

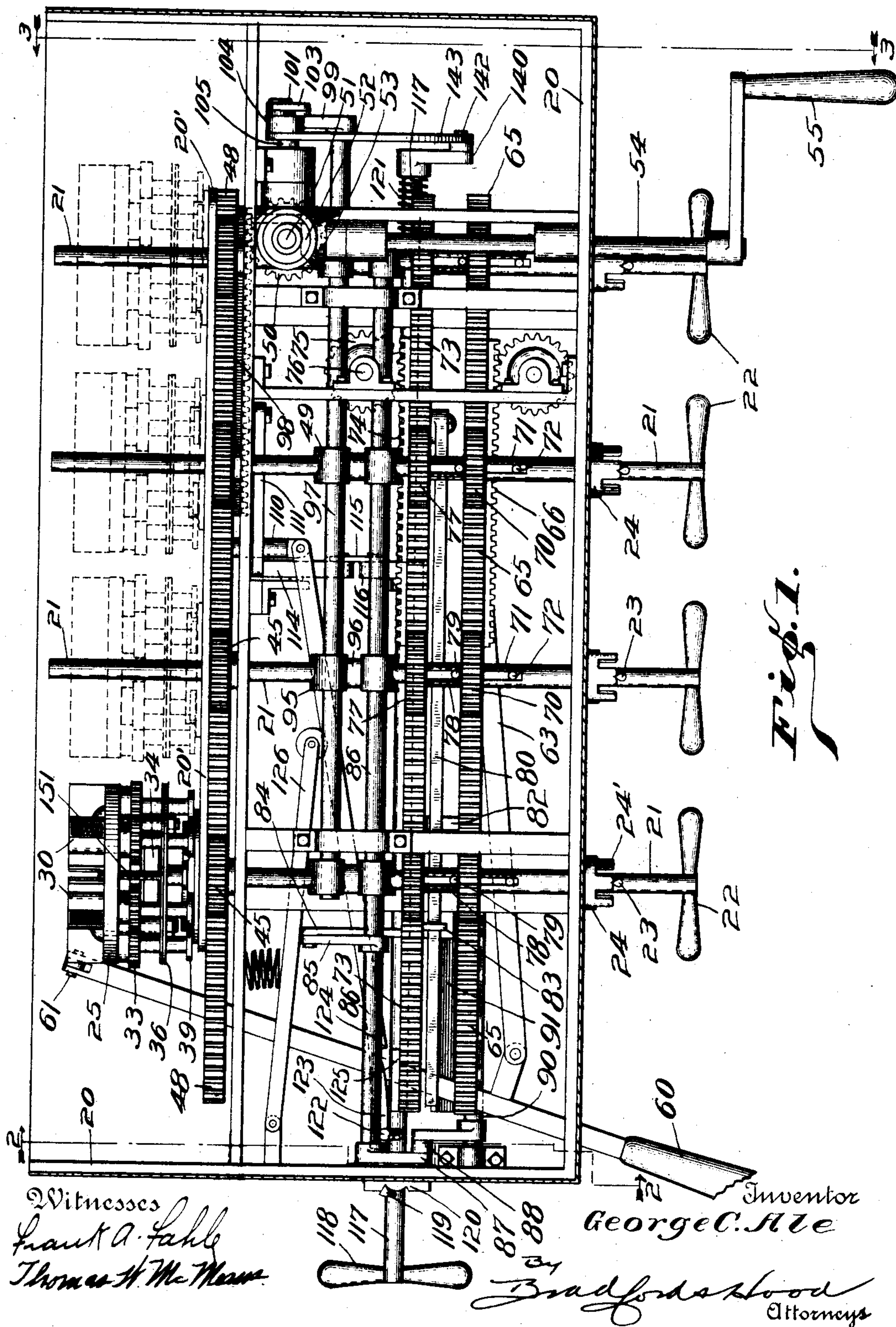
No. 868,062.

PATENTED OCT. 15, 1907.

G. C. ALE.
VOTING MACHINE.

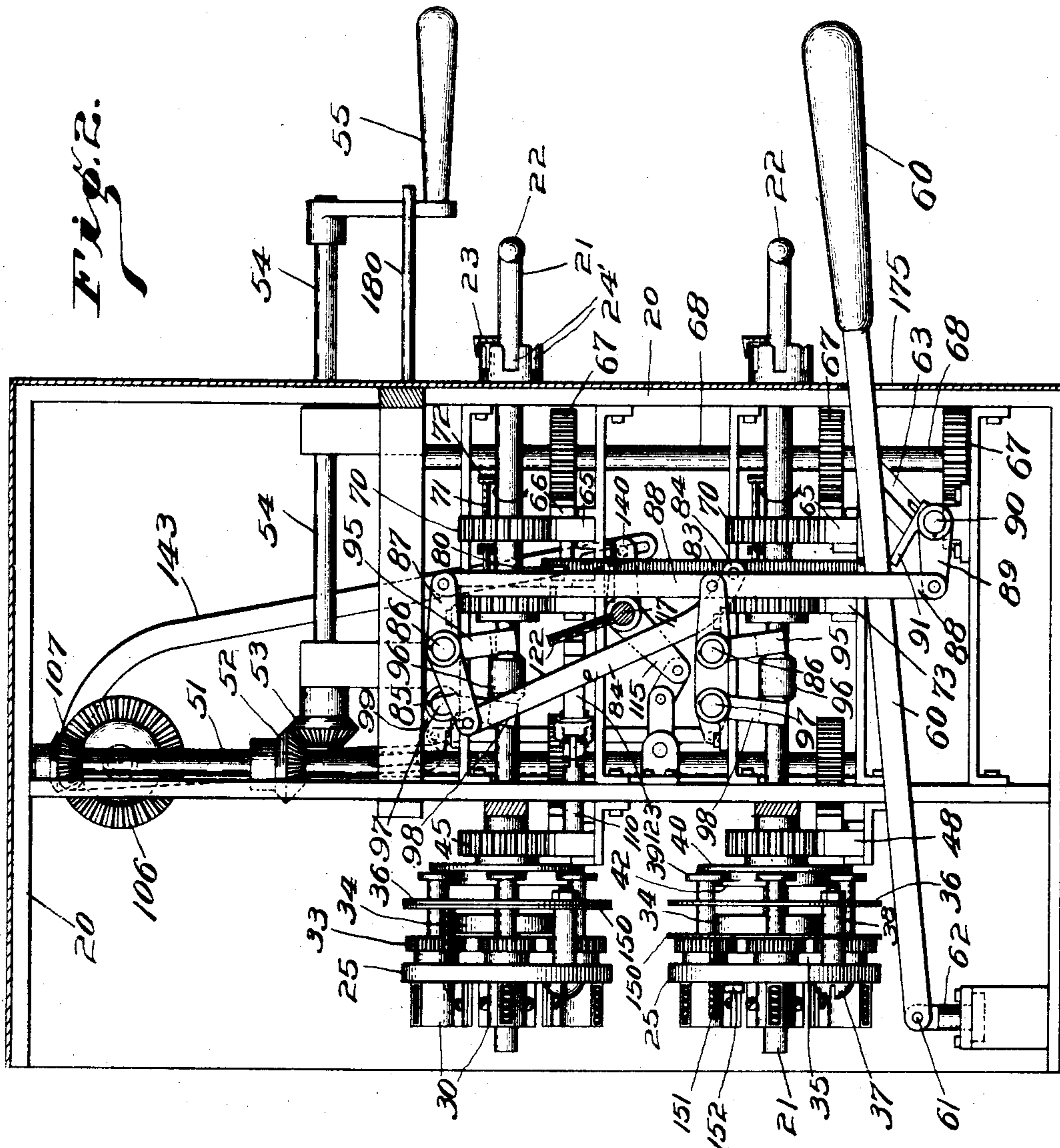
APPLICATION FILED MAR. 26, 1907.

