:

J. C. Mac Culloch
Grant Newcomb

Inventor:

Harry Bates

By A. M. Brown

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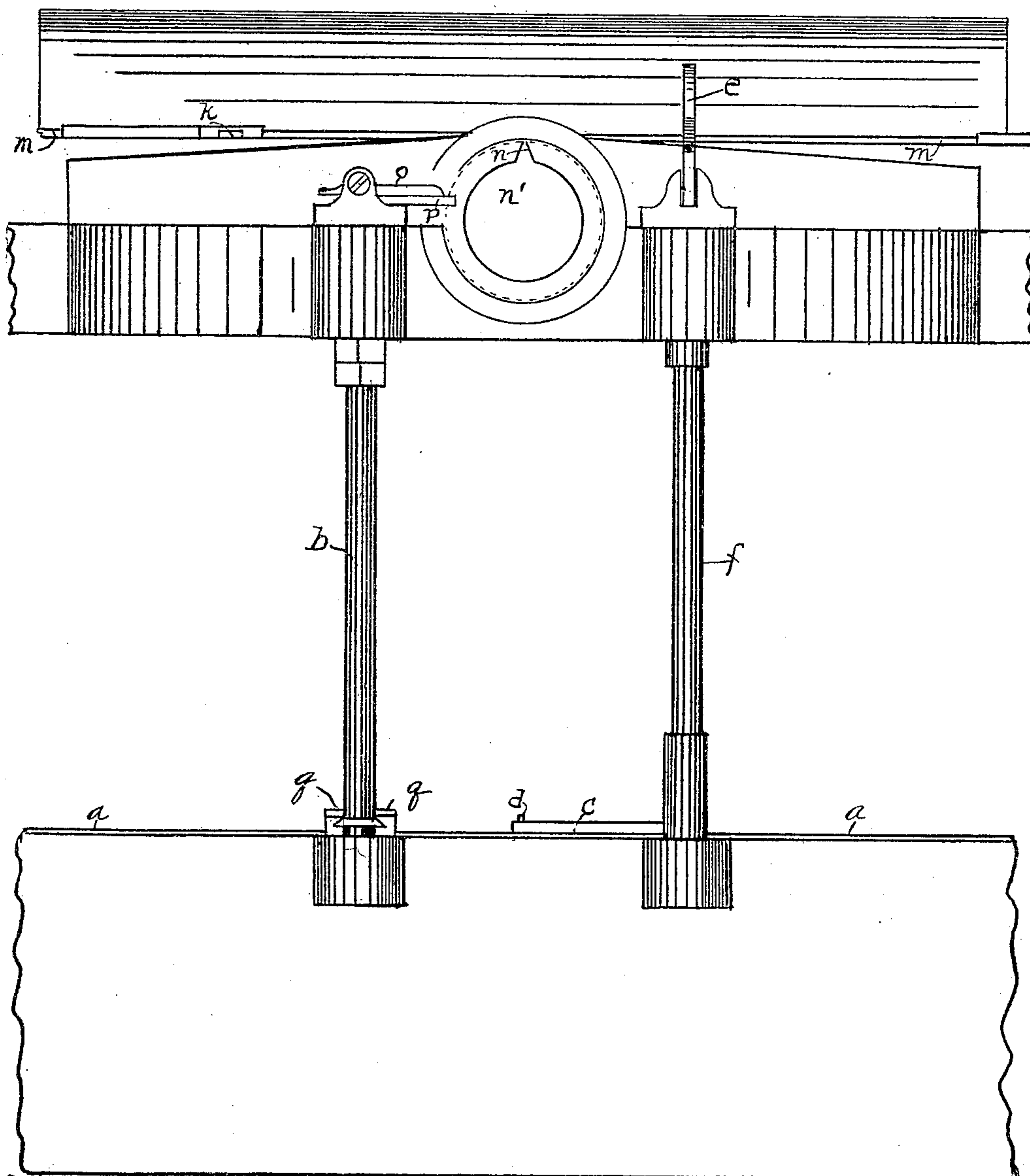
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Fig 10

Inventor:
Harry Bates:
By *H. M. Brown*
his Atty

UNITED STATES PATENT OFFICE.

