

No. 713,272.

Patented Nov. 11, 1902.

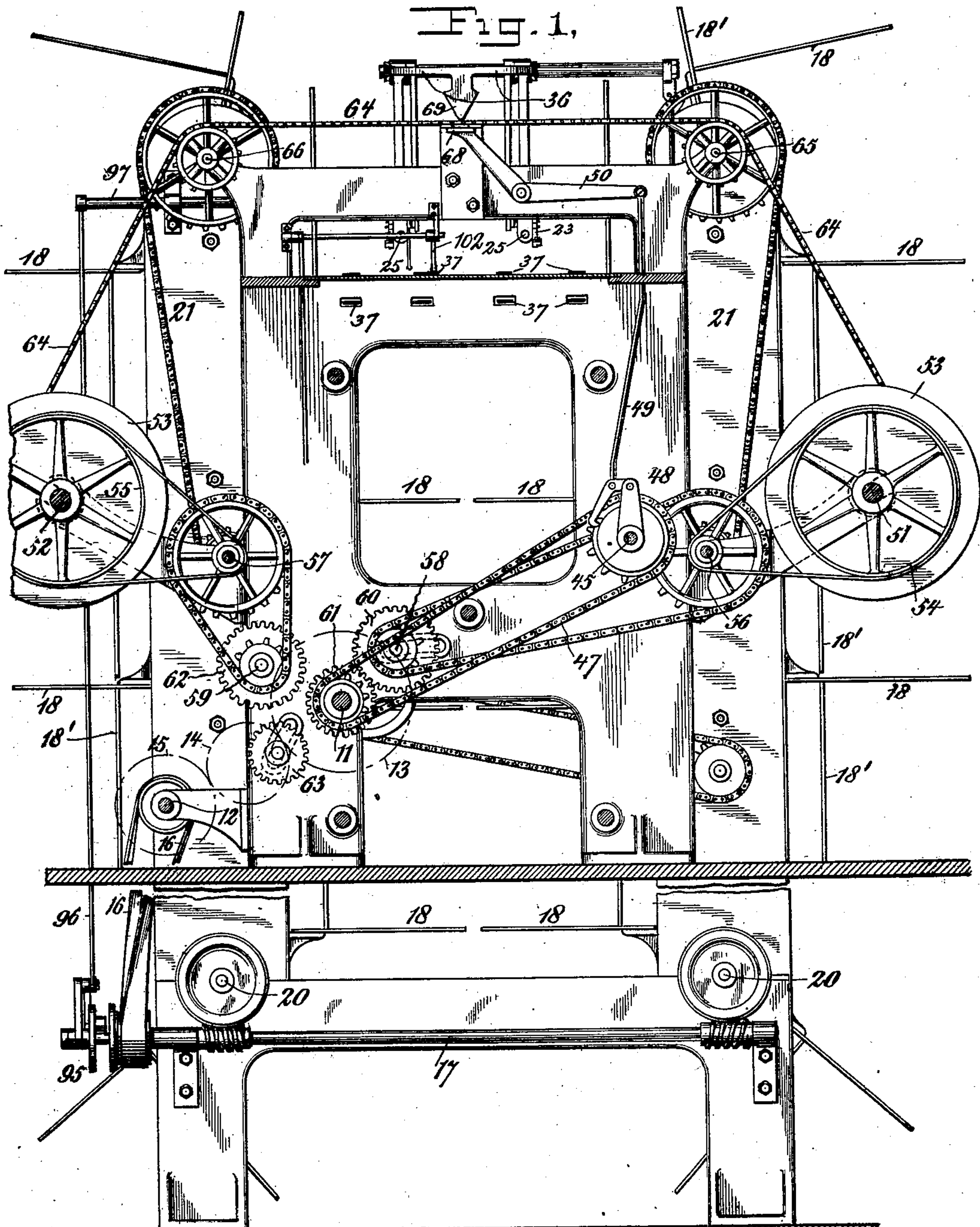
L. A. AGNEW.

MACHINE FOR ADDRESSING AND ASSORTING NEWSPAPERS, MAGAZINES, &c..

(Application filed Aug. 18, 1898. Renewed May 1, 1902.)

(No Model.)

6 Sheets—Sheet 1.



WITNESSES:

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ATTORNEYS

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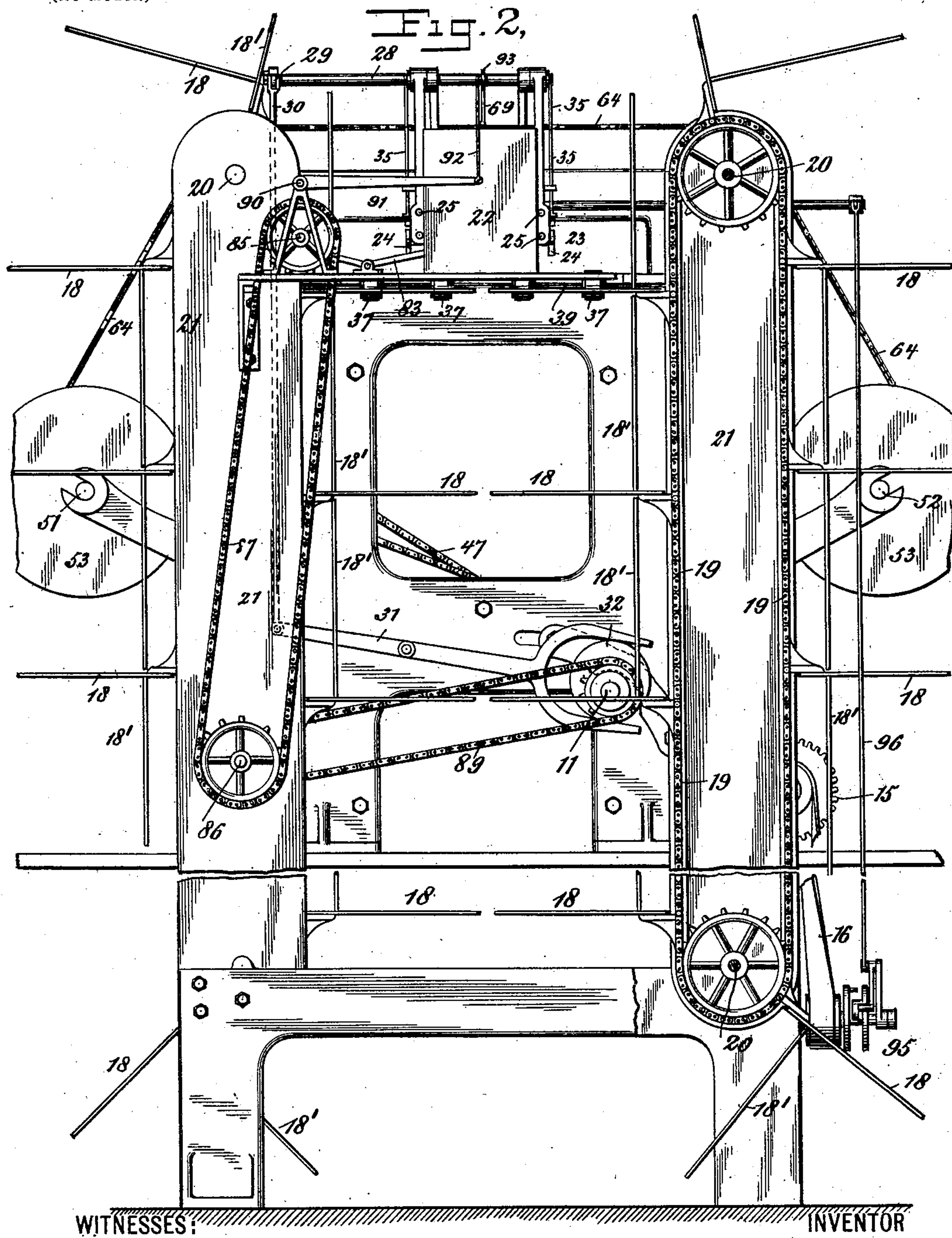
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(Application filed Aug. 18, 1898. Renewed May 1, 1902.)

(No Model.)

6 Sheets—Sheet 2.



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No. 713,272.

