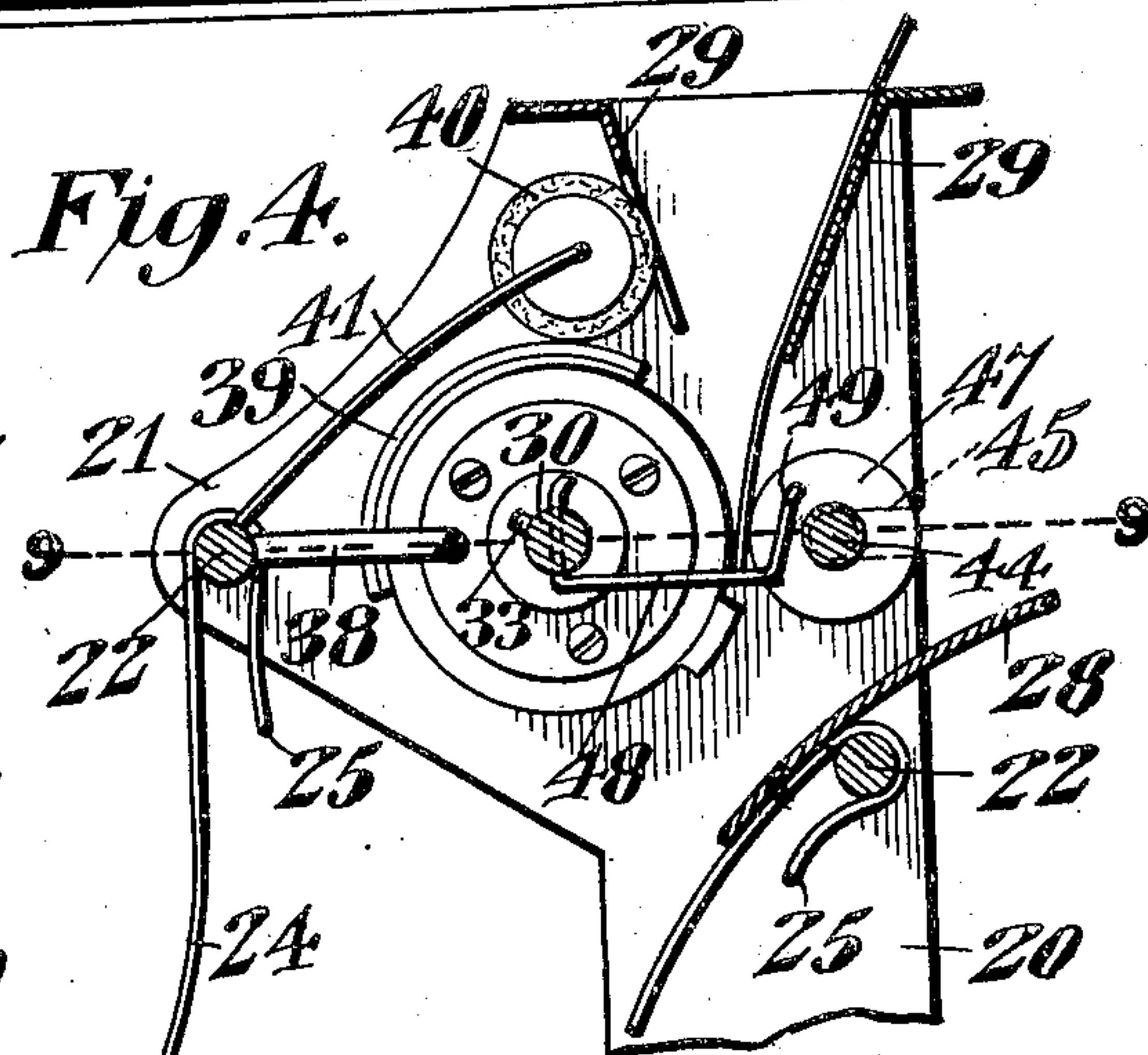
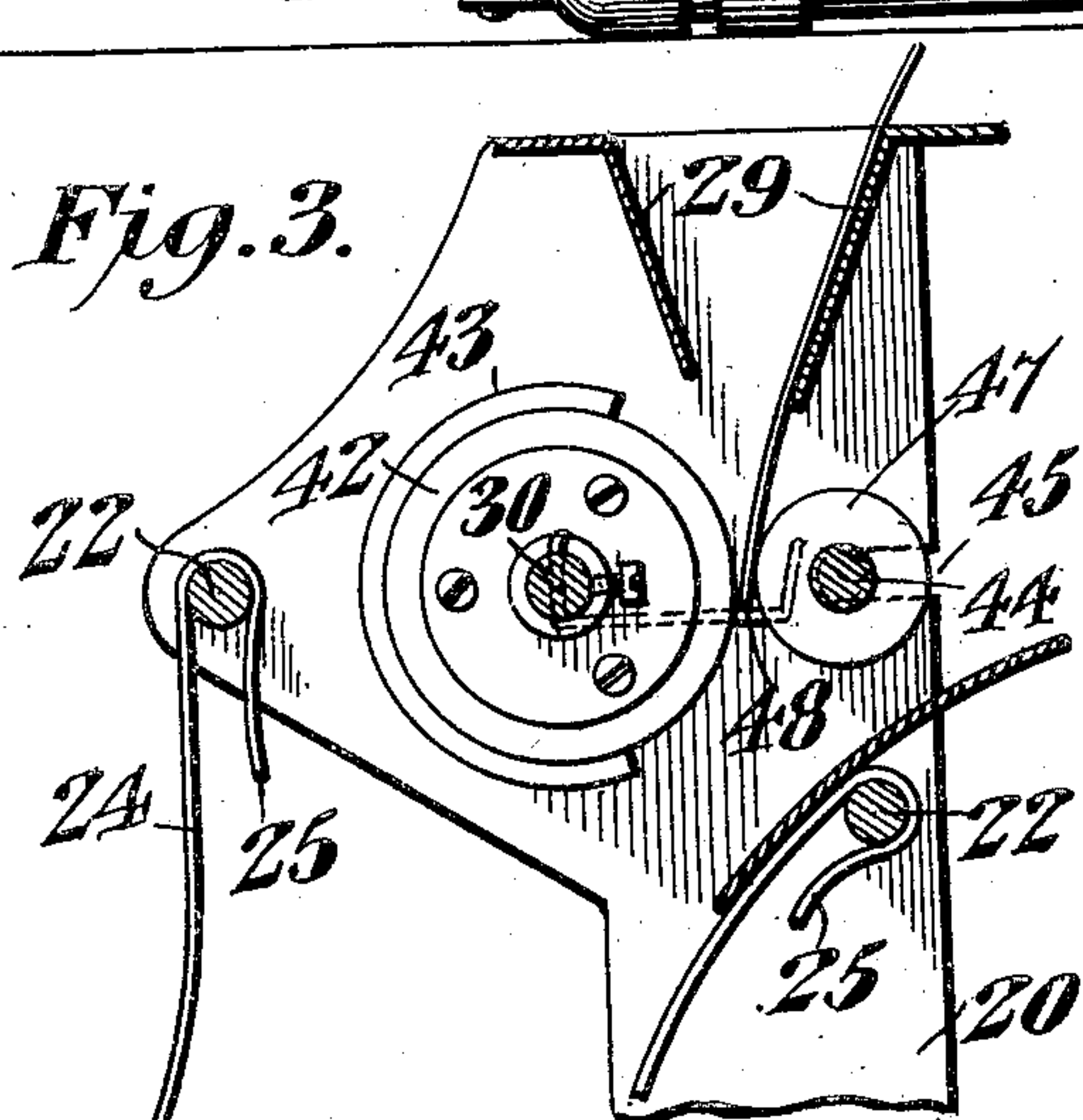