HARRY BATES, OF MENANDS, NEW YORK.

TIME-CONTROLLED, COIN-OPERATED LOCKING DEVICE FOR TYPE-WRITER MACHINES.

No. 883,854.

Specification of Letters Patent.

Patented April 7, 1908.

Application filed May 25, 1906. Serial No. 318,642.

To all whom it may concern:

Be it known that I, HARRY BATES, a citizen of the United States, residing at Menands, in the county of Albany and State of New York, have invented a new and useful Time-Controlled, Coin-Operated Locking Device for Type-Writer Machines, of which the following is a specification, reference being had to the accompanying drawings, forming part thereof.

The object of my invention is to provide a means whereby a typewriting machine may be operated at predetermined times only by unlocking and then locking its mechanism by inserting or making use of a cash payment of any certain predetermined sum of money inserted into the device with the purpose that such typewriting machine may be placed in a hotel or any public or other place thereby enabling anyone to obtain the use of the machine for practice or for practical writing purposes by depositing the predetermined sum of money, say ten cents, in the attachment for the use of the same for say, one-half hour, when the machine will lock and it will be impossible to obtain use of it until another ten cents is deposited when the locking device will unlock and remain so unlocked for the space of half an hour or the predetermined space of time at the end of which time the typewriting machine will lock fast.

One way in which I accomplish this end is shown in the drawings hereto annexed and which form a part of this specification;

Figure 1 shows the front face of the clock mechanism as it is attached to the typewriting machine in side elevation; Fig. 2 an edge view of two of the operating wheels attached or hung on the minute hand shaft of the clockworks; Fig. 3 a side elevation of one of the levers; Fig. 4 a face view of the coin conduit with a portion of the lever seen in Fig. 3; Fig. 5 a plan view of the trip device; Fig. 6 a rear side elevation of a portion of locking mechanism; Fig. 7 a side elevation of the locking finger; Fig. 8 an end elevation of clockwork; Fig. 9 a top plan view of a typewriting machine with portion broken away and my mechanism in its box operatively attached to the typewriting machine and Fig. 10 the rear view of a typewriting machine showing some of the moving parts used in connection with my clock mechanism.

The clockwork —1— as shown is an ordinary eight day clock to be found on the general market. It has two driving spring ac-

tuated wheels —2—2—. To the shaft of the minute hand arbor —35— I firmly fix the toothed wheel —34— and on the same shaft I loosely set the wheel —29— having two slots —30—30— through its rim and the finger or indent —32— I firmly attach to wheel —29— and bring its free end to a knife edge. Between these two wheels I place a spring —33— which acts to keep the wheels separate by pushing wheel —29— as far toward the end of shaft as it will go and when no pressure is exerted against the outer rim of wheel —29— spring —33— prevents the knife edge of finger or indent —32— from engaging with the teeth on wheel —34— and the clockworks will run and revolve wheel —34— only, which it is designed to do, while the typewriting machine is not in use, after it has come to rest at the end of a specified time, and in this mechanism predetermined as thirty minutes or half an hour. In order to have the motions of wheel —29— accomplish this locking and unlocking, to one side of the clock frame I attach the brackets —22— and —22'— and —15— and —10'— and by means of these brackets set up the vertical shafts —21— and —21'— (see Figs. 1 and 8) which shafts have a small rotary movement in the brackets by means of spring —21''— and are connected by the frame composed of the arms —18—18—, their outer ends being pivoted to the cross bar —19— by the pins —20—20— and has slight motion laterally by means of the pivots. On the shaft —21— is firmly hung the arm —23— (see Fig. 1) that has a depending short leg —24— which lies just in front of wheel —29— ready to slip into either of the slots —30— which may present themselves to it.