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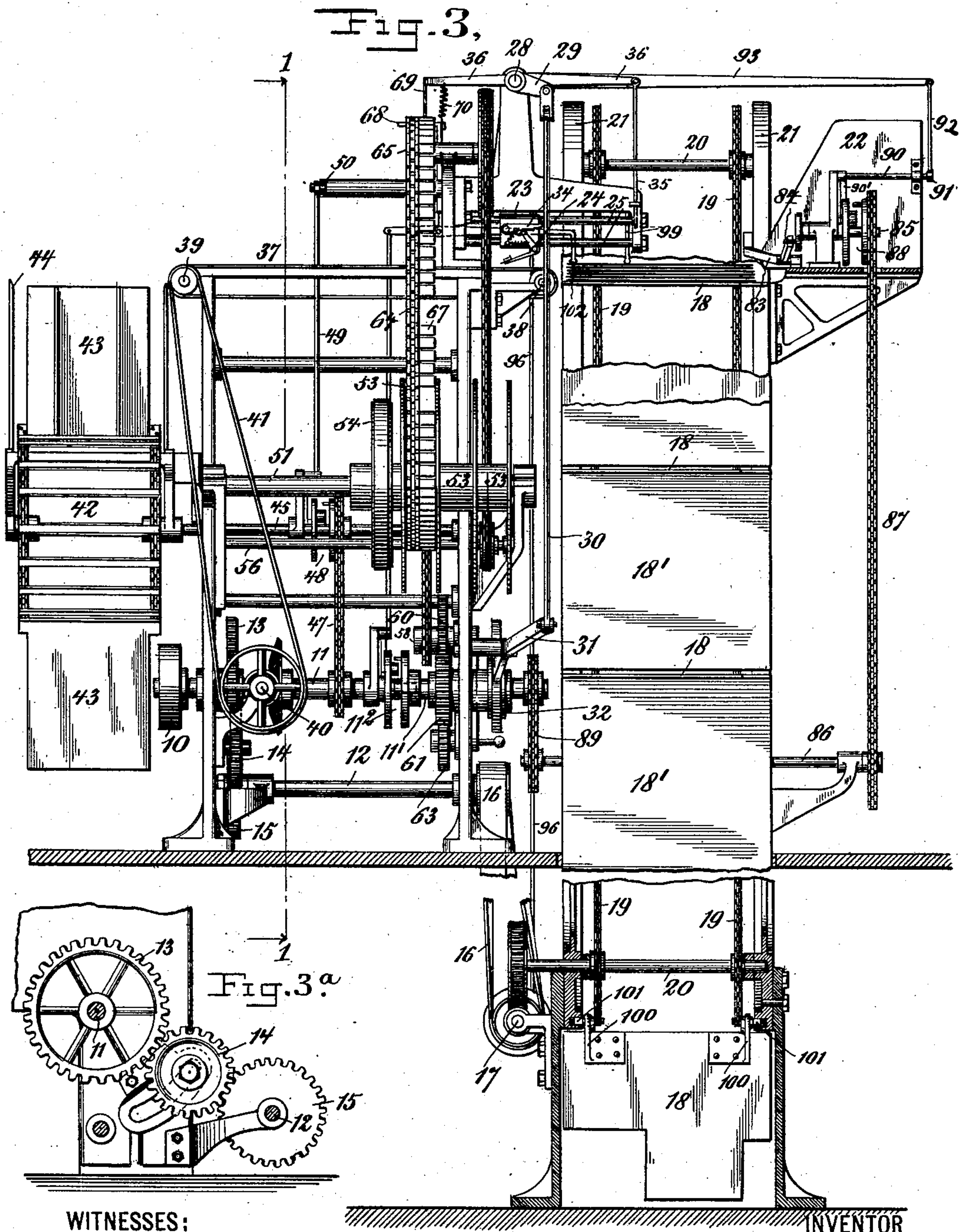
L. A. AGNEW.

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(Application filed Aug. 18, 1898. Renewed May 1, 1902.)

(No Model.)

6 Sheets—Sheet 3.



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Fig. 4.