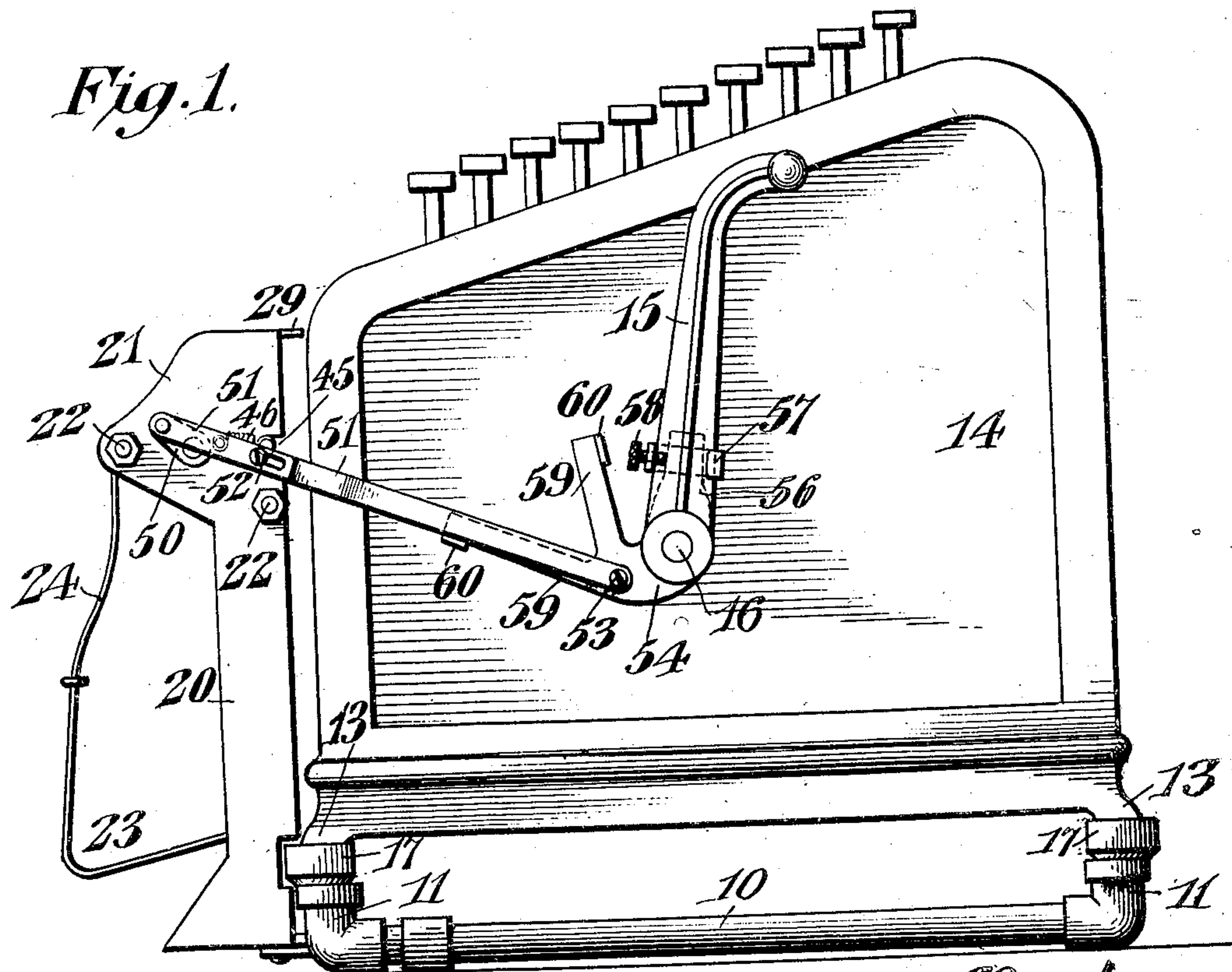