6. SHEETS—SHEET 1.



G. C. ALE.
VOTING MACHINE.
APPLICATION FILED MAR. 25, 1907.

6 SHEETS—SHEET 2.



Witnesses
Frank A. Fable
Thomas H. McMeans

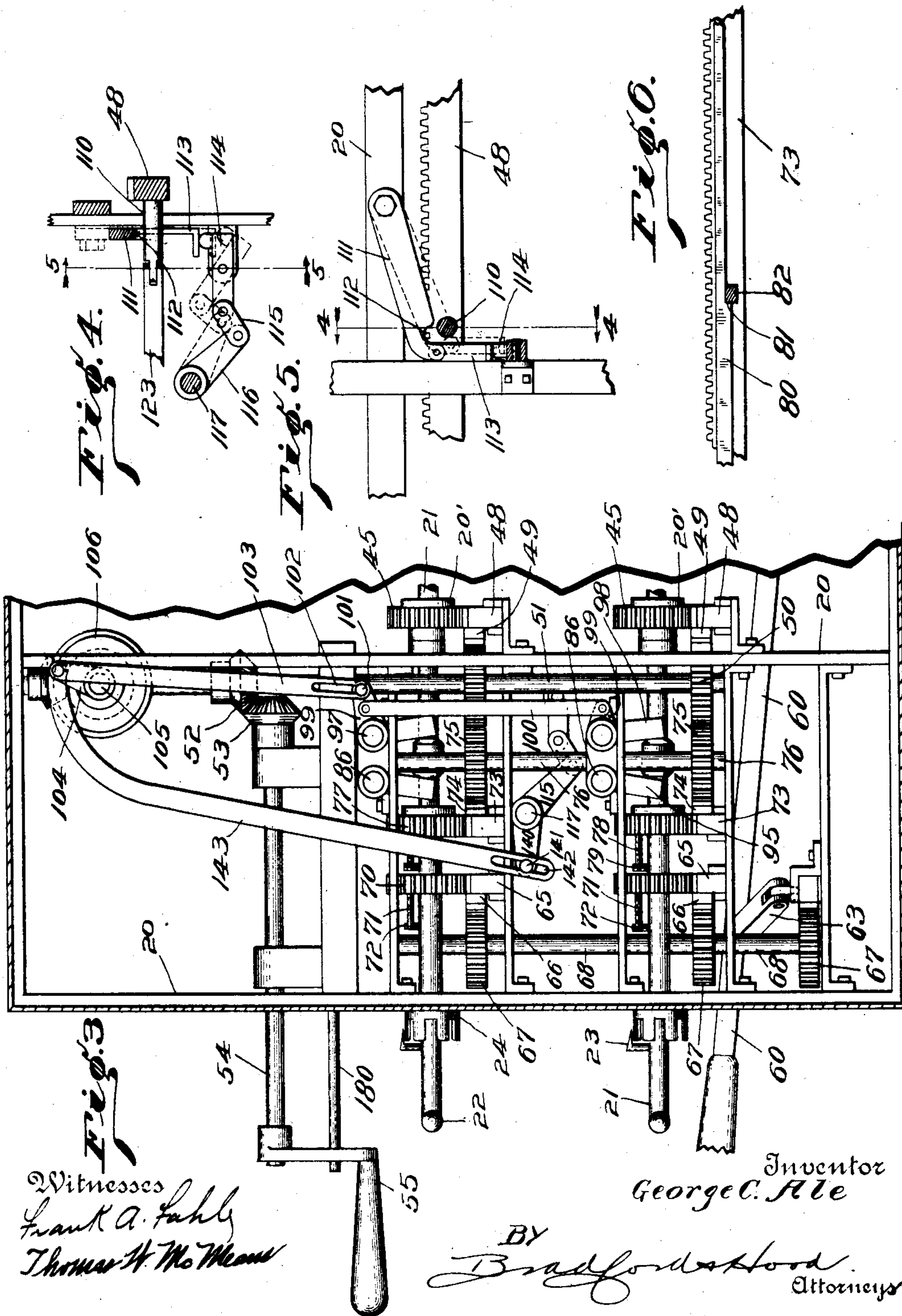
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6 SHEETS—SHEET 3.