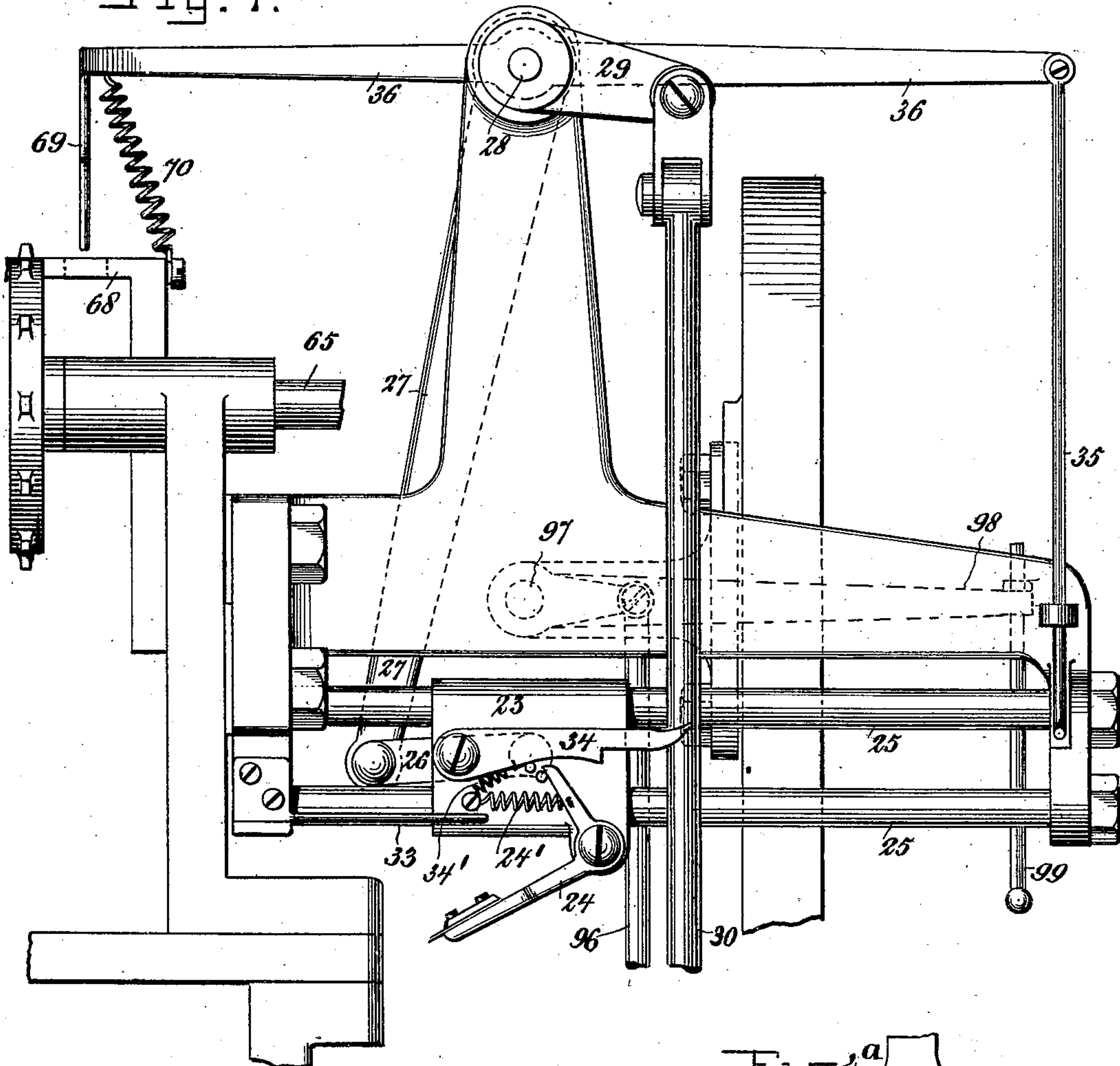


Fig. 4^b

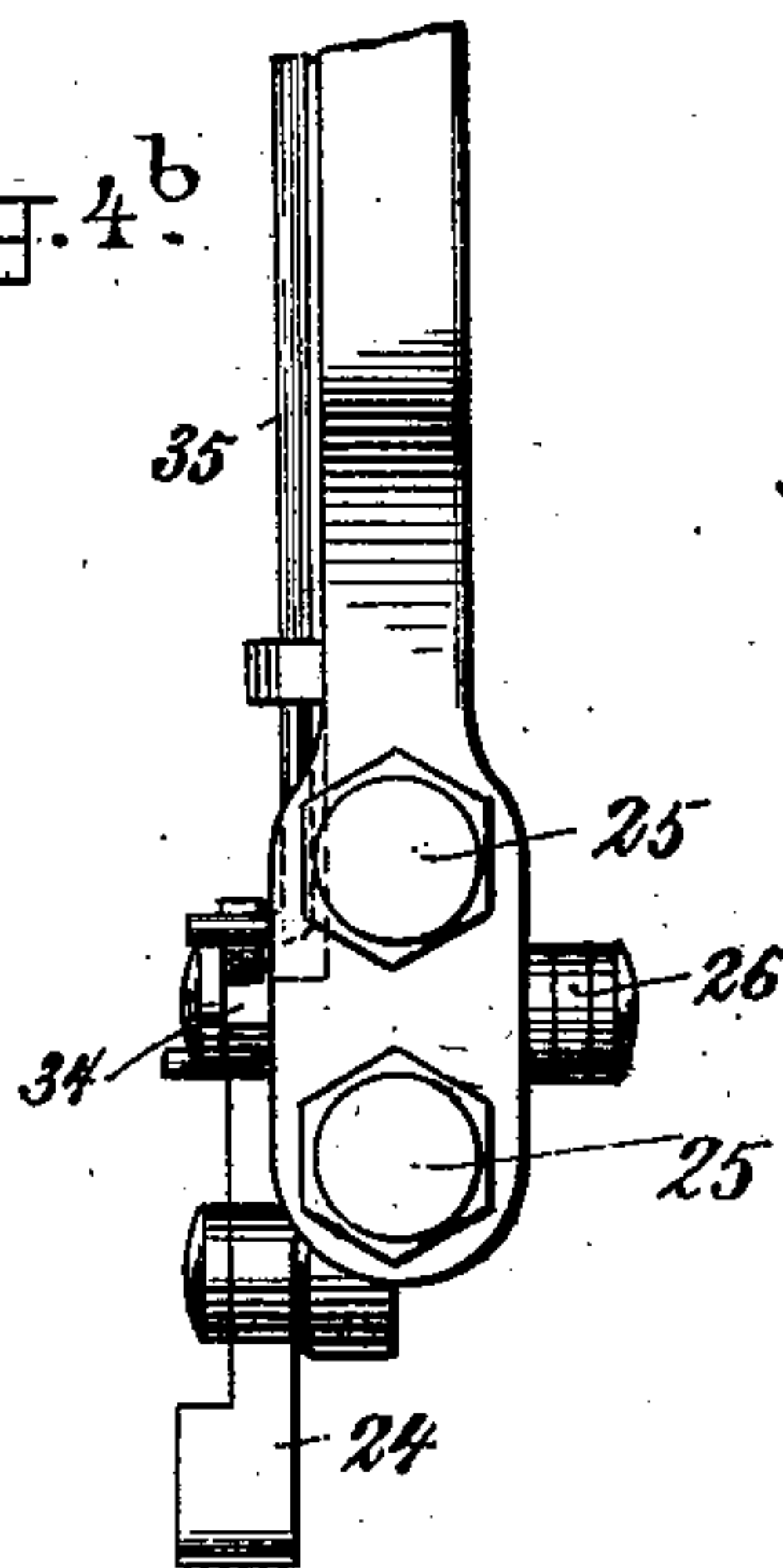
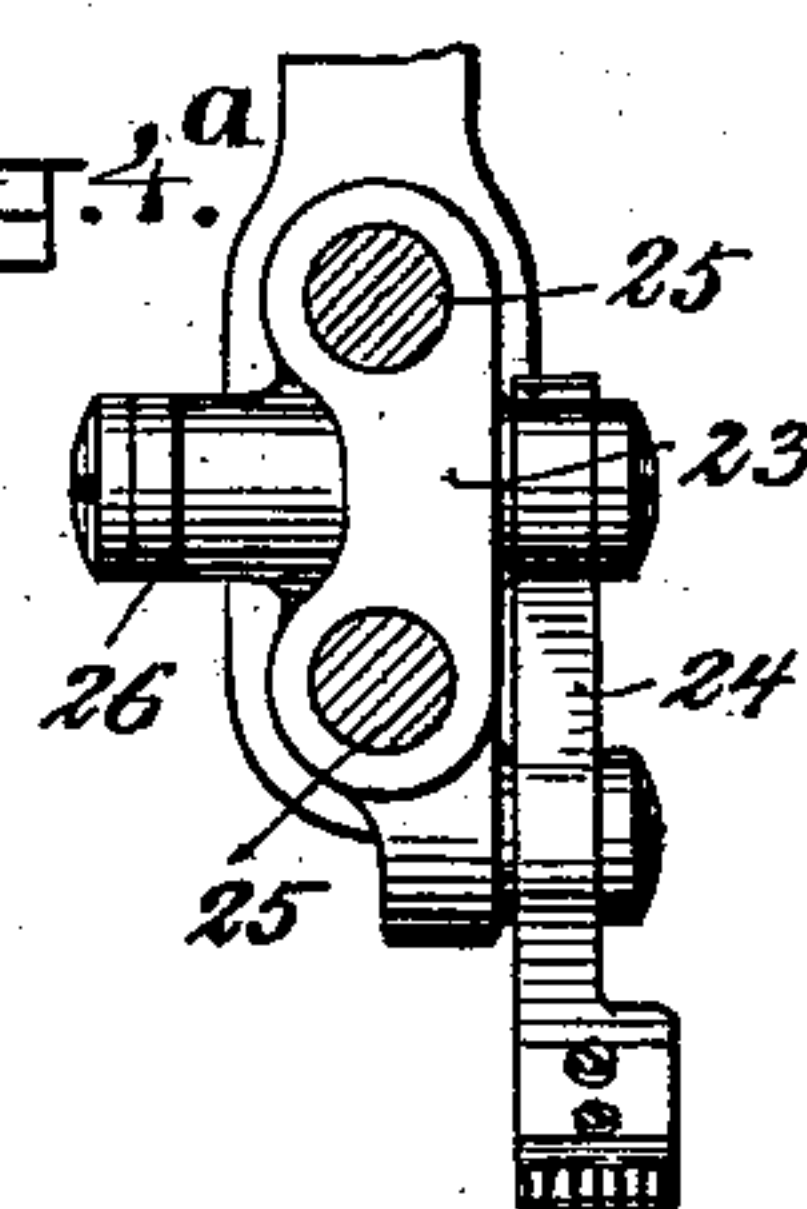