938,455.

Fig. 1.



Witnesses

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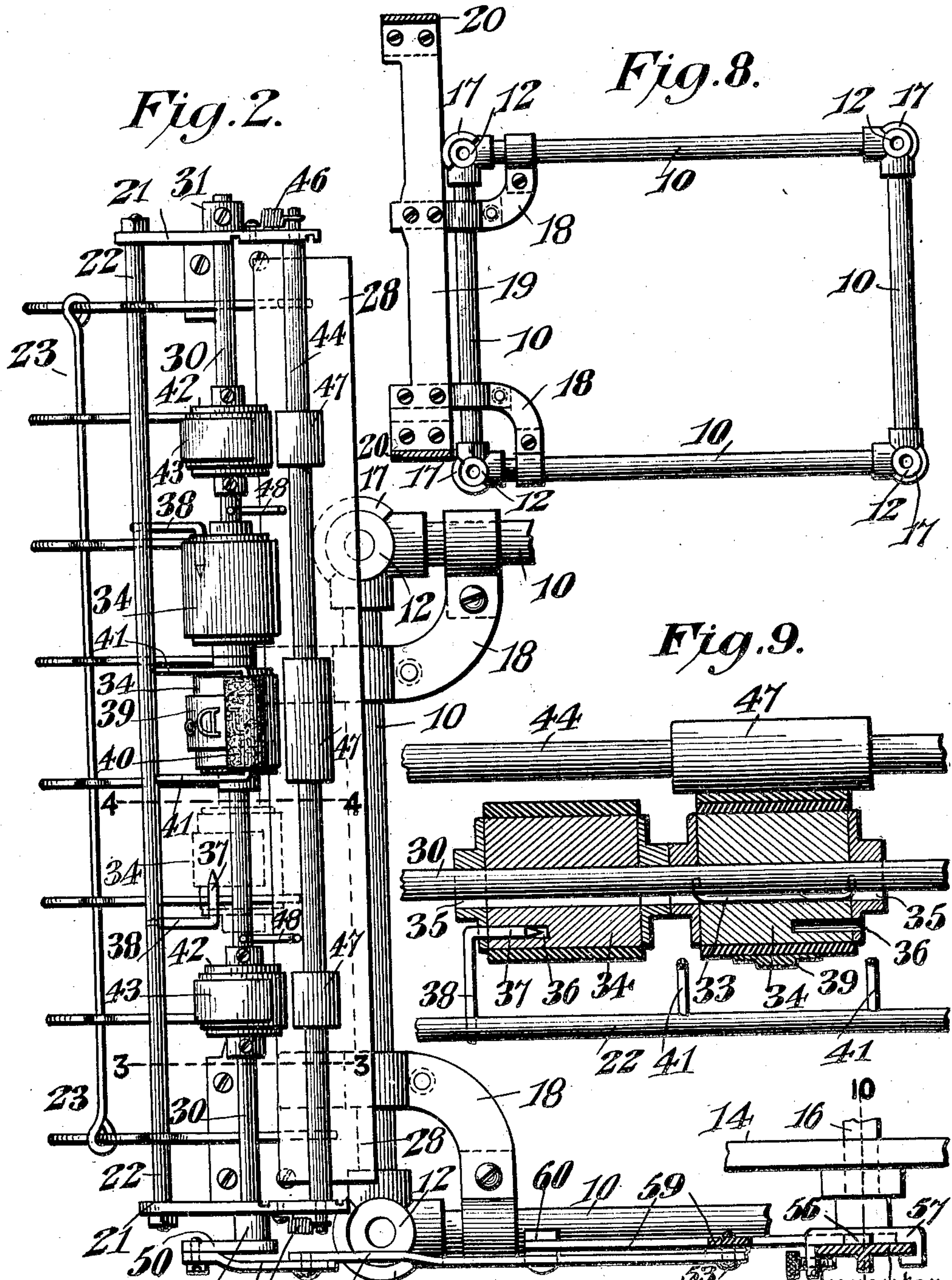
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APPLICATION FILED JULY 20, 1908.

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Patented Nov. 2, 1909.
3 SHEETS—SHEET 2.