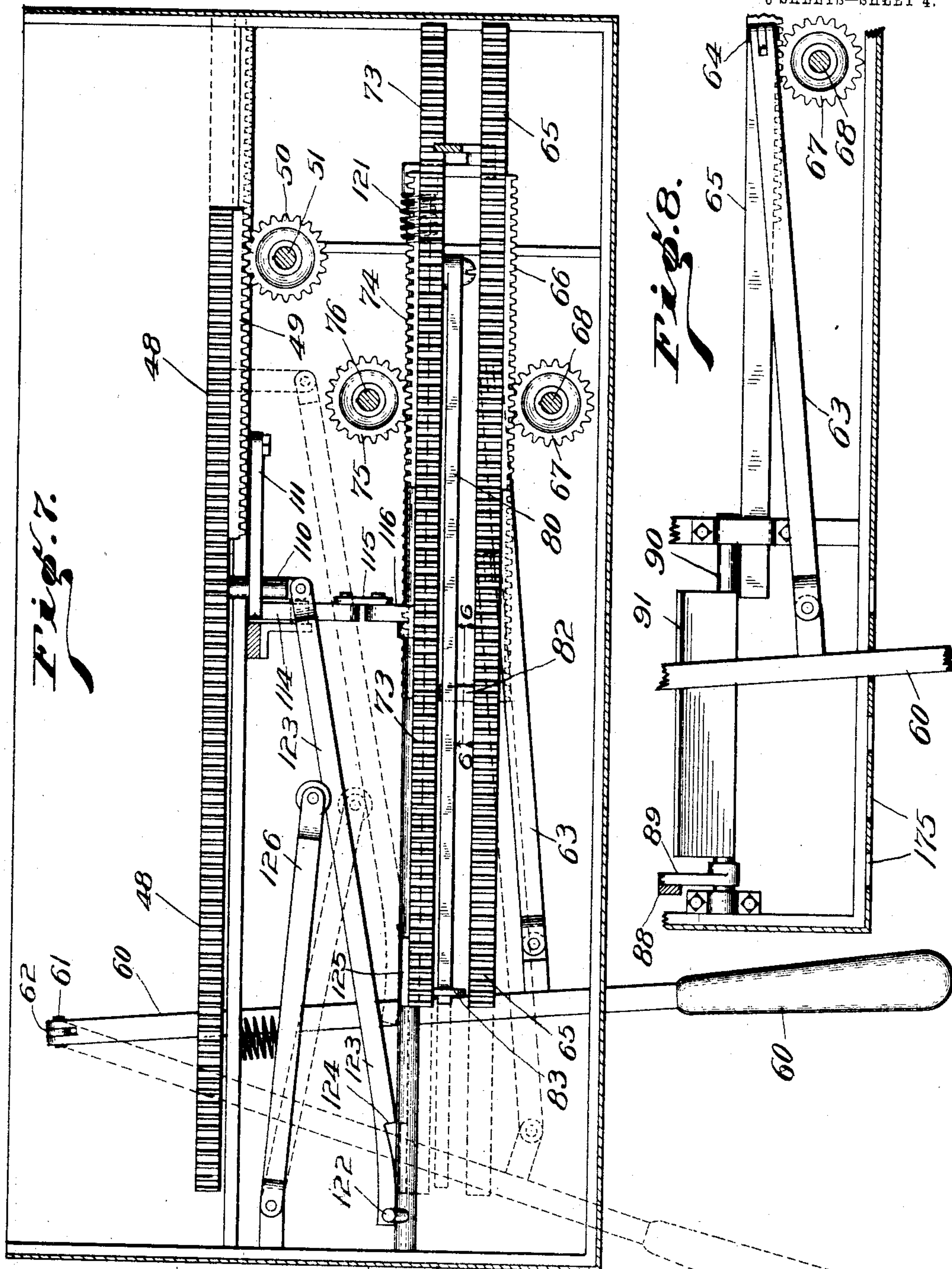
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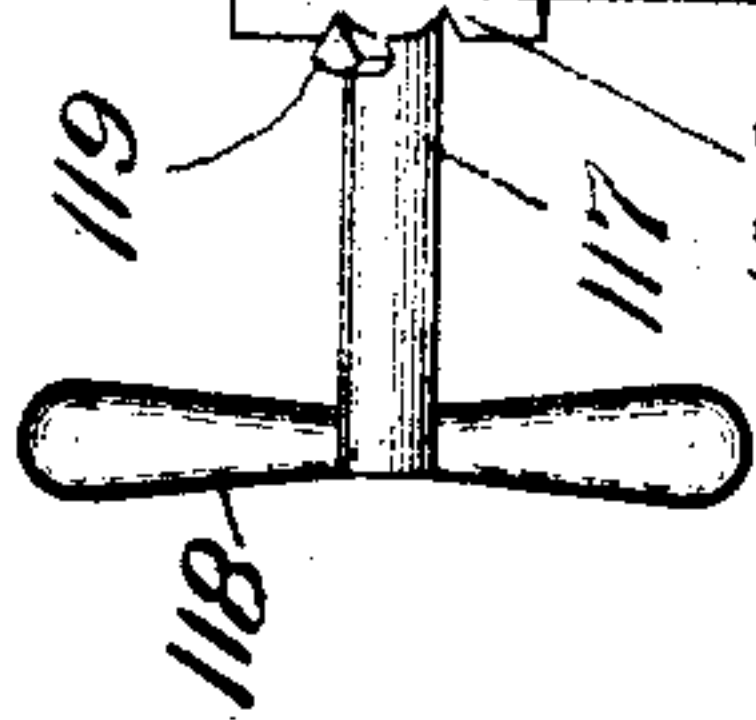
6 SHEETS—SHEET 4.