In order that the leg —24— shall leave the slots —30— absolutely and not reënter the slot again instantly, I pivot a plate —25'— (see Fig. 6) by the pivot —28— to rear side of arm —23— so it will swing on that pivot and provide it with a slanting and forward protruding leg —25— and assist the protruding leg to assume a forward position as seen in Fig. 6 by the light spring —27— and prevent the plate from a too far backward swing by the stop —26—. A retreating motion from and an approaching motion toward wheel —29— is given arm —23— and its attachment through a slight rotary movement given to shaft —21— through the arms —18—18— and cross bar —19— by

the spring —21''— on shaft —21'— by means of the coin conduit —5— and lever —7—, the coin conduit —5— being attached to the lever —4— as seen, and lever —4— fastened to the revoluble rod —38— a rearward motion given to lever —4— will cause a revolution of rod —38— against the spring of coiled springs —37— and —39— and on releasing lever —4— it will spring forward with considerable force and take its normal position without disturbing lever —7—. Lever —7— is seen in Fig. 3 and has notches —8— and —9— and is firmly attached to rotating sleeve —40— which rotates on rod —38— freely and without interference with lever —4— being also, spring actuated.

At —10— (see Fig. 5) is a plate pivoted to the floor of bracket —10'— and has a projection —11'— or pin against which spring —12— presses and swings the tongue with its notch —36— to the left and this is done so that when lever —7— is pushed back along the notched side of the tongue the notch will engage with the lever —7— and hold it fast until lever —4— with the coin conduit and the coin fly back into their normal position and in doing which, lever —4— strikes against the corner projection 11'' of plate —10— and crowds notch —36— out of engagement with lever —7— when lever —7— flies to its normal position striking the coin and knocking it free into a receptacle for it. While levers —4— and —7— were being operated as above described, lever —7— also came in contact with lever —13— and pushed it rearward giving a rotary motion to shaft —21— and to shaft —21'— against the resilience of spring —21''— which revoluble movement swung arm —23— away from wheel —29— and its leg —24— out of the slot —30— together with the incline and spring actuated leg —25— which latter leg swung forward by pressure of spring —27— and laid beyond the slot and against the outer rim of the wheel and would not allow leg —24— to again enter the slot until one half an hour had been expended and spring actuated leg —25— had made the circuit and had itself entered one of the slots —30— and thus acted as a guide to leg —24—. While the above described movement was taking place, the lever —21⁴— had the same movement as arm —23—, moving away and from the clock-works in unison, that is, while leg —24— on arm —23— was moving out of the slot —30— and was kept from entering the slots for one half hour, or until the next slot presented itself to the leg in enterable position, the lever —21⁴— with its engaging end —21³— was drawn away from hook —c— (see Fig. 9) and that hook being spring actuated released itself from pin —d— and the rod —a— was free again to make its necessary back and forth motion or endwise motion necessary to allow the carriage to make

its steplike motion to have the necessary spaces between the printed words on the paper, but when the engaging end —21³— of lever —21⁴— is moved outward by leg —24— on arm —23— entering slot —30— in wheel —29— that slot is just deep enough to make the movement of leg —24— and arm —23— enough to thrust engaging end —21³— of lever —21⁴— into contact with hook —c— and force that hook to engage with pin —d— and prevent the typewriter from working until another coin was inserted and the levers operated.

The operation is as follows: Viewing Fig. 1 the position of legs —24— and —25— on the rim of wheel —29— shows that the typewriter has been used or usable for about fifteen minutes, as about one-half of the distance on the rim has been traveled over by the aforesaid legs which indicates about that length of time. Starting with the clock works in the position indicated in Fig. 1, we will have to wait about fifteen minutes until the left hand slot —30— comes to the legs —24— and —25— so that they can enter that slot. As leg —25— is approached by slot —30— it first catches the extreme end of that leg and pushes it into an upright position, or practically such a position, behind the leg —24—, when both legs slip into the slot, the spring —33— (see Fig. 2) pushes wheel —29— outward on shaft —35— releasing the knife edge —32— from engagement with the teeth on wheel —34— and the movement of the arm —23— as the legs —24— and —25— entered the slot —30— caused by the spring —21''—, pushed the contact end —21³— of lever —21⁴— against locking lever —f— (see Fig. 9) and caused it to lock the typewriter fast and unusable until a coin is inserted in the coin chute —5—. Therefore the knife edge —32— is out of connection with the teeth on wheel —34— when the legs —24— and —25— are in either of the slots —30— and the wheel —34— continues its rotation with the shaft —35— and the clock continues to run but the typewriter is locked fast, and will remain so until a coin is deposited in the coin chute —5—. When a coin is so deposited it slides down the conduit or chute —5— and comes to rest upon the notch —8— of lever —7— resting in front of the upper end of that lever and covering the opening in the coin chute made for the passage of the upper end of the lever —7—, but when the coin is resting on notch —8— the upper end of the lever —7— cannot pass the opening. The consequence is that when the handle of lever —4— is moved backward it carries with it lever —13— which causes shaft —21— to partly revolve and throw arm —23— forward so that legs —24— and —25— are disengaged from slot —30— and as contact point or end —21³— on arm —21— moves in unison with arm