Fig. 4^a



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Fig. 5,

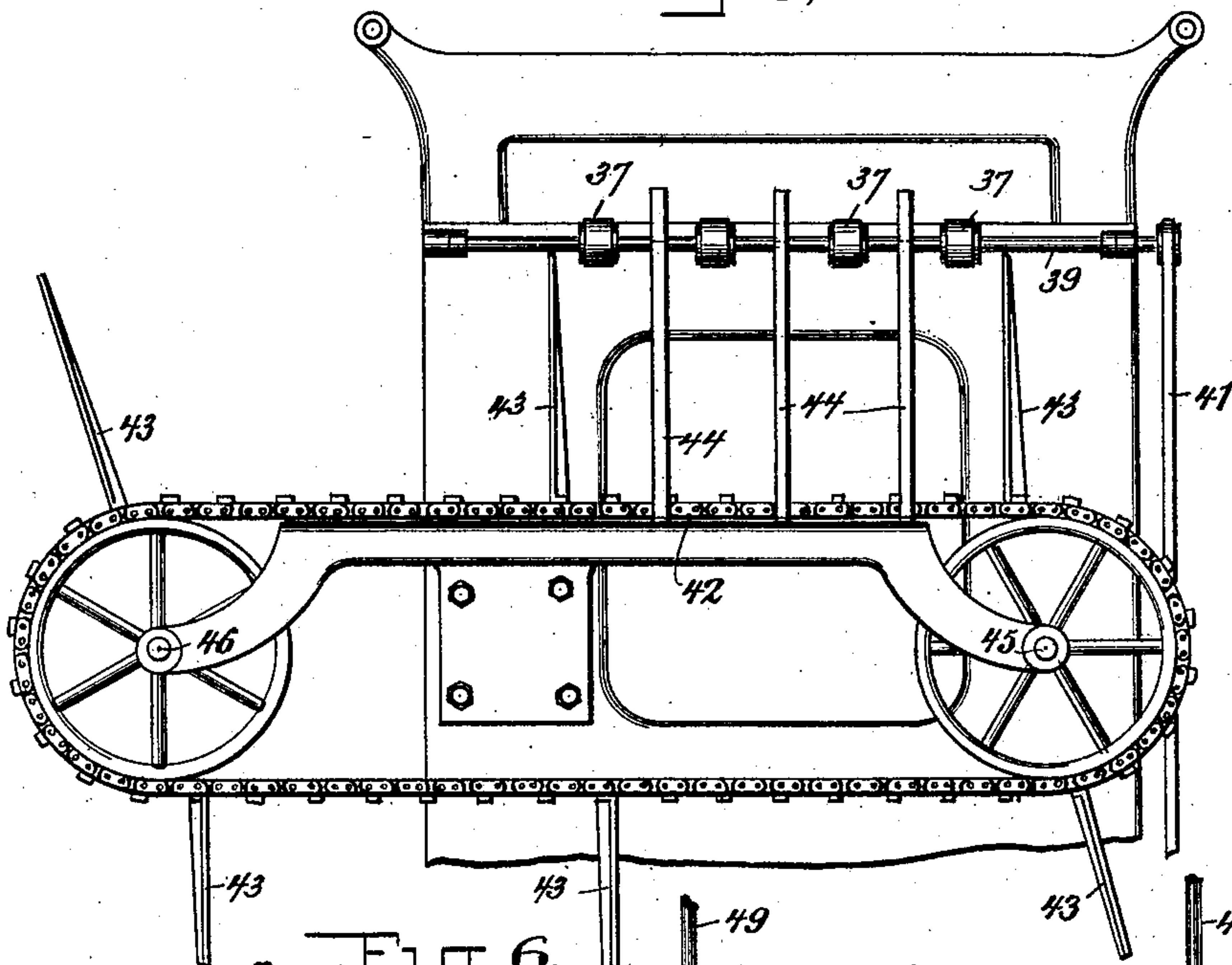


Fig. 6,

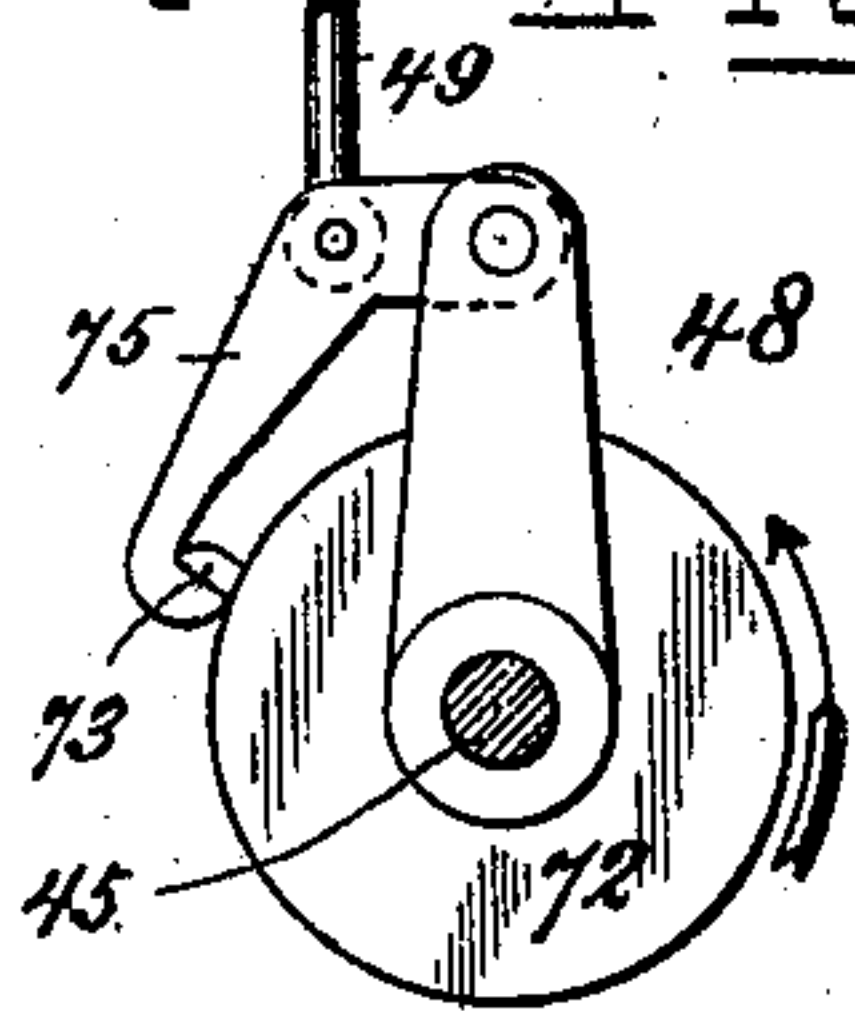


Fig. 7,

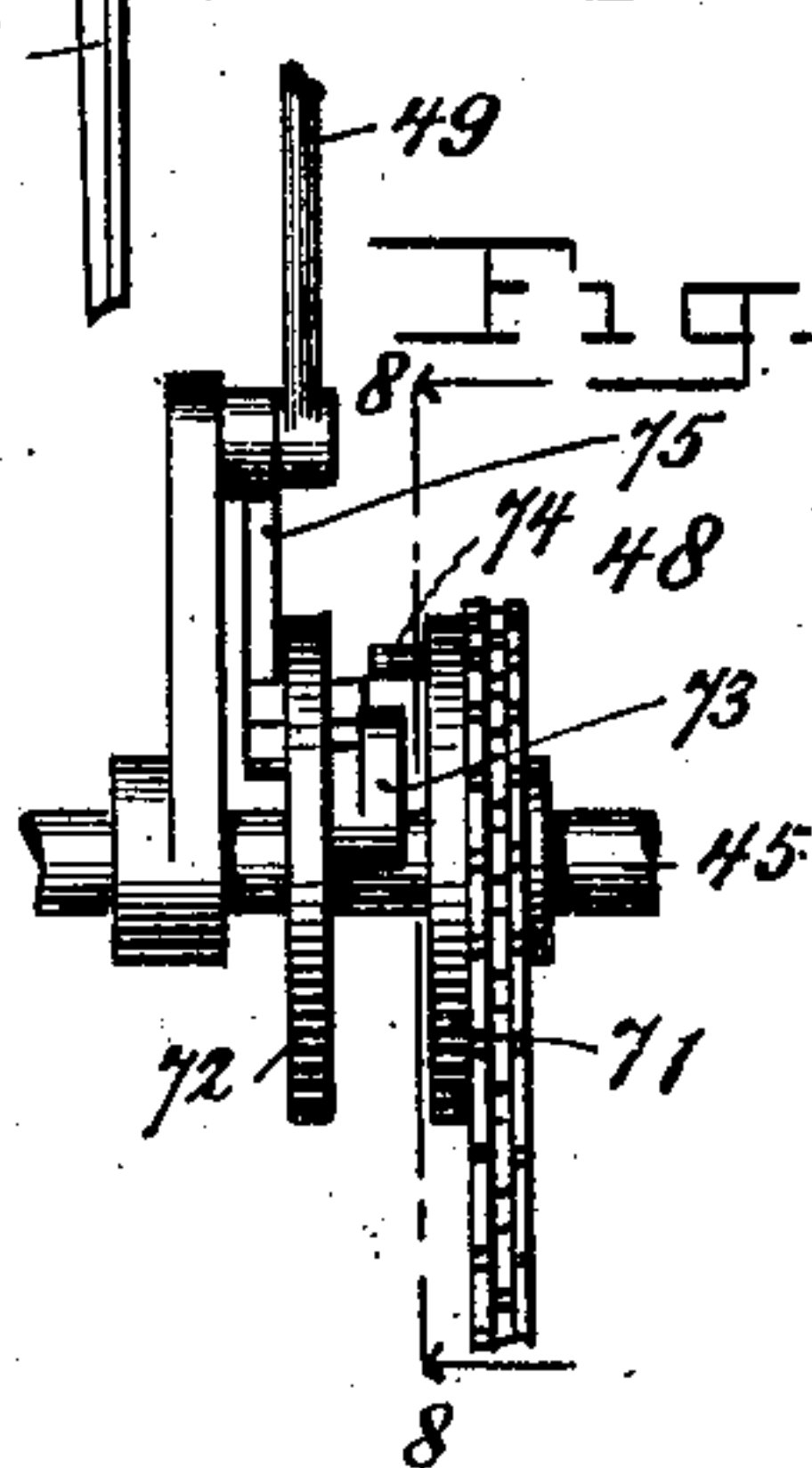