Witnesses
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Thomas W. McMease

Inventor
George C. Ale

BY Bradford Attorneys



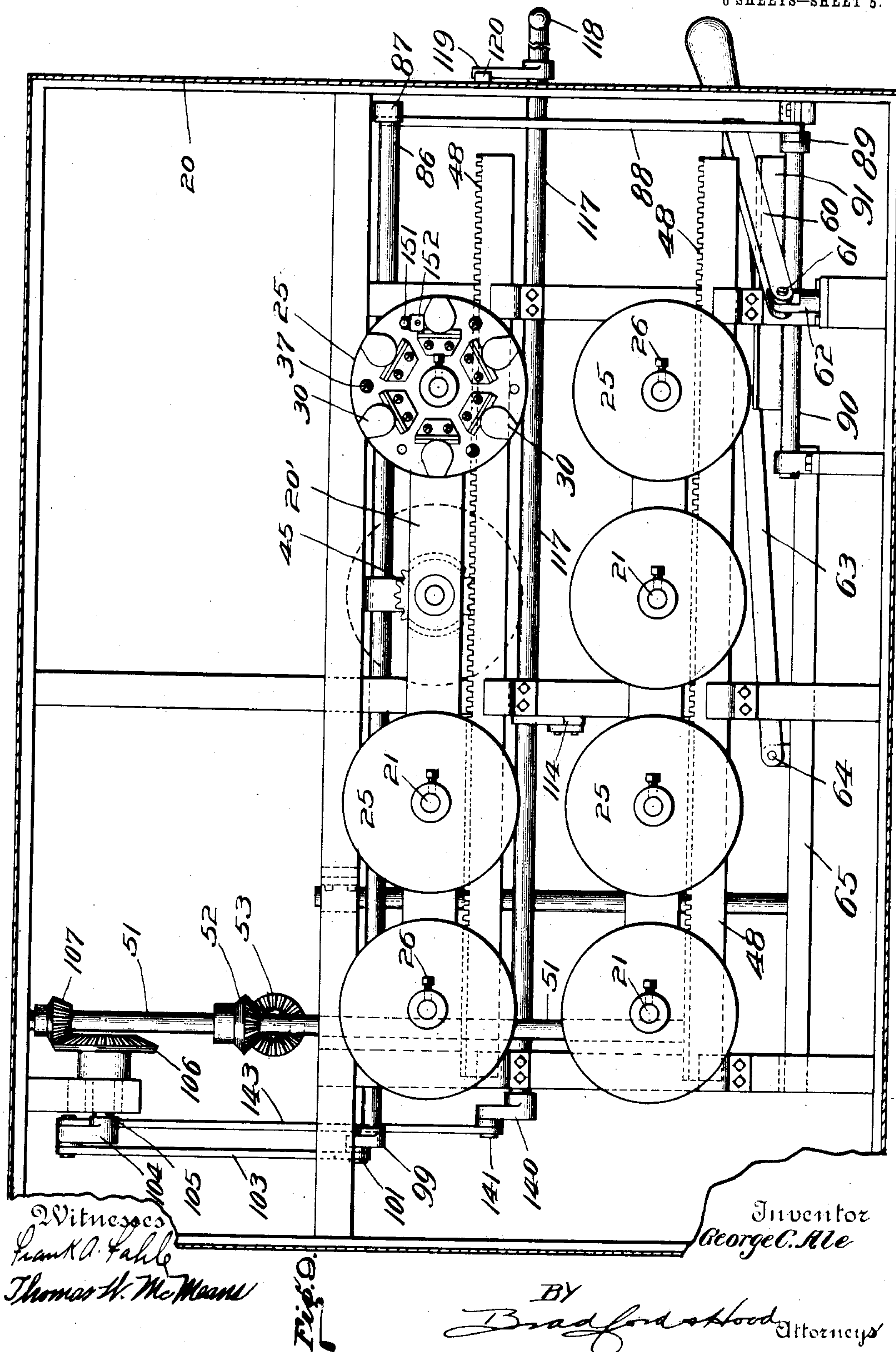
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6 SHEETS—SHEET 5.



No. 868,062.

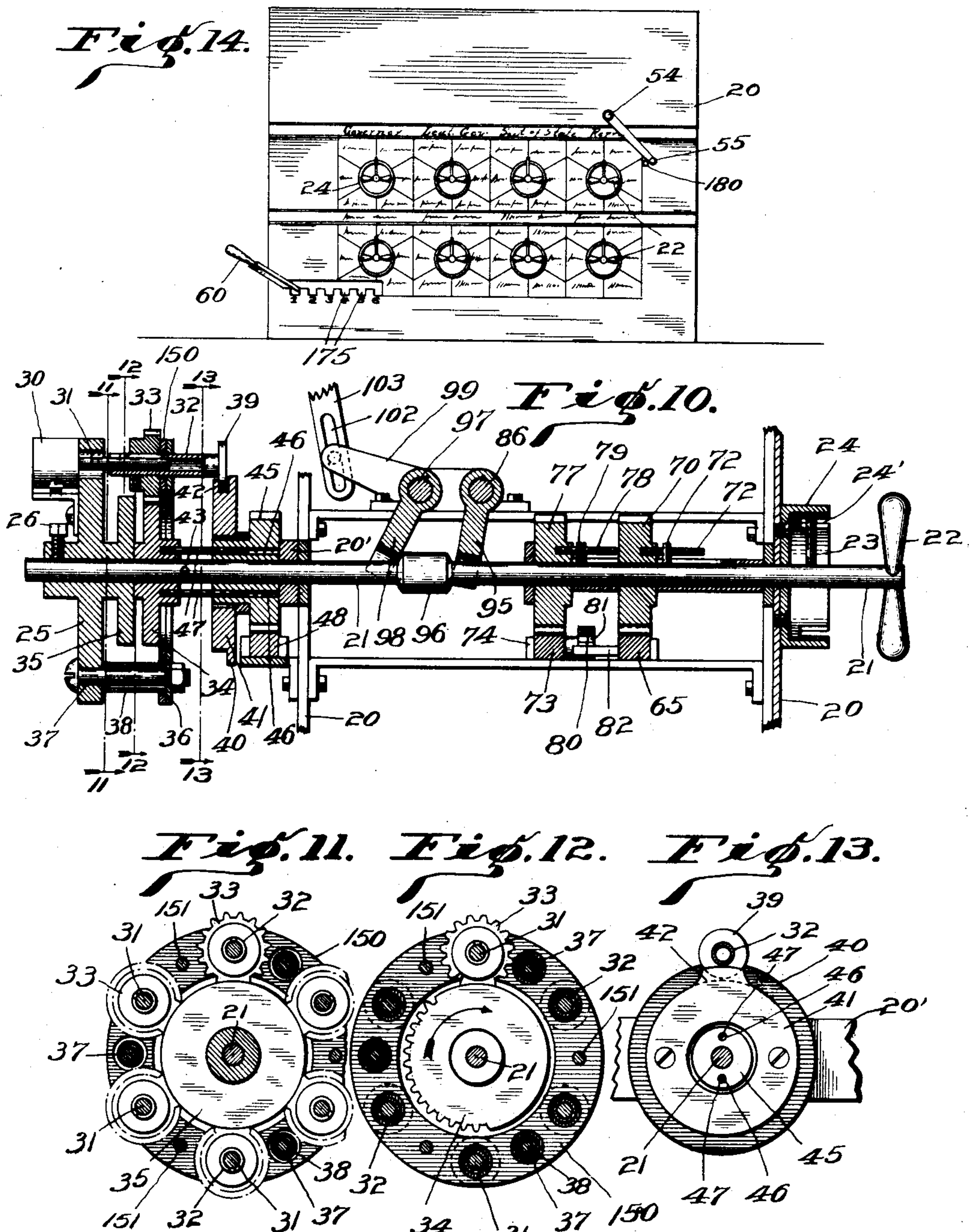
PATENTED OCT. 15, 1907.