—23— and the legs —24— and —25— the typewriter is unlocked by the spring actuated lever stop —c— springing back from engagement with the peg —d— on the rod —a— of the typewriter (see Fig. 9). But while the lever —7— was making its rearward movement with coin conduit —5— it moved along the edge of spring-actuated catch —10— until it caught in the notch —36— in that lever. The catch —10— was caused to remain in contact and hold lever —7— for the space of time sufficient to allow lever —4— to spring back coming in contact with the corner —11'— swing that lever out of retaining contact with lever —7— and against the tension of spring —12— into its normal position with lever —4—, when lever 7 returned to normal position, striking the coin from the conduit and allowing it to fall into the receptacle provided. As these movements of the two levers —4— and —7— were taking place the arm —23— and legs —24— and —25— were moved and the legs freed from the slot —30— as follows. The leg —25— being spring actuated and in its normal position standing slantingly ahead of leg —24—, which is a fixed or rigid leg, but which when in the slot —30— was forced to stand practically perpendicular with leg —25—, when the legs were released together from slot —30— and against the side of the wheel —29— and would not allow leg —24— to enter the slot again until the wheel —29— had made one-half a revolution or taken one-half of time during which half hour the typewriter was usable.

—3— shows the winding posts of the clock.

Fig. —10— shows the rear of a typewriting machine on the common market and has been used simply to show my device in operative connection with some typewriting machine the post —b— revolving slightly being spring actuated, as the teeth —n— on escapement wheel —n'— come in contact with the movable rest —o— and —p—, and as it turns part of a revolution it reciprocates —q— in a lateral direction and gives the rod —a— an endwise motion forming the spaces between the letters and words in the printed line. Plate —m— has the step-like motion of rod —a— and in unison with it and moves with the paper carriage during the process of printing and when the catch —k— meets the arm —e— it pushes that arm to the left and as post —f— is partly revoluble it turns post —f— and brings lever —c— in engagement with pin —d— and thus locks the typewriting machine fast at the end of each line of ordinary length. I merely provide therefore a time controlled device that will automatically operate the lock lever —c— at predetermined times which I have predetermined to be one half hour or thirty minutes and it is operated without re-

gard to the time when the carriage reached the end of a line of print.

I do not confine myself in my invention to the type of typewriting machine shown, but claim it broadly when used with any typewriting machine, my object being to provide any typewriting machine with an automatically operating, time-controlled locking device so that by the prepayment of a certain amount of money the typewriting machine will be unlocked and be operated for a predetermined space of time and at the end of the time be automatically locked fast, whatever portion of the typewriting machine may be used as the point at which to lock it, or whatever may be the mechanism adopted to operate the locking device.

Having now described my invention so that those skilled in the art may know how to make and use the same, what I desire to secure by Letters Patent is:

1. The combination of a typewriter mechanism, a lock therefor, and time-controlling mechanism for predetermining the moment of locking of said lock after the same has been unlocked.

2. The combination of a typewriter mechanism, a lock adapted to engage therewith, and time controlling mechanism for predetermining the moment of engagement of the lock with the typewriter mechanism after the lock has been unlocked.

3. The combination of a typewriter mechanism, a lock therefor, means for releasing the lock, and time controlling mechanism whereby the lock is returned to locking position after a predetermined interval.

4. The combination of a typewriter mechanism, a lock adapted to arrest the writing movements thereof, operator-controlled means for releasing the lock, and time controlling mechanism whereby the lock is returned to locking position after a predetermined interval.

5. The combination of a time controlled mechanism, operating means for actuating the same out of normal position, automatic means for returning the same to normal position, a time controlling mechanism, and a rotatable member adapted to be coupled with said time controlling mechanism when the time controlled mechanism is actuated out of normal position and to be uncoupled after a predetermined interval, and while coupled to maintain said time controlled mechanism in actuated position.