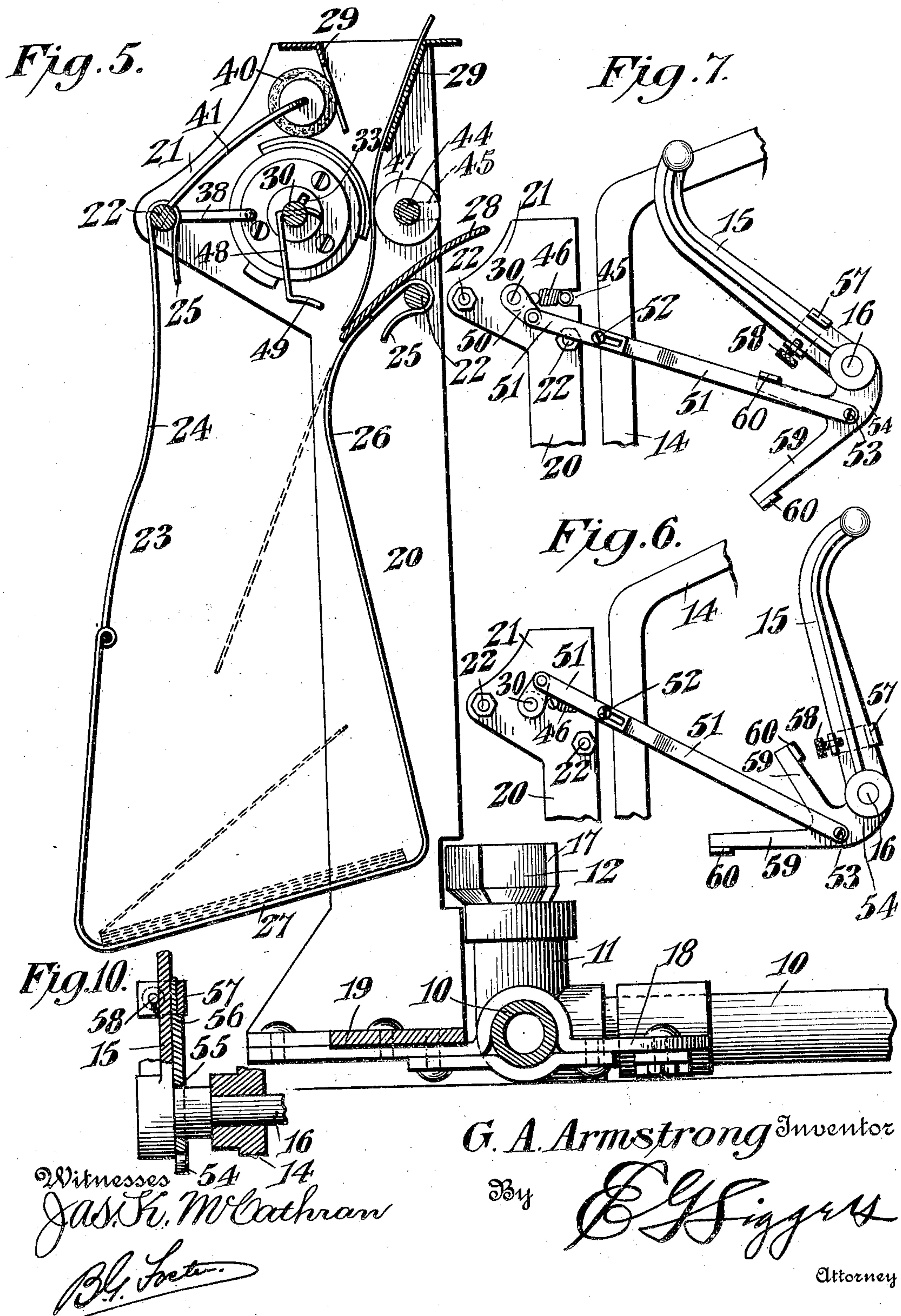
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UNITED STATES PATENT OFFICE.

GEORGE A. ARMSTRONG, OF YOUNGSTOWN, OHIO.

CHECK-STAMPING MECHANISM FOR COMPUTING-MACHINES.

938,455.

Specification of Letters Patent.

Patented Nov. 2, 1909.

Application filed July 20, 1908. Serial No. 444,498.

To all whom it may concern:

Be it known that I, GEORGE A. ARMSTRONG, a citizen of the United States, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented a new and useful Check-Stamping Mechanism for Computing-Machines, of which the following is a specification.

In commercial institutions where large numbers of checks or other analogous papers are handled, it is the usual custom to employ computing machines for adding together the amounts designated by said checks or papers. It is also the custom to indorse or otherwise stamp the same, thus necessitating a second handling of the papers in question.

The present invention relates to means employed in connection with a computing machine for stamping or printing the checks or other instruments as the amounts designated thereon are computed by the machine, thus effecting a material saving in time and labor and insuring the marking of each check or paper, the amount of which is recorded by the machine.

It is one of the primary objects of the present invention to provide mechanism that is very simple, practicable and entirely accurate, is directly associated with the computing machine, is neither clumsy in appearance nor action, occupies but very little space, and is very conveniently arranged for the operator of the machine.

A further object is to provide mechanism that will successively print and pile the checks in the order in which their amounts are recorded by the computing machine, and a still further and important object is to provide the mechanism in the form of an attachment that can be used in connection with practically any well known type of machine and can be applied thereto by an unskilled person.

An embodiment of the invention that is at present considered the preferable one is illustrated in the accompanying drawings and is described in the following specification.

It will be evident from an inspection of the claims hereto appended that the invention is by no means limited to the exact structure disclosed.