G. C. ALE.

VOTING MACHINE.

APPLICATION FILED MAR. 25, 1907.

6 SHEETS—SHEET 6.



2 Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE C. ALE, OF GRAYFORD, INDIANA.

VOTING-MACHINE.

No. 868,062.

Specification of Letters Patent.

Patented Oct. 15, 1907.

Application filed March 25, 1907. Serial No. 364,248.

To all whom it may concern:

Be it known that I, GEORGE C. ALE, a citizen of the United States, residing at Grayford, in the county of Jennings and State of Indiana, have invented certain new and useful Improvements in Voting-Machines, of which the following is a specification.

The object of my invention is to produce an improved form of voting machine, the construction being such that counters (preferably positively actuated) are arranged in unit groups, the arrangement being such that the voter may positively shift all of the counting mechanisms of any group bodily so as to bring a particular counting mechanism of that group into position to be subsequently positively actuated (preferably simultaneously with other counters of other groups which may be similarly brought to desired position), the construction being also such that all counters not in position to be actuated will be positively locked against operation, and the construction being also such that the unit groups of counters may be locked against all manipulation and entirely withdrawn from the machine to be transported to any point desired for exhibition in case of contest.

The accompanying drawings illustrate my invention.

Figure 1 is a plan of a mechanism embodying my invention, the inclosing casing being shown in horizontal section; Fig. 2 a section on line 2—2 of Fig. 1, looking in the direction of the arrows; Fig. 3 a similar section on line 3—3 of Fig. 1; Fig. 4 a detail section of the locking means on line 4—4 of Fig. 5; Fig. 5 a section on line 5—5 of Fig. 4; Fig. 6 a sectional detail on line 6—6 of Fig. 7; Fig. 7 a plan of the operating racks and closely adjacent parts; Fig. 8 a partial plan of the straight ticket lever and closely associated parts; Fig. 9 a rear elevation, with parts of the mechanism removed; Fig. 10 an axial section through one of the units; Fig. 11 a section on line 11—11 of Fig. 10; Fig. 12 a similar section on line 12—12 of Fig. 10; Fig. 13 a section on line 13—13 of Fig. 10, and Fig. 14 a front elevation on a smaller scale, of the machine shown in the other views.

My invention consists primarily in the provision of a movable, preferably rotatable, head upon which is mounted a plurality of counters, as many counters being provided as there are candidates for a particular single candidate office, and the drawings show such a machine having a capacity of eight offices and six candidates for each office. It will of course be readily understood that any desired increase of capacity may be accomplished by mere duplication of parts.

In the drawings 20 indicates a suitable supporting frame and inclosing casing. Journaled in the frame

20 are a number of shafts 21, one for each office, and these shafts may be arranged in any desired manner, preferably in a plurality of horizontal rows, as shown. Each of the shafts 21 is axially reciprocable in its bearings and is provided at its outer end with a handle 22 which may be grasped by the voter and by means of which it may be both rotated and axially reciprocated.

Secured to the accessible end of each shaft 21 is a radially extending indicator finger 23 which may be caused to enter any one of a series of slots 24' formed in a ring 24 surrounding the shaft and secured to the casing 20, the ring 24 being provided with as many notches 24' as there are counters, hereinafter described, on the shaft 21.

Secured to the inner end of each shaft 21 is the counter-carrying head 25 which, as shown, is so secured to shaft 21 that, in operation, it may partake of all of the movements of said shaft, yet may be bodily detached from said shaft, such fastening in the present case being shown as a set screw 26.

Secured to head 25 are several counters 30, which preferably should be of the positive type. For instance, in the drawings I indicate roughly that type of counter known as the "Veeder", which is well known commercially in the market and comprises a plurality of concentric counting elements entirely inclosed within a casing and being operated by means of a rotary shaft 31 projected from the casing, generally coincident with the axis of the counting elements, the arrangement being such that a complete rotation of the shaft 31 is necessary to produce a single step of advancement of the units element of the counter. This type of counter being well known, I do not consider it necessary to describe its internal construction in detail, especially in view of the fact that such detail of construction has nothing to do with my present invention, counters of many different forms being easily available for my purpose.

Splined upon each shaft 31 is a hollow shaft 32 capable of axial movement upon shaft 31 without interfering with the simultaneous rotation of both, and this shaft 32 carries a mutilated gear 33 adapted to be brought into mesh with a mutilated master gear 34 journaled on shaft 31, or into engagement with a locking disk 35 secured to shaft 21; in the drawings the disk 35 being shown as integral with head 25.

In order to form a support for the projected ends of the hollow shafts 32, I secure an annulus 36 to head 25 by means of bolts 37, said annulus being spaced from the head by suitable spacing members 38.

Each shaft 32 is provided, at its outer end, with a flange 39, which lies immediately adjacent a flange of a stationary head 41 concentric with shaft 21 and pro-

vided at one point with a finger 42 which is parallel with flange 41 but spaced therefrom a distance sufficient to permit the entry of any one of the flanges 39 between it and flange 40, the arrangement being such that, by rotating shaft 21, the flange 39 of any one of the shafts 32 may be brought between flange 39 and lip 42 by a rotation of shaft 21 and, by an inward axial movement of said shaft, finger 42 will serve to restrain that particular shaft 32 so that its mutilated gear 33 will be held against axial movement while the locking disk 35 is withdrawn therefrom and the mutilated master gear 34 carried into engagement therewith. Gear 34, while free to be rotated independently upon shaft 21, is nevertheless confined against axial movement on said shaft by means of a pin 43 on one side and the locking disk 35 on the other, so that said gear 34 will partake of the axial movement of the shaft 21.

The stationary heads 41 are secured to a cross bar 20 which forms part of the main frame, and journaled in said cross bar, and upon each shaft 21, is an actuating gear 45, the hub of which extends through the adjacent head 41 and is provided with a pair of longitudinal perforations 46 adapted to slidably receive a pair of longitudinal pins 47, which are secured to the master gear 34. All of the gears 45 in a horizontal series are connected by a rack bar 48 and each of these rack bars is provided on one side with a rack 49 meshing with a pinion 50 carried by a vertical shaft 51 journaled in the main frame and provided with a bevel gear 52 meshing with a gear 53 carried by a shaft 54 which is projected through the front of the casing and provided with an operating lever 55, the proportions of the several gears and racks being such that a complete rotation of the mutilated gears 34 may be produced by a proper manipulation of the operating lever.