Fig. 8,

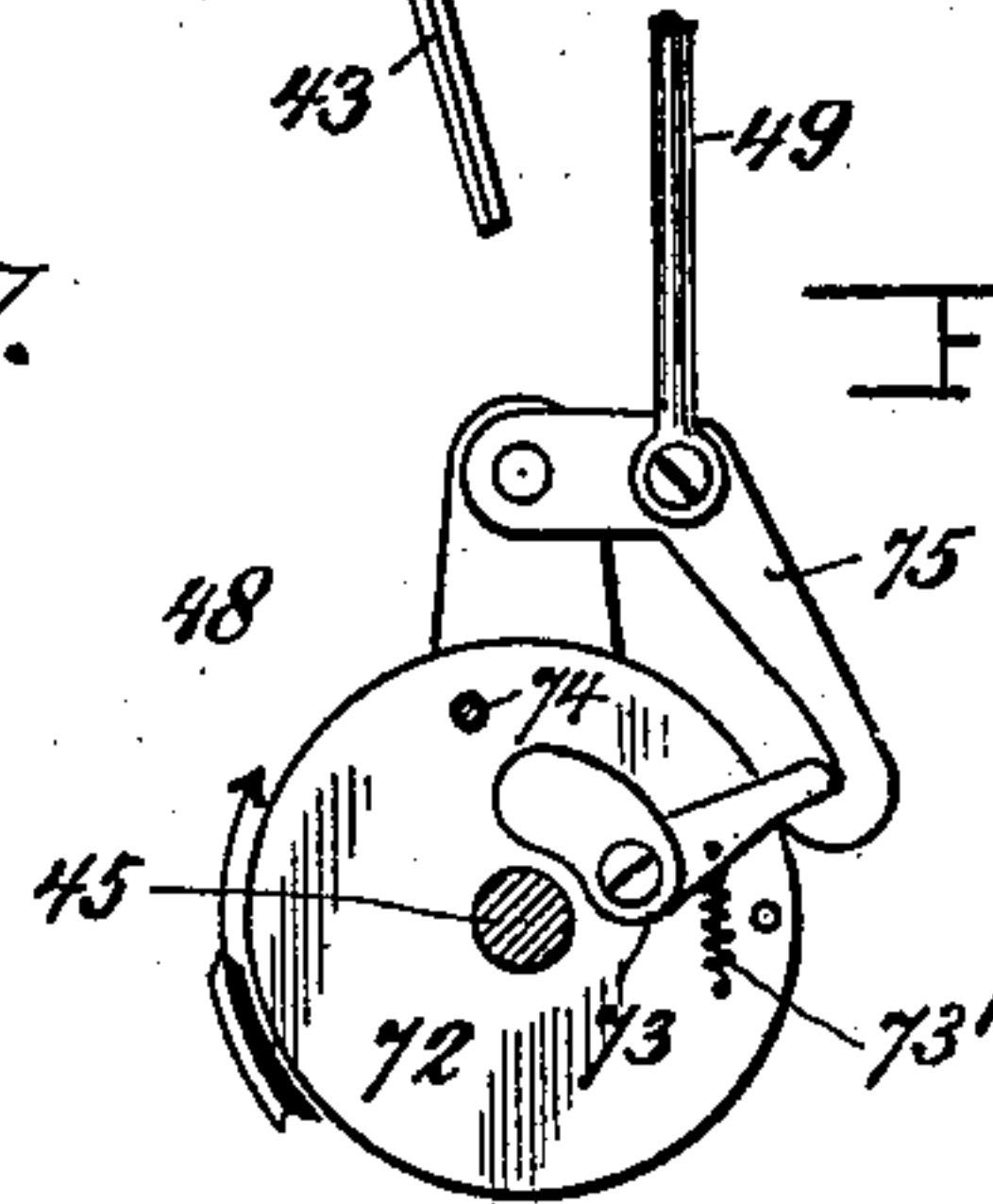


Fig. 9,

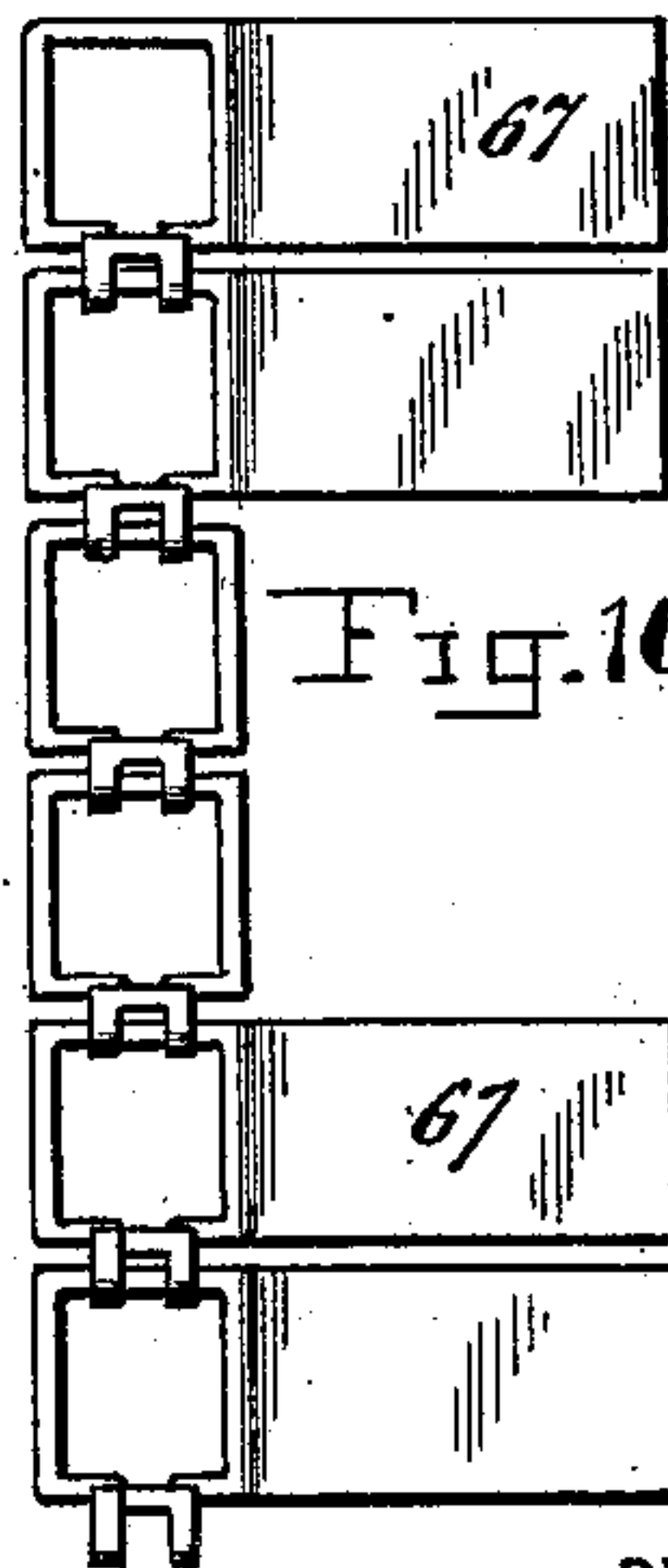
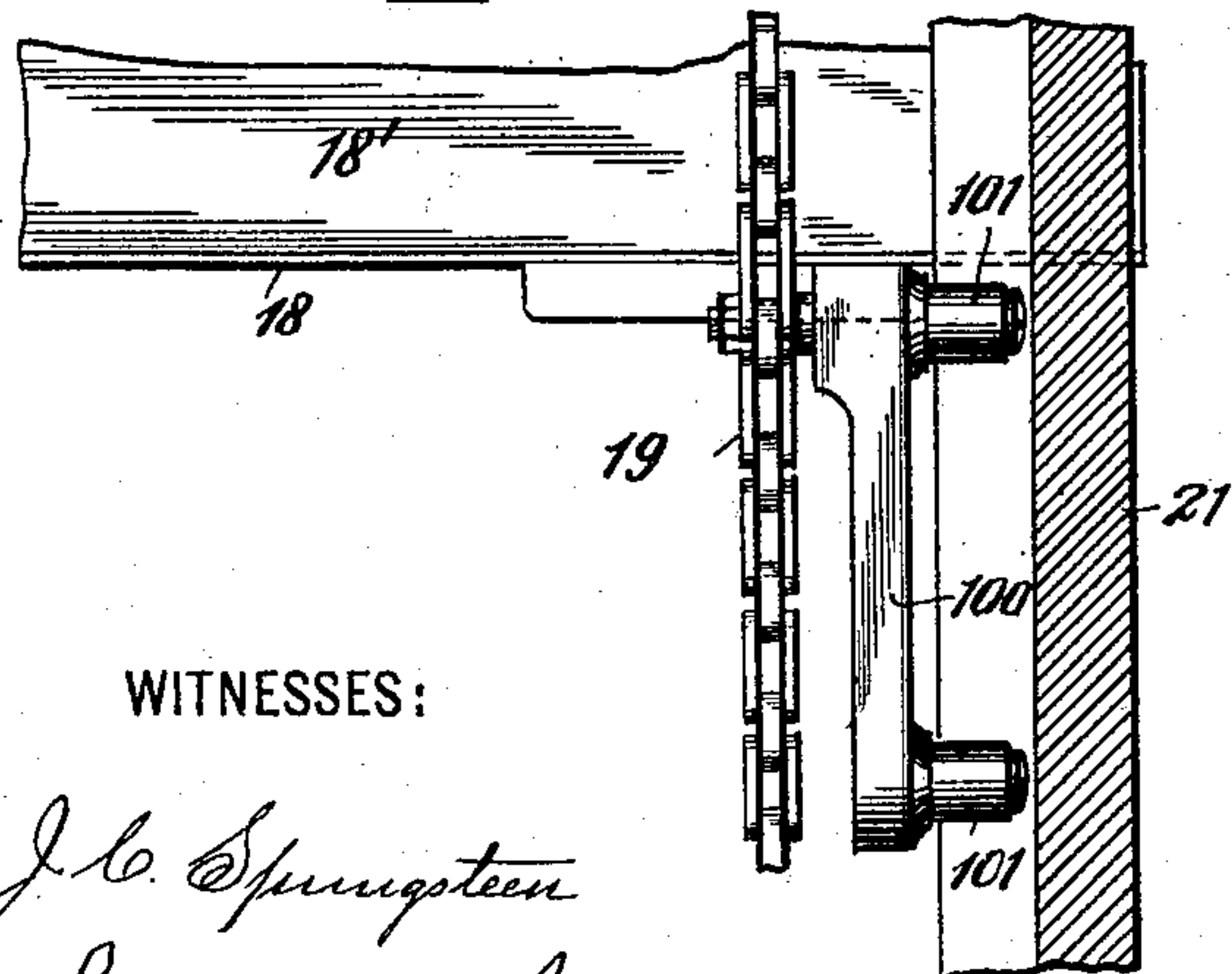


Fig. 11,



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