In the drawings:—Figure 1 is a side elevation of a well known form of adding ma-

chine, showing the printing mechanism associated therewith. Fig. 2 is a plan view of said mechanism. Figs. 3 and 4 are respectively detail sectional views on the line 3—3 and 4—4, with the parts as shown in Figs. 1 and 2. Fig. 5 is a vertical sectional view through the printing mechanism, showing the same when printing or stamping a check. Figs. 6 and 7 are detail side elevations illustrating different positions assumed by the actuating mechanism. Fig. 8 is a plan view of the base. Fig. 9 is a detail sectional view on the line 9—9 of Fig. 4. Fig. 10 is a sectional view on the line 10—10 of Fig. 2.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

In the embodiment illustrated, a base is employed, in the form of a rectangular frame 10 having at its corners upstanding lugs 11 provided with sockets 12 to receive the feet 13 of any well known type of computing machine. Thus in the present embodiment, a machine 14 is illustrated, known generally as a Burroughs adding machine. It is believed to be unnecessary to go into the detail structure of this machine, as the same is well known to the art. It is sufficient to state that it is provided with an oscillatory handle crank 15 carried by an actuating rock shaft 16, the said handle crank being disposed at one side of the machine and the rock shaft extending into said machine and being connected with the mechanism thereof. The sockets 12 to which reference has already been made, are preferably formed by upstanding curved flanges 17 that have their inner portions cut away so that the inner sides of the sockets are open.

Secured to the front portion of the base frame 10 by brackets 18 or other suitable devices, is a horizontal bar 19 arranged in advance of said frame, and carrying at its ends standards 20. The upper portions of these standards have enlargements 21, which are connected by tie bolts 22, and suspended from these tie bolts, is a holder for a plurality of checks, said holder being preferably in the form of a basket 23 constructed of wire and having upstanding arms 24 terminating in hooks 25 that engage over the tie bolts 22. It will be noted that the rear wall 26 of this basket is inwardly curved, and that the bottom 27 is disposed

at a downward and forward inclination. Secured to the upper end of the rear wall is a downwardly and forwardly inclined directing plate 28. Arranged above the open upper end of the basket is check receiving means substantially in the form of a funnel composed of convergently disposed walls 29 secured to and between the enlargements 21 of the standards, and having an upper open receiving mouth.

Arranged between the check receiving device or funnel and the check holder or basket is the printing mechanism, and for this purpose, a rock shaft 30 is employed that is journaled in the enlargements 21 and projects beyond the same. Collars 31 and 32, secured to the projecting ends of the shaft 30, prevent the longitudinal displacement of said shaft. The central portion of the shaft 30 is shown more particularly in Fig. 9, is provided with a key 33 preferably formed of spring wire, and slidably mounted on this shaft, are two printing devices in the form of rollers 34 having keyways 35 to receive the key 33. The rollers furthermore have sockets 36 opening through their outer ends, which sockets are adapted to receive the inwardly bent ends 37 of holding pins 38 secured to one of the tie bolts 22. Carried on the periphery of these printing devices is suitable type, preferably rubber forms 39, which may be of any suitable character for indorsements, cancellations or the like. Located over the portion of the shaft having the key 33 is an inking roller 40, which is supported on yielding arms 41 secured to the tie bolt 22, said inking roller thus being yieldingly maintained in coaction with the printing device that is engaged by the key 33. Secured to the shaft 30 at the outer ends of the printing rollers 34, are feed rolls 42, said rolls, as shown more particularly in Figs. 2 and 3 having yielding rims 43 that extend but partially around the rolls. An idler shaft 44 is located in rear of the shaft 30 and is journaled in slots 45 formed in the rear portions of the standards 20. This shaft 44 is held in the inner ends of the slots, or in other words, is yieldingly urged toward the shaft 30 by means of coiled springs 46 secured to the standards and engaged with the projecting ends of said shaft 44. Mounted on the shaft 44 and cooperating with the feed rolls 42 and the printing roller that is engaged with the key 33 are clamping or auxiliary feed rolls 47. The shaft 30 furthermore carries check supporting means in the form of fingers 48 having offset free ends 49, these fingers being located on opposite sides of the printing rollers and so arranged that they extend practically across the space between the shafts 30 and 44 when the cut away portions of the rolls are opposite the auxiliary rollers 47. When so arranged all the opposing rollers

are out of engagement, as will be evident by reference to Figs. 2, 3, and 4, in which case, if a check is introduced through the receiving funnel 29, its lower edge will rest upon the fingers 48, as illustrated in Figs. 3 and 4.

The collar 32, which is secured to one of the projecting ends of the shaft 30, is provided with a crank arm 50, to the free end of which is pivoted one end of an extensible link comprising slidably associated sections 51 adjustably fastened together by a screw 52 or other suitable device. The other end of this link is pivoted as shown at 53 to a crank plate 54, carried by a hub 55, through which the rock shaft 16 of the handle crank 15 of the machine 14 is passed. This hub 55 is furthermore provided with an arm 56, which extends alongside the handle crank 55, and a clip 57 that detachably embraces said handle crank, is also arranged to embrace the arm 56 so as to hold the two against relative movement. The clip 57 is fastened by a suitable set screw 58. Projecting from the crank plate 56 of the hub 55 are divergently disposed arms 59, which operate on opposite sides of the link 51 and have offset lugs 60 that engage the opposite edges of said link upon the oscillation of the handle crank for the purpose hereinafter explained.