Any suitable means may be used to lock the parts against improper manipulation, but I prefer to provide a construction which will cooperate with mechanism by means of which a straight ticket may be voted by first setting all of the units by means of a single member, and using the same locking mechanism for controlling all the parts, the construction being such, however, that, after setting the parts for a straight ticket, any of the units may be individually shifted in order to permit "scratching". For this purpose I provide a straight ticket lever 60 which is pivoted on a horizontal axis 61 on the pin 62 journaled on a vertical axis in the main frame and constructed and mounted so that vertical movement of the pin is prevented.

Pivoted to lever 60 is one end of a link 63 the other end of which is pivoted at 64 to one of a series of horizontally sliding rack bars 65, one of which is provided for each horizontal series of shafts 21.

Each rack 65 is provided on its side with a rack 66 which meshes with a pinion 67 which pinions are carried by a shaft 68, the arrangement being such that the actuation of one of the rack bars 65 by means of lever 60 will cause a corresponding actuation of all of said rack bars 65.

Journaled upon each shaft 21 is a gear 70 provided with an axially extending finger 71 adapted to engage, in one direction only, a pin 72 carried by shaft 21, the arrangement being such that gear 70 may drive its shaft 21 in one direction only.

Arranged alongside each rack 65 is a similar rack 73 each of which is provided on its side with a rack 74 which meshes with a pinion 75, which pinions 75 are carried by shaft 76 which thus serves to connect all of the racks 73 for simultaneous movement.

Journaled upon each shaft 21 is a gear 77 which is like the gear 70 and like it is provided with a pin 78 adapted to engage a pin 79 carried by shaft 21, the pin 78 however engaging the pin 79 in the direction opposite to the direction of engagement between pin 71 and pin 72. Each rack 73 meshes with all of the gears 77 of the adjacent horizontal series of shafts 21.

In order to connect the several racks 65 and 73 for simultaneous movement under some conditions, I pivot, to one of the racks 73, a catch 80 which, near its free end, is provided with a shoulder 81 adapted to engage in one direction a finger 82 carried by the adjacent rack 65. In order to disengage this catch I provide a vertical lifting plate 83 connected by a link 84 and arm 85 to a rock shaft 86 which, by an arm 87, a link 88, and an arm 89, is connected to a rock shaft 90 provided with an arm 91 engaged by lever 60; the arrangement being such that, when lever 60 is depressed, plate 83 will be lifted and latch 80 withdrawn from finger 82. There are as many rock shafts 86 as there are horizontal series of shafts 21 and each of said rock shafts is provided with a series of fingers 95 each of which is adapted to engage a collar 96 carried by each shaft 21, the arrangement being such that when lever 60 is depressed all of the shafts 21 will be shifted slightly to the left in Fig. 2.

Arranged alongside each shaft 86 is a shaft 97 provided with a series of fingers 98 each of which is adapted to engage the adjacent collar 96 in opposition to the adjacent finger 95.

Each shaft 97 is provided with an arm 99 which arms are connected by a link 100 for simultaneous movement and one of said arms 99 is provided with a pin 101 which lies in a slot 102 of a link 103 connected through a crank 104 with a shaft 105.

Shaft 105 is provided with a gear 106 which meshes with a gear 107 carried by shaft 51.

In order to lock the various parts together and prevent actuation thereof until released, I secure to one of racks 48 a pin 110 adapted to be engaged by a catch 111 pivoted on the frame 20.

Catch 111 is provided near its free end with a notch 112 adapted to receive pin 110 and hold it against movement in either direction, and pivoted to the free end of catch 111 is a depending finger 113 arranged in the path of movement of one arm of a lever 114, the other end of which is connected by a link 115 and arm 116 to a rock shaft 117, which shaft is projected out through the casing at the entrance end of the machine and provided with an operating handle 118 and an indicator finger 119 adapted to indicate its position and hold the same in either of its positions by means of a segment 120, the shaft 117 being permitted a slight axial play by means of a spring 121.

Shaft 117 carries a pin 122 adapted to be brought into engagement with the free end of a catch 123 which is pivoted to pin 110.

Catch 123 is provided with a shoulder 124 adapted to lie normally behind a shoulder 125 formed on one of the rack bars 65, the arrangement being such that the nor-

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mal position of the catch 123 is one in which shoulder 124 lies in front of shoulder 125 so as to prevent any actuation of gears 77 and rack bars 73 by any manipulation of the shafts 21. And the catch 80, carried by one of the rack bars 73, prevents any manipulation of the rack bars 65 (to the left in Fig. 1) so long as the catch 123 is in position.

The catch 123 is yieldingly held to its position by means of the spring compressor 126 which serves to hold the free end of catch 123 in proper position during the entire bodily movement of the catch 123 to the right in Fig. 1, during the subsequent manipulation of the machine, as described hereinafter.

In order to automatically return the shaft 117 to its normal position at the completion of operation of the machine, I connect to the pin of crank 104 a link 143 provided at its lower end with a slot 142 adapted to receive a pin 141 of an arm 140 carried by shaft 117.

The operation is as follows:—With the parts in the positions indicated in Figs. 1, 2 and 3, the voter is supposed to have passed to the front of the machine and the inspector or the voter has shifted shaft 117, so as to cause pin 122 thereof to withdraw shoulder 124 of catch 123 from behind shoulder 125. This prior movement of shaft 117 has caused lever 114 to assume the position shown in full lines in Fig. 4, thus moving the catch 111 to the position shown in full lines in Fig. 5, so as to release pin 110 and thus free the racks 48 for longitudinal movement. Supposing now that the voter desires to vote a straight ticket, he will grasp lever 60 and swing the same to the right until it comes in alinement with that notch 175 which corresponds to the desired party. This movement of lever 60 causes an actuation of all of the rack bars 73 to the right which actuation causes, through pins 79 and 78, a simultaneous rotation of all of the shafts 21 until their respective indicator fingers 23 come into alinement with the desired candidate indication on the face of the machine and into alinement with the corresponding notch 24'. This actuation of the rack bars 73 causes, through shoulder 81 and finger 82, a corresponding simultaneous actuation of all of rack bars 65, and these rack bars, acting upon gears 70, also operate through pins 71 and 72, upon the shafts 21. By this arrangement of the rack bars 65 and 73 in pairs and the arrangement of the pins 71—72 and 78—79, acting in opposite directions, it will be impossible for the voter, by any sudden actuation of the actuating member 60, to drive the rack bars 65 to the right with sufficient speed to cause any spinning of the shafts 21 beyond their proper position for the particular position of the lever 60. The connection described also permits the control of movement of the rack bars 65 and 73 in either direction by the lever 60 so that the several voting units may be readily brought to a particular party position. When lever 60 has been brought to the proper position it will be depressed into the proper notch 175, and acting upon lever 91 of shaft 90 will cause arm 89 to pull down on link 88, and this link operating on the arm 87 of the shafts 86 will cause the arms 95 of said shafts to engage all of the collars 96 of all of the shafts 21 so as to drive said shafts axially into the machine (to the position shown in Fig. 10).