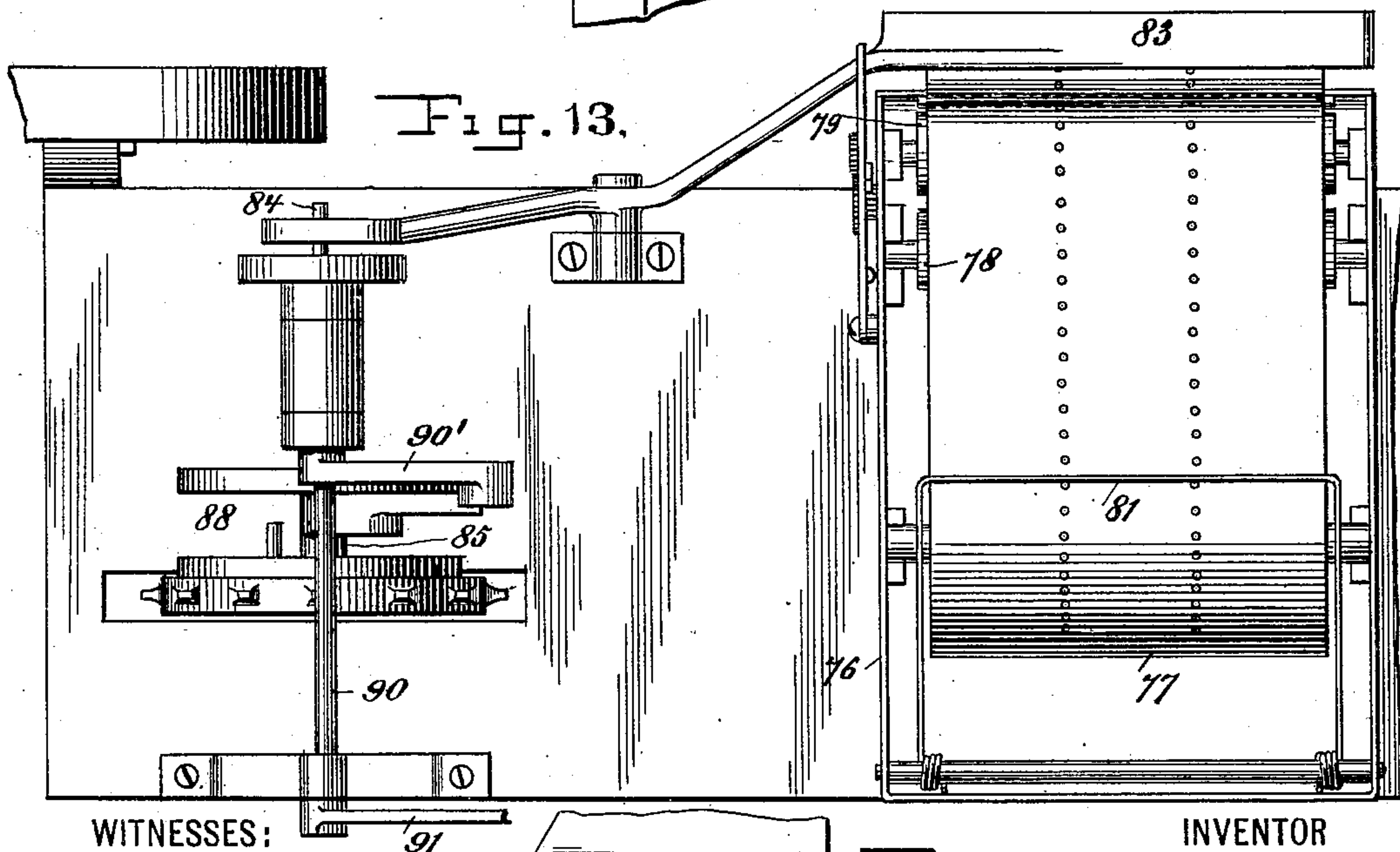
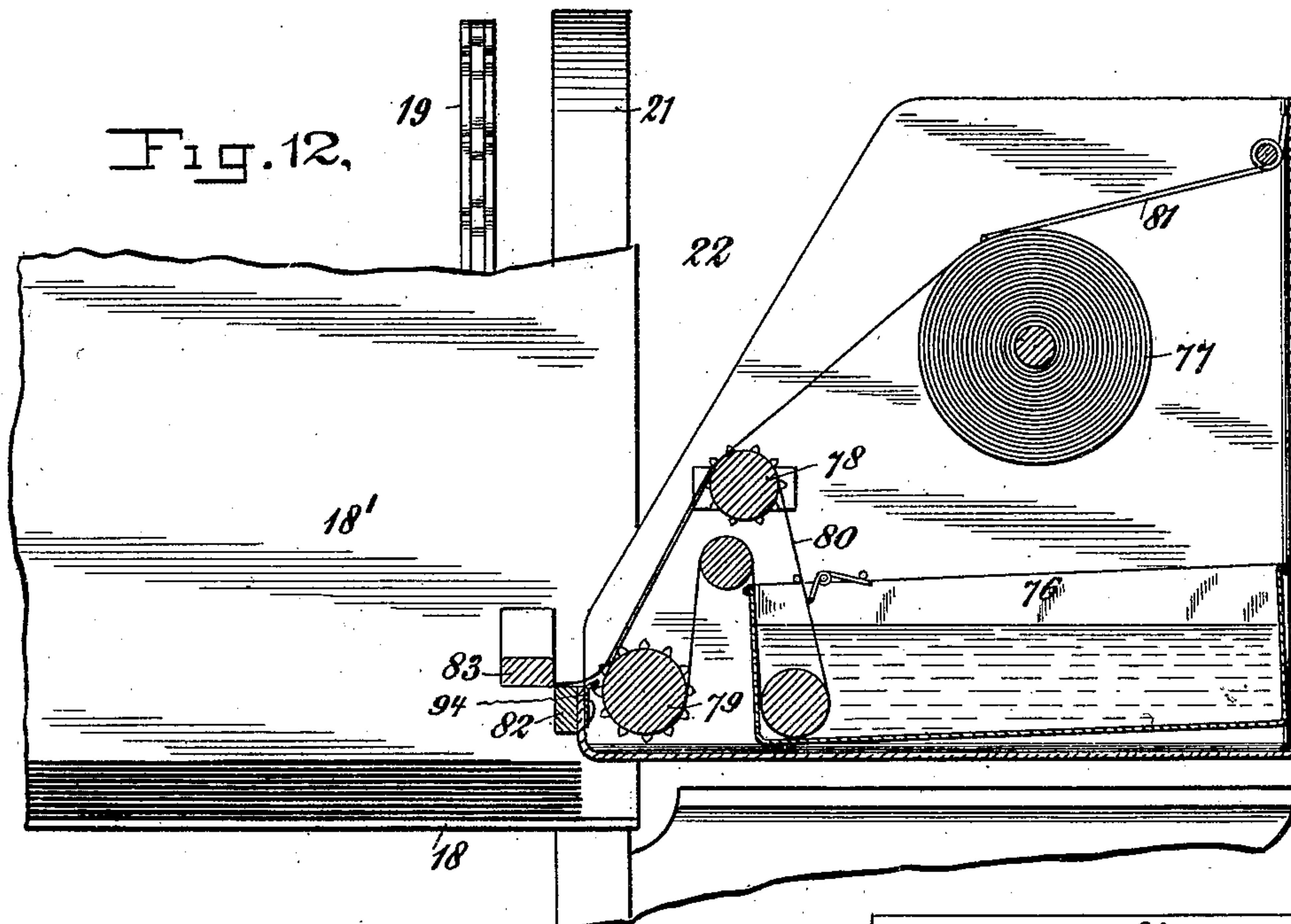
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(Application filed Aug. 18, 1898. Renewed May 1, 1902.)