To associate the mechanism above described with a computing machine, all that is necessary is to place the machine on the base, and it can be properly positioned by inserting the feet 13 into the sockets. The handle crank of the rock shaft is then removed and the hub 55 placed thereon in any desired way. The parts are then in operative associated relation, though it is possible that the link 51 may require lengthening or shortening slightly in order that it will properly accommodate itself to the swing of the actuating handle crank 15. The normal position of the parts when not in use, is illustrated in Figs. 1, 2, 3 and 4, in which case, it will be noted that the crank 50 of the shaft 30 is just above its dead center, and the crank connection 53 of the hub is forward. The checks or other papers to be added and indorsed or otherwise stamped are arranged in a pile in the usual manner, and the operator as rapidly as he sets up the amount of the uppermost on the adding machine, places it with its back foremost into the receiving hopper 29. Its lower edge will thereupon rest on the supporting fingers 48, as shown in Figs. 3 and 4. To record the amount set up, the handle crank 15 is swung forwardly and returned in a manner well understood. As this crank swings forwardly, it will be evident that the link 51 will move rearwardly. Consequently the crank 50 will be partially revolved. The upper arm 59 at the same time, will swing downwardly, and the lug 60 thereof striking the upper edge of the link 51, as shown in

Fig. 7, will cause the link to move downwardly and thus swing the crank 50 past its rear or lower dead center. As the handle crank returns therefore, it will be evident by reference to Fig. 7 that the crank 50 will continue its rotary movement, and as said handle crank 15 approaches its original position, the lug 60 of the lower arm 59 will strike the lower edge of the link 51, causing the crank 50 to swing just beyond its dead center, thus bringing the parts to their original positions as illustrated in Fig. 1. As a result, it will be noted that upon each complete oscillation of the handle, crank 15, the crank 50, and consequently the shaft 30 to which it is connected, will have one complete revolution.

Referring again to the printing and feeding mechanism, the check as originally placed therein, is supported by the fingers 48. As the shaft 30 revolves therefore, these fingers are swung downwardly and rearwardly from beneath the edge of the check, at the same time, the printing roller and the feed rolls will be revolved so that said check will be engaged between the same and the auxiliary rollers 47, as shown in Fig. 5. Consequently the check will be moved downwardly, and at the same time printed or stamped. As the shaft 30 continues to revolve, the check will pass the same, and sliding over the guide plate 28 and rearwardly curved portion 26 of the basket, will be directed downwardly so that it will fall face down into the basket. The checks are of course successively passed into the mechanism as fast as their amounts are set up on the adding machine, and these checks are thus passed through the printing and feeding means and piled in the basket from which they can be readily removed. It will therefore be evident by reference to Fig. 1 that the mechanism is simple and occupies but very little space, and that it can be applied by an unskilled person to the machine. While it is shown in the form of an attachment, and is preferably so constructed, it will be evident that it may be made a permanent part of the machine. With this structure therefore, checks or other papers of an analogous nature may be indorsed, canceled or otherwise stamped as rapidly as their amounts are recorded, and without the necessity of separately handling them. A very considerable amount of time and labor is thus saved, particularly in large establishments where great numbers of such papers are handled. The use of two printing devices is advantageous in that stamps of different characters can be employed on the same machine. For instance, one can be employed for indorsing domestic and the other foreign checks. Moreover when one is in use, the other is out of associated relation with the checks passed through the mechanism, and

is held stationary by its engagement with the coacting holding pin 38.

From the foregoing, it is thought that the construction, operation, and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. A check canceling attachment for computing machines comprising a base frame, standards rising from the frame at the front thereof, a printing mechanism carried by the standards and including rotary type and platen elements coacting to simultaneously feed and print a check, means for connecting the mechanism with the operating lever of a computing machine to rotate the elements, a basket carried by the standards and disposed under the printing mechanism to receive the check delivered by the elements, and socket devices at the corners of the base frame for receiving the corner feet of the computing machine adapted to rest on the base frame behind the standards and printing mechanism.

2. In a printing attachment to adding machines, a check receiver adapted to be supported in front of said adding machine, comprising lateral standards, U-shaped wire holders supported at their open ends in the standards, transverse rolls mounted in the standards, one of which is a printing roll, mechanism for rotating said printing roll, and means detachably connecting the actuating mechanism of the printing roll with the actuating mechanism of the adding machine.

3. In a printing attachment to adding machines, lateral vertical standards, means for supporting the standards in front of said adding machine, front and rear transverse rods connecting the standards at their upper ends U-shaped wire frames each having its ends attached to the front and rear standards, transverse shafts mounted in said standards, opposed rolls mounted on the shafts, one of which is a printing roll, mechanism for rotating said shafts, and means for detachably connecting the actuating mechanism of the printing roll shaft with the actuating mechanism of the adding machine.

4. In a printing attachment to adding machines, a check receiver adapted to be supported in front of said adding machine, comprising lateral standards having enlarged upper ends, transverse rods connecting the

upper ends of the standards, U-shaped wire frames supported at their upper ends on said transverse rods, opposed shafts mounted in the upper ends of the standards, an idler roll on one of said shafts, a printing roll on the other of said shafts, check guides arranged above the said rolls, an inking roll supported above and in contact with the printing roll, mechanism for rotating the printing roll, and idler roll, and means detachably connecting the actuating mechanism of the printing roll with the actuating mechanism of the adding machine.

5. In a printing attachment to adding machines, a check receiver adapted to be supported in front of said adding machine, but detachable therefrom and open at its upper end, a shaft mounted transversely in the receiver and having a printing roll thereon and opposed check-engaging rolls, a shaft parallel with the first-named shaft having thereon idler rolls engaging with the rolls on the first-named shaft, mechanism for rotating the printing roll shaft, and means detachably connecting the actuating mechanism of the printing roll with the actuating mechanism of the adding machine.

6. In a printing attachment to adding machines, a check receiver adapted to be supported in front of said adding machine having lateral standards, a transverse printing roll mounted between the standards, an opposed idler roll mounted between the standards, downwardly convergent guide plates mounted in the standards above the printing and idler rolls, an inwardly-directed guide plate mounted between the standards beneath the guide rolls, mechanism for rotating said printing roll, and means detachably connecting the actuating mechanism of the printing roll with the actuating mechanism of the adding machine.