Prior to the axial actuation of the shafts 21 the parts will be in the position shown in the upper series of Fig. 2 where all of the gears 33 are in engagement with the

locking disks 35 of their respective heads and out of engagement with their master gears 34. (The position of the parts shown in lower part of Fig. 2 is that assumed immediately prior to the removal of a counter head from the machine for distant inspection. In this portion of the figure the locking ring 150 has been moved toward head 25 so as to engage gears 33 and prevent any movement thereof away from the locking disk 35, said locking ring 150 being provided with fingers 151 which extend through the head 25 and adapted to be locked in position by a suitable padlock 152). The rotation of the shafts 21 causes a revolution of the various counters 30 about the axis of the shaft and brings their flanges 39 successively into position behind the finger 42, as clearly shown in Fig. 13 (all of the flanges except one having been omitted for clearness of illustration) so that the parts are in the positions indicated in the upper portion of Fig. 2, where the upper one of flanges 39 lies behind finger 42 while all of the other flanges 39 are free to be moved to the left. As soon as the shafts 21 are projected axially into the machine those flanges 39 which lie behind their respective fingers 42 are restrained from movement with their heads 25 and consequently, when said heads are moved to the position shown in Fig. 10, the particular gear 33 which is carried by that shaft 32 having its flange 39 behind the finger 42 is restrained from axial movement and therefore the locking disk 35 is carried out of the plane of this gear 33 and the master gear 34 projected into the plane of said gear and into mesh with said gear. If now, the voter desires to "scratch" he should raise lever 60 out of its notch and return it to its normal position, thus drawing racks 65 back to the left (Fig. 1) to their normal positions and thus causing a reverse rotation of all of the gears 70 and thereby drawing their pins 71 back away from the pins 72 of the shafts 21. The voter will now grasp the particular shaft 21 relating to the office wherein he desires to "scratch" and pull said shaft outward axially as far as possible, thus withdrawing the finger 23 from ring 24 and leaving said shaft free to be rotated in either direction. A rotation of this shaft 21 in a reverse direction, i. e., clockwise, will have no effect upon any of the gearing because the pin 72 thereof will not be in engagement with the corresponding pin 71 until the shaft has been returned to its normal non-voting position. A rotation of this shaft 21 in a counter clockwise position will bring its pin 79 into engagement with the pin 78 of the corresponding gear 77 and will rotate said gear in a counter clockwise direction and drive the gears 73 still further to the right (Fig. 1) but this movement of the racks 73, while causing a corresponding rotation of all the gears 77 will not produce any rotation of any of the other shafts 21 because the pins 78 are only capable of engaging pins 79 in a clockwise direction. The voter may thus manipulate any of the shafts 21 independently so as to set the indicator 23 thereof to the proper position to bring that counter 30 corresponding to the candidate for whom he desires to vote, in position for actuation, and he will thereupon push the shaft 21 inward to the position shown in Fig. 10 so as to cause the corresponding master gear 34 to mesh with the corresponding gear 33 of that candidate counter.

When the voter has finally set each particular shaft to the position which he desires, so as to indicate a vote for the candidates for whom he desires to vote, all of

the counters corresponding to all of said candidates are in position for actuation but none of said counters has as yet had its counting elements moved. When the machine has been set, as described, the voter will grasp

5 crank 55 and rotate the same in a counter clockwise direction, as indicated by the arrow in Fig. 14, and this rotation will cause a rotation of shaft 51 so as to drive all of the racks 48 to the right in Fig. 1, this movement causing a rotation of the gears 45 and a corresponding

10 rotation of the master gears 34 so that those gears 33 which are in mesh with the master gears will be given a sufficient rotation to cause a counter actuation of the corresponding counters; in the structure illustrated in the drawings this actuating rotation of the gears 33

15 being a complete rotation. Actuation of shaft 54 in a counter clockwise direction is limited in any desired manner, as for instance, by a stop 180. Just before the counter clockwise movement of shaft 54 is completed, link 103 will have moved downward enough so that pin

20 101 will be engaged by a downward push so as to swing fingers 98 (to the left in Fig. 3 and to the right in Fig. 2) so as to move all of the shafts 21 outward axially (to the right in Fig. 10) so as to bring said shafts, and the parts immediately connected therewith, to normal position,

25 thus returning the gears 33 which have just been actuated out of mesh with the master gears 34 and into engagement with the locking disks 35. At the same time link 143 is moved downward enough so that it will engage pin 141 of arm 140 so as to drive shaft 117 back to

30 its normal position and swing lever 114 to the position indicated in dotted lines in Fig. 4, so that catch 111 may be dropped down to the position indicated in dotted lines in Fig. 5 in position to be free to engage pin 110 when it is returned to normal position. When the

35 racks 48 are carried to the right (Fig. 1), catch 123 is carried therewith to the right so that its shoulder 124 will pass to the right (Fig. 1) of any position to which the shoulder 125 may have been carried by any previous manipulation.

40 As soon as the first movement of shaft 54 has been completed the voter will return said shaft, by a clockwise direction, to normal position, and this reverse rotation of shaft 54 will cause a return of racks 48, and the parts connected therewith, to normal position. At the

45 same time catch 123 will engage shoulder 125 so as to drive all of the racks 173 back to normal position thus rotating all of the shafts 21 back to normal position, and during this reverse rotation of the shafts 21, their pins 72 will come into engagement with the pins 71 of the

50 gears 70, wherever they may have been left by the voter, and return the same to normal position, at the same time causing a rotation of shaft 68 so as to cause a return movement of the straight lever 60 if it has not before been moved back to normal position by the voter.

55 The parts are thus automatically returned to normal position and pin 110 is engaged by catch 111 so that the parts are locked against all further manipulation until shaft 117 is again brought to the position shown in the drawings.