(No Model.)

6 Sheets—Sheet 6.



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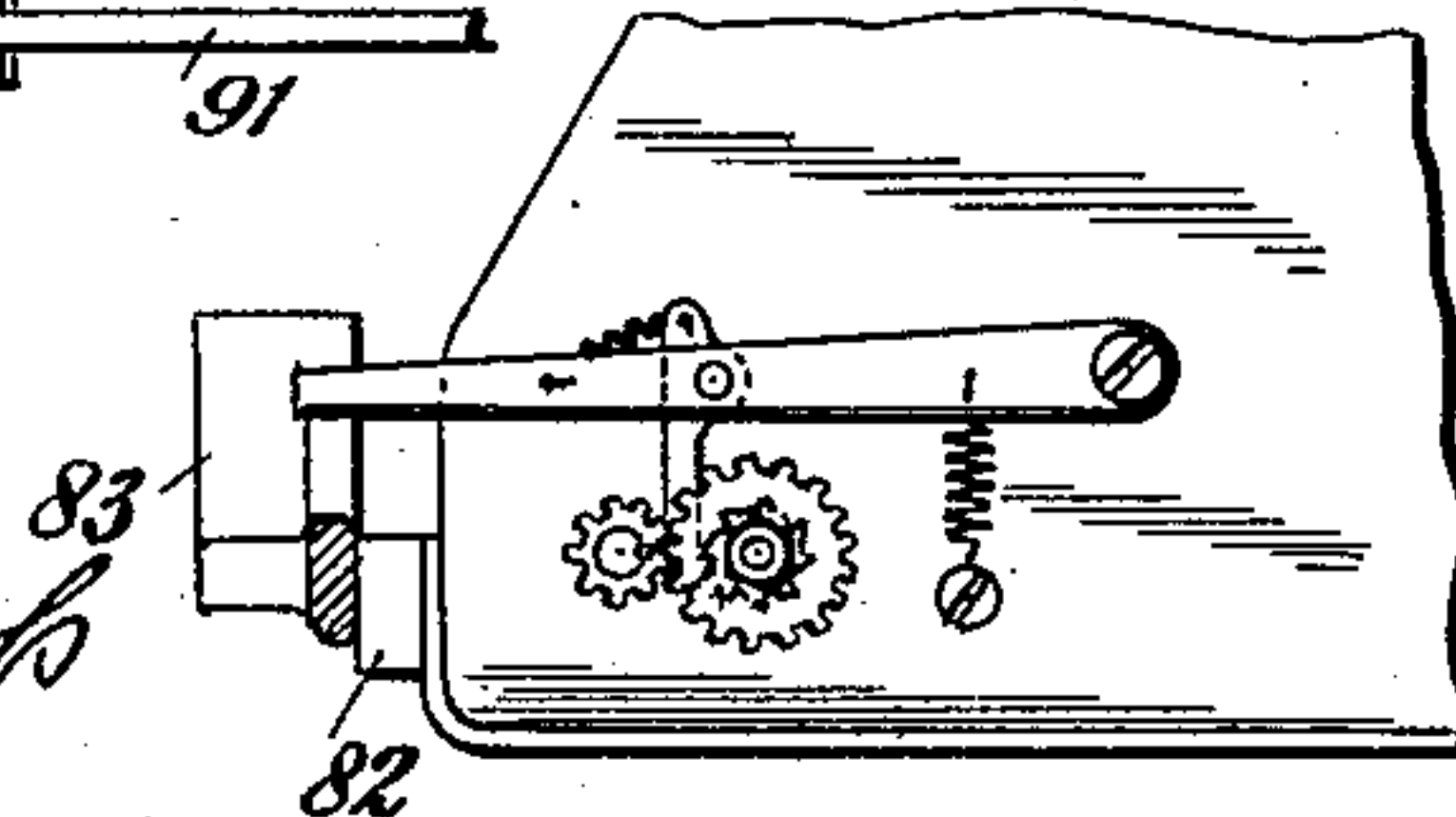


Fig. 14, *See A. Agnew*

BY *E. M. Marble & Son*
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UNITED STATES PATENT OFFICE.

LEE A. AGNEW, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENTS,
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MACHINE FOR ADDRESSING AND ASSORTING NEWSPAPERS, MAGAZINES, &c.

SPECIFICATION forming part of Letters Patent No. 713,272, dated November 11, 1902.

Application filed August 18, 1898. Renewed May 1, 1902. Serial No. 105,546. (No model.)