7. In a printing attachment to adding machines, a check receiver adapted to be supported in front of said adding machine but rigidly connected therewith, opposed printing and idler rolls mounted in the upper end of said receiver, mechanism for rotating the printing roll, a connecting rod attached to said mechanism, and a crank arm to which said connecting rod is pivoted, said crank arm having a hub adapted to be applied over the actuating shaft of the adding machine and rigidly attached thereto, and said hub having divergently-extending arms having projecting portions adapted, one or the other, to engage with said connecting rod to force it in one or the other direction when the actuating shaft of the adding machine has been turned to bring one or the other arm into contact with the connecting rod.

8. The combination of a computing machine including a frame and operating mechanism, with a canceling attachment includ-

ing a frame and operating mechanism, and detachable means for operatively connecting the mechanisms together, the attachment frame forming a support on which the entire computing machine removably rests.

9. The combination with computing mechanism, including an operating handle, of a check holding basket associated with said computing mechanism, rotary printing means located at the upper end of the basket, operating connections between the printing means and the handle of the computing mechanism, a rotary check support associated with the printing means and adapted to extend beneath the check prior to the actuation of the printing means and to be moved from beneath the check upon the actuation of the printing means, and operating connections between the printing means and the handle of the adding machine.

10. In a printing attachment to adding machines, check receivers adapted to be attached to said adding machine and open at its upper end, opposed rolls mounted transversely in the upper open end of the receiver, one of which is a printing roll, a rotary check support associated with the printing roll and adapted in one position of the roll to project beneath the check and in other positions of the roll to be removed from beneath the check, means for rotating said printing roll, and means connecting the actuating mechanism of the printing roll with the actuating mechanism of the adding machine.

11. The combination with a check holding basket, of a funnel located above the same, a shaft arranged between the basket and funnel, a printing device mounted on the shaft, feed rolls also mounted on the shaft, supporting pins carried by the shaft and adapted when the shaft is in position to support a check, computing mechanism, an actuating handle for the computing mechanism, and means connected with the handle for rotating the shaft.

12. The combination with a computing machine having an actuating handle at one side of the same, of a support located at one end of the machine, a check receiving basket located in the support, a check receiving funnel arranged above the basket, a rotary shaft journaled on the support between the basket and funnel, an idler shaft located alongside the first mentioned shaft, feed pressure rollers mounted on the shafts, a printing device mounted on one of the shafts, check-supporting fingers carried by one of the shafts, and actuating connections between the handle and one of said shafts.

13. The combination with computing mechanism including a movable part, of printing mechanism associated with the same, and comprising an actuating member and operatively connected with the said

part, of a plurality of interchangeable printing devices arranged on the said member and the active one being movable into and out of a position to be operated by the actuating member, and means for holding the other device in inoperative position.

14. The combination with computing mechanism including a movable part, of printing mechanism associated therewith and having an actuating shaft operatively connected with the said part, an element rotatable with the shaft, and a plurality of rotatable printing devices movable on the shaft into and out of engagement with the element.

15. The combination with computing mechanism including a movable part, of printing mechanism associated therewith and having an actuating member and operatively connected with the said part, a plurality of printing devices movable into and out of a position to be operated by the actuating member, and means for holding the devices against movement when out of coaction with said actuating member.

16. The combination with computing mechanism including a movable part, of printing mechanism associated therewith and comprising an actuating shaft operatively connected with the said part, an element rotatable with the shaft, a plurality of rotatable printing devices movable on the shaft into and out of engagement with the element, and means for holding the devices against movement when out of coaction with said element.

17. The combination with computing mechanism including a movable part, of printing mechanism associated therewith, and comprising an actuating shaft having a key and operatively connected with the said part, a plurality of printing devices slidably mounted on the shaft and having keyways, said devices being movable to positions to engage the key and being furthermore provided with sockets, and stationary pins that engage in the sockets when the printing devices are out of engagement with the key to hold said devices against rotation.

18. The combination with a machine having an actuating handle on one side, of a support located at the front end of the machine, a basket arranged in the support, a funnel located above the basket, an actuating shaft journaled in the support between the funnel and basket, said shaft having feed rolls, and supporting fingers and being also provided with a key, a plurality of printing devices slidably mounted on the shaft and movable into and out of engagement with the key, means for holding the printing devices against rotation with the shaft when out of engagement with the key, and operating connections between the shaft and the handle of the said machine.

19. The combination with computing

means having an actuating handle on one side, of a support located at the front end of the machine, a check receiver arranged on the support, a transverse shaft journaled in the support at the upper end of the basket, feed rolls carried on said shaft, an opposed transverse shaft, a key projecting therefrom, a plurality of printing rolls slidably mounted on the shaft and movable into and out of engagement with the key, each of which rolls having a recess therein, opposed fixed pins adapted to engage in said recesses when one or the other roll is moved out of engagement with the key on said shaft, and operating connections between the shaft and the handle of the adding machine.

20. An adding machine including an actuating handle, in combination with a printing attachment therefor, comprising lateral supports adapted to be supported in front of said adding machine, a check receiver open at its upper end and supported between said standards, transverse bars connecting the upper ends of said standards, idler rolls mounted on one of said bars, a transverse rotating shaft mounted in the upper end of said standards, opposed printing rolls shiftably mounted on the shaft and adapted to engage, one or the other, with a key projecting from said shaft, an inking device with which one or the other printing roll is adapted to be brought into contact, and means projecting from one of said transverse bars adapted to engage with the printing roll which is out of engagement with the key on the shaft, a crank for rotating said shaft, a connecting rod, and means adapted to be attached to the actuating handle of the adding machine engaging with said connecting rod.