60 In the present drawing I have not shown any mechanism especially designed to provide for "group" voting, and I have purposely omitted any such illustration in order to more clearly illustrate the particular construction which forms the subject-matter of my present

65 invention.

I claim as my invention:

1. In a voting machine, the combination, of a plurality of rotatable shafts, each accessible by the voter and each capable of axial movement by the voter, a counter carrier mounted on each of said shafts, a plurality of counters carried by each of said heads, and means for actuating the counter of each head which has been brought, by movement of the shaft, to actuating position. 70
2. In a voting machine, the combination, of a plurality of counter heads, a plurality of counters carried by each of said heads, an immediate operating gear for each of said counters, a master operating gear for each head, and means operable by the voter for bringing any one of said immediate gears into operative connection with its master operating gear and for simultaneously actuating said master operating gears to operate the particular counters connected therewith. 75
3. In a voting machine, the combination, of a plurality of rotary and axially movable shafts each accessible by the voter, of a head carried by each of said shafts within the machine, a plurality of counters carried by each of said heads, a plurality of immediate operating gears one for each counter, a master operating gear for each set of immediate operating gears, and means operable by the voter for connecting any immediate operating gear with its master operating gear and for operating said master operating gear to cause an actuation of one of the counters related thereto. 80
4. In a voting machine, the combination, of a plurality of rotary and axially movable shafts each accessible by the voter, of a head carried by each of said shafts within the machine, a plurality of counters carried by each of said heads, a plurality of immediate operating gears one for each counter, a master operating gear for each set of immediate operating gears, means operable by the voter for connecting any immediate operating gear with its master operating gear and for operating said master operating gear to cause an actuation of one of the counters related thereto, and means for normally holding the immediate operating gears of each head against operation. 85
5. In a voting machine, a voting unit comprising a rotary and axially movable shaft accessible by the voter, a head carried by said shaft, a plurality of counters carried by said head and each provided with an immediate operating gear, a master gear for said head, means controlled by the movement of the shaft for connecting and disconnecting the immediate actuating gears with the master gear, and means for operating the master gear to produce actuation of the counter connected therewith through its immediate operating gear. 90
6. In a voting machine, a voting unit comprising a rotary and axially movable shaft accessible by the voter, a head carried by said shaft, a plurality of counters carried by said head and each provided with an immediate operating gear, a master gear for said head, means controlled by axial movement of the shaft, for shifting any immediate gear into and out of mesh with the master gear, and means for rotating the master gear. 95
7. In a voting machine, a voting unit comprising a rotary and axially movable shaft accessible by the voter, a head carried by said shaft, a plurality of counters carried by said head and each provided with an immediate operating gear, a master gear for said head, means controlled by axial movement of the shaft, for shifting any immediate gear into and out of mesh with the master gear, and means for rotating the master gear. 100
8. In a voting machine, a voting unit comprising a rotary and axially movable shaft accessible by the voter, a head carried by said shaft, a plurality of counters carried by said head and each provided with an immediate operating gear, a master gear for said head, means controlled by axial movement of the shaft for shifting any immediate gear into and out of mesh with the master gear, means for rotating the master gear, and a locking member arranged in position to engage the immediate operating gears not in connection with the master gear. 105
9. In a voting machine, a voting unit comprising a rotary and axially movable shaft accessible by the voter, a head carried by said shaft, a plurality of counters carried by said head and each provided with an immediate oper- 110

ating gear, a master gear for said head carried by the shaft, means controlled by axial movement of the shaft for shifting any immediate gear into and out of mesh with the master gear, means for rotating the master gear, and a locking member arranged in position to engage the immediate operating gears not in connection with the master gear.

10. In a voting machine, a voting unit comprising a rotary and axially movable shaft, a plurality of counters carried by said shaft, an operating gear for each of said shafts shiftable relative to the carrying shaft and each of said operating gears provided with a member by means of which it may be engaged to accomplish such relative movement, and a member arranged in the path of movement of said last mentioned members around the shaft and adapted to engage any one of said last mentioned members, a master gear for operating said operating gears, and means for operating said master gear.

11. In a voting machine, a voting unit comprising a rotary and axially movable shaft, a plurality of counters carried by said shaft, an operating gear for each of said shafts shiftable relative to the carrying shaft and each of said operating gears provided with a member by means of which it may be engaged to accomplish such relative movement, and a member arranged in the path of movement of said last mentioned members around the shaft and adapted to engage any one of said last mentioned members, a master gear for operating said operating gears, means for operating said master gear, and means for locking said gears against movement.

12. In a voting machine, a voting unit comprising a rotary and axially movable shaft, a plurality of counters carried by said shaft, an operating gear for each of said shafts shiftable relative to the carrying shaft and each of said operating gears provided with a member by means of which it may be engaged to accomplish such relative movement, and a member arranged in the path of movement of said last mentioned members around the shaft and adapted to engage any one of said last mentioned members,

a master gear for operating said operating gears, means for operating said master gear, and means for normally holding said operating gears against rotation.

13. In a voting machine, the combination, with a plurality of shafts, each controlling counting mechanism, of a pair of gears journaled on each shaft, interengaging members between each of said gears and the shaft for acting in one direction only, and each acting in a direction opposite to the other, of a pair of rack bars each connecting the corresponding gears of the several shafts, and a withdrawable connection between said two rack bars.

14. In a voting machine, the combination, of a plurality of rotatable and axially movable shafts, a plurality of counters carried by each of said shafts, means controlled by the movement of each shaft for determining the actuation of the counters carried thereby, a straight ticket lever, and intermediate connections between said lever and the several shafts whereby said levers may simultaneously actuate the several shafts, and the said shafts may be individually actuated.

15. In a voting machine, the combination, with a plurality of shafts, each controlling counting mechanism, of a pair of gears journaled on each shaft, interengaging members between each of said gears and the shaft for acting in one direction only, and each acting in a direction opposite to the other, of a pair of rack bars each connecting the corresponding gears of the several shafts, a withdrawable connection between said two rack bars, a straight ticket lever, and intermediate connections between said straight ticket lever and one of the rack bars whereby said lever may operate the shafts.

In witness whereof, I, have hereunto set my hand and seal at Indianapolis, Indiana, this sixteenth day of March, A. D. one thousand nine hundred and seven.

GEORGE C. ALE. [L. S.]

Witnesses:

ARTHUR M. HOOD,
THOMAS W. MCMEANS.