6. The combination of a time controlled mechanism, operating means for actuating the same out of normal position, a spring tending to return the mechanism when actuated, a time controlling mechanism, and a rotatable member adapted to be coupled with said time controlling mechanism when the time controlled mechanism is actuated out of normal position and to be uncoupled after

a predetermined interval, and while coupled to maintain said time controlled mechanism in actuated position against the tension of said spring.

5 7. The combination of a time controlled mechanism, operating means for actuating the same out of normal position, automatic means for returning the same to normal position, a continuously running time controlling mechanism, and a rotatable member
10 adapted to be coupled with said time controlling mechanism by said automatic means through the instrumentality of said time controlled mechanism when the latter is actuated out of normal position, and to be uncoupled after a predetermined interval, and
15 while coupled to maintain said time controlled mechanism in actuated position.

8. The combination of a time controlled
20 mechanism, operating means for actuating the same out of normal position, a time controlling mechanism, a rotatable member having a region constructed to maintain said time controlled mechanism in actuated position for a predetermined interval, being
25 adapted to be coupled with said time controlling mechanism but normally uncoupled therefrom, and automatic means for returning the time controlled mechanism to normal
30 position, which operates, when said mechanism is actuated out of normal position, to engage the same with said region, causing said member to couple with the time-controlling mechanism.

35 9. The combination of a time controlled mechanism, operating means for actuating the same out of normal position, a time controlling mechanism, a recessed wheel adapted to be coupled with said time controlling
40 mechanism but normally uncoupled therefrom, said time controlled mechanism being normally in engagement with the recessed portion of the wheel and adapted to be maintained in actuated position by the non-recessed
45 portion when in engagement with the latter, and automatic means for returning the time-controlled mechanism to normal position, which operates, when said mechanism is actuated out of normal position, to
50 engage the same with the non-recessed portion of the wheel, causing the latter to couple with the time-controlling mechanism.

10. The combination of a time controlled
55 mechanism, operating means for actuating the same out of normal position, a time controlling mechanism, a rotatable member having a region constructed to maintain said time controlled mechanism in actuated position for a predetermined interval, being
60 adapted to be coupled with the time controlling mechanism but normally uncoupled therefrom, automatic means for returning

the time-controlled mechanism to normal position, which operates, when said mechanism is actuated out of normal position, to
65 engage the same with said region, causing said member to couple with the time controlling mechanism, and means for automatically uncoupling said member when said region has traveled out from engagement
70 with the time controlled mechanism.

11. The combination of a time controlled mechanism, operating means for actuating the same out of normal position, a time controlling mechanism including a shaft, a recessed wheel loose on said shaft, normally
75 disengaged clutch members between said wheel and said shaft, said time controlled mechanism being normally in engagement with the recessed portion of the wheel and
80 adapted to be maintained in actuated position by the non-recessed portion when in engagement with the latter, automatic means for returning the time-controlled mechanism to normal position, which operates, when
85 said mechanism is actuated out of normal position to engage the same with the non-recessed portion of the wheel, causing said clutch members to engage, and a spring operating to disengage the clutch members
90 when the non-recessed portion of the wheel travels out from engagement with the time controlled mechanism.

12. The combination of a time controlled mechanism, operating means for actuating
95 the same out of normal position, a time controlling mechanism, a recessed wheel adapted to be coupled with said controlling mechanism but normally uncoupled therefrom, said time controlled mechanism being normally
100 in engagement with the recessed portion of the wheel and adapted to be maintained in actuated position by the non-recessed portion thereof when in engagement with the latter, and having a spring-actuated tooth
105 adapted when the time controlled mechanism is released from said recessed portion to advance over the non-recessed portion to prevent immediate reengagement of the time controlled mechanism with said recessed
110 portion, and automatic means for returning the time-controlled mechanism to normal position, which operates, when said mechanism is actuated out of normal position, to engage the same with the non-recessed portion
115 of the wheel, causing the wheel to couple with the time controlling mechanism.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HARRY BATES.

Witnesses:

W. M. BROWN,
A. W. STREET.