21. The combination with computing mechanism having an oscillatory actuating handle, of rotatable printing mechanism, a device having a crank connection with the printing mechanism and with the handle, and means movable with the handle and engaging the device to swing the same in opposite directions and carry the former past its dead centers on the oscillation of the handle.

22. The combination with computing mechanism having an oscillatory actuating handle, of a rotary printing mechanism, a crank carried by the printing mechanism, a crank connected to the handle, a link connecting the cranks, arms movable with the handle and extending on opposite sides of the link, and lugs carried by the arms and engaging the opposite edges of the link to swing the same in opposite directions and carry the crank and the printing mechanism past its dead centers on the oscillation of the handle.

23. The combination with computing mechanism including an actuating rock

shaft and a handle crank secured thereto, of printing mechanism, a crank, a link connected therewith, means for actuating the link including a hub through which the rock shaft passes, and means for securing the hub and rock shaft against relative rotation.

24. A printing attachment to adding machines adapted to be supported detachably therewith having a rotary printing mechanism, a crank for rotating the printing mechanism, a connecting rod attachable to the rock shaft and handle crank of said adding machine, said means including a hub through which the rock shaft passes, an arm carried by the hub and located alongside the handle crank, a clip for detachably securing the two together, and an arm projecting from the hub to which the connecting rod is pivoted.

25. The combination with computing mechanism including an actuating rock shaft, and a handle crank secured thereto, of rotary printing mechanism having a crank, a hub through which the rock shaft passes, said hub having a crank, a link connection between the crank of the printing mechanism and the crank of the hub, an arm carried by the hub and located alongside the handle crank, means for detachably securing the two together, other arms secured to the hub and having lugs disposed to engage the link upon the oscillation of the handle crank.

26. A printing attachment for adding machines, including a base having sockets to receive the feet of an adding machine, movable printing mechanism mounted on said base, actuating means for the printing mechanism, and means for attaching said actuating means to the operating handle of an adding machine.

27. A printing attachment for adding machines, including a base having means for positioning an adding machine thereon, an upstanding support located at the front end of the base, check printing mechanism movably mounted on the upstanding support, operating means for the printing mechanism, and means for attaching the actuating mechanism to the operating device of an adding machine positioned on the base.

28. A printing attachment for adding machines, including an open frame having upstanding lugs provided with sockets to receive the feet of an adding machine, a support arranged at one end of the base, printing mechanism mounted on the support, actuating means for the printing mechanism, and means for connecting the actuating means to the handle of an adding machine placed on the base.

29. A printing attachment for adding machines, including an angular frame having upstanding lugs provided with sockets to

receive the feet of an adding machine, standards mounted at the front end of the frame, a basket supported between the standards, a funnel located above the basket, rotary printing means journaled on the standards between the funnel and basket, actuating mechanism for the printing means, and means for attaching said actuating mechanism to the handle of an adding machine placed on the frame.

30. The combination with a computing machine having an oscillatory member, of an attachment therefor having a rotary member, a crank connected with the member, a link connected with the crank and oscillatory member, and means for successively engaging the link to assist the crank past its dead centers.

31. The combination with a computing machine having an oscillatory member, of an attachment therefor having a rotary member, a crank connected with the member, an extensible link connected with the crank and oscillatory member, and means for successively engaging opposite sides of the link to assist the crank past its dead centers.

32. The combination with a computing machine including a movable element, of an attachment including a rotary element, a crank connected with the rotary element, a link having longitudinal movement and connected with the said movable element and crank for turning the latter, and members movable simultaneously with the first-mentioned element for successively operating to assist the crank past its dead centers.

33. The combination of a computing machine including a shaft and an operating arm secured thereto, an attachment supported independently of the machine and in cooperative relation thereto, a printing mechanism included in the attachment, an element fulcrumed on the shaft and secured to the arm, and a link connected with the said mechanism and adapted to be detached from the said element when the machine is removed from the attachment.

34. The combination of a structure including a base frame and an upright frame, and a printing mechanism carried by the upright frame, with a computing machine removably mounted on the base frame and behind the upright frame and including operating mechanism, and means for connecting the said mechanisms together whereby one is operated by the other.

35. The combination of a supporting frame, a rotary shaft mounted thereon, a platen roll, separate printing rolls mounted to slide longitudinally of the shaft into and out of cooperative relation with the platen roll, and means for locking one of the printing rolls in inoperative position while the other printing roll is in operative position.

36. The combination of a frame, a rotary

shaft mounted thereon, a second rotary shaft disposed parallel with the first, means for yieldingly urging the shafts together, frictional means for driving one shaft by the other, a platen roll on the second shaft, and a plurality of printing rolls carried by the first-mentioned shaft and independently movable into coöperative relation with the platen roll.

10 37. The combination of a supporting structure, a pair of rotary shafts, means for driving one shaft by the other, a platen roll on one shaft, a plurality of printing rolls slidable longitudinally on the other shaft,

and locking devices for holding either printing roll in inoperative position, said devices being so related to the platen roll that movement of the printing rolls together in either direction will lock one of the printing rolls while the other is disposed in coöperative relation with the platen roll. 15 20

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

GEORGE A. ARMSTRONG.

Witnesses:

GEORGE B. SMITH,
LENA J. BUEHLER.