To all whom it may concern:

Be it known that I, LEE A. AGNEW, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a new and useful Machine for Addressing and Assorting Newspapers, Magazines, and other Articles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to automatic machines for addressing newspapers, magazines, and the like and for assorting them into lots to facilitate their distribution, each lot usually containing the papers, magazines, or other articles which are to be sent to a particular locality.

In preparing newspapers, magazines, and the like for shipment by mail to subscribers it is the common practice after addressing the several copies to the different subscribers to gather all of the copies addressed to a single locality into a bundle, which is shipped as a single package. The addressing is usually accomplished by affixing to the several copies of the paper or magazine small labels, each bearing the name and address of a subscriber. The affixing of these labels is usually done by the aid of hand-operated apparatus, and the collection or assorting of the addressed papers or magazines into lots corresponding to the localities to which they are addressed, all of the papers or magazines addressed to a particular locality being placed in one or more lots preparatory to wrapping the same, so as to form one or more bundles or packages, is done by hand.

The objects of my invention are, first, to assort newspapers, magazines, and the like into lots by automatic machinery, the articles to be assorted being delivered to the machine in quantities; second, to address the articles to be assorted automatically; third, to improve and simplify automatic addressing machinery, and, fourth, to make the whole machine as simple and compact as possible, not liable to derangement, and automatic in its operation. These objects are attained in the machine herein described, and illustrated in

the drawings which accompany and form a part of this specification.

My invention consists in the combination, with mechanism for receiving in quantities from a suitable source of supply newspapers, magazines, and the like and feeding the same off separately, of assorting mechanism for separating the articles so fed forward into lots of predetermined and variable numbers and a stop-motion device for arresting the operation of the assorting mechanism when no articles are fed forward; in the construction of the assorting mechanism; in the combination, with feeding and assorting mechanisms, of an addressing mechanism and suitable stop-motion devices for arresting the operation of the assorting and addressing mechanisms when no articles are fed forward; in the combination, with addressing, feeding, and assorting mechanisms, of a delivering mechanism or conveyer which receives the articles of each lot and separates them from the articles of the next succeeding lot; in the combination, with such conveyer and addresser, of a stop-motion device controlling the operation of the addresser, and in many features of combination, construction, and arrangement of the parts constituting the machine.

In the accompanying drawings, in which the same reference-numerals refer to the same or corresponding parts, Figure 1 is a front elevation of the machine with the delivering-conveyer removed, the view being a section on the line 1 1 of Fig. 3. Fig. 2 is a rear elevation of the machine. Fig. 3 is a side elevation of the machine looking from the right of Fig. 1. Fig. 3^a is an elevation of the gears by which the receiving conveyer or elevator is driven from the main driving-shaft and by varying the size of one or more of which the speed of the elevator may be adjusted. Fig. 4 is a detail elevation, upon a larger scale than Figs. 1, 2, and 3, of the feeding mechanism by which the papers, magazines, or other articles are removed from the receiving-conveyer. Fig. 4^a is a detail front elevation of one of the feed-fingers and its carriage. Fig. 4^b is a detail view looking from the right of Fig. 4 and showing one of the feed-fingers, its latch, and the tripper by which the feed-finger is re-

leased from its latch. Fig. 5 is a detail elevation looking from the left of Fig. 3 of the delivering-conveyer and connected parts detached from the rest of the machine. Figs. 6, 7, and 8 are detail views of a "hit-and-miss" clutch which controls the operation of the delivering-conveyer and which represents also in substance other clutches employed in the machine, Fig. 6 being a front elevation of the clutch, Fig. 7 a side elevation, and Fig. 8 a section on the line 8 8 of Fig. 7. Fig. 9 is a detail view showing one of the brackets which connect the shelves of the receiving conveyer or elevator to its sprocket-chains, showing particularly the guide-rollers thereon. Fig. 10 is a detail plan view of a portion of the controlling-chain. Fig. 11 is a side view of a portion of said chain, showing the form of the links and how they may be detached. Fig. 12 is a vertical section of the addressing device. Fig. 13 is a plan view of the addressing device, and Fig. 14 is a detail view showing the ratchet mechanism by which the feeding-spool of the addressing device is revolved.

In addressing and assorting papers, magazines, and the like by the machine herein described the articles to be addressed and assorted are placed in quantities upon the shelves of a receiving conveyer or elevator and carried upward thereby. At the head of the elevator is an addressing device containing a roll of paper having printed upon it names and addresses of persons to whom the articles are to be sent. At the head of the elevator there is also a feeding mechanism for removing the articles successively from the elevator. As the papers or magazines are carried upward the uppermost copy has affixed to it by the addressing device a portion of the address-strip containing a name and address. The feeding mechanism then removes said paper or magazine from the elevator and carries it to one side, where it falls into a delivering-conveyer.

The names and addresses on the address-strip in the addressing device are grouped together according to localities. The machine is provided with an assorting mechanism, the principal portion of which is a controlling-chain composed of detachable links, the most of which are provided with projecting pallets, with which a tripper-finger may contact. This controlling-chain is unwound from a supply-reel and wound upon a take-up reel during the operation of the machine. Each pallet-link upon it corresponds to a particular address to which one of the papers or magazines are to be sent, and these pallet-links are grouped together in sections corresponding to particular localities, each section corresponding to one of the localities of the address-strip and having as many pallets as there are addresses for that locality on the address-strip. Each section of pallet-links is separated from the other sections of pallet-links by one or more links having no pallets.

A tripper-finger is so located as to press against the pallets of the chain as they pass it successively. It controls the action of the addressing device and the feeding mechanism which removes the papers or magazines successively from the receiving-elevator and also controls the delivery-conveyer, permitting the addressing device and feeding mechanism to operate so long as a pallet is opposite it and at such times holding the delivery-conveyer stationary, so that the papers or magazines fed forward by the feeding mechanism accumulate in a pile on the delivery-conveyer; but when a link of the controlling-chain having no pallet reaches the tripper-finger the finger passes through the gap in the line of pallets and in so doing operates tripping or stop-motion devices, which set the delivery-conveyer in motion and stop the addressing device and the feeding of articles from the receiving-elevator. The motion of the delivery-conveyer continues until a new section of it has been moved into position to receive papers or magazines, when the first pallet of another pallet-section of the controlling-chain encounters the tripper-finger and moves it back, so stopping the delivering conveyer and starting the addressing device and the feeding of papers or magazines from the receiving-elevator.

Referring now to the drawings, and at first more particularly to Figs. 1, 2, and 3, 10 is a main driving-pulley adapted to be driven by means of a belt from any suitable source of motive power. It is mounted upon a shaft having two sections 11 and 11', separated by a clutch 11², the purpose of which will be explained hereinafter.

12 is a shaft driven from shaft 11 by a chain of gears 13, 14, and 15. (Shown in dotted lines in Fig. 1.) Gear 14 is mounted upon a movable support, so that the speed of the shaft 12 with respect to that of shaft 11 may be regulated by substituting gears 15 of different sizes. This is shown in the detail view Fig. 3^a. Upon the shaft 12 is a belt-wheel, over which runs a belt 16, which drives a shaft 17, which is the driving-shaft of the receiving conveyer or elevator.

The receiving-elevator consists of two series of platforms 18, each carried by two sprocket-chains 19, which run over sprocket-wheels mounted upon shafts 20, 20, revolvably mounted in uprights 21 of the machine, one of which uprights has been removed in Fig. 2 to show the chains. The two lower shafts 20 are geared to the driving-shaft 17 by worm-gears, the worms of which are of opposite pitch, as shown in Fig. 1, the inner sides of the chains of the two series of platforms running upward. The platforms 18 of the two series are so placed on the sprocket-chains that each platform when moving upward is on the same level with a platform of the other chain and forms therewith a shelf, upon which newspapers, magazines, or other articles to be addressed and assorted may be

placed in quantities. The platforms 18 each have side pieces or guides 18', extending upward when the platforms are moving upward for the purpose of regulating the position of the papers or magazines on the platforms, so that they shall be in proper position to be acted upon by the addressing device and feeding mechanism.

Papers or magazines when placed in piles upon the upwardly-moving shelves are carried upward to the addresser 22, the construction of which will be described hereinafter, which affixes to each paper or magazine a label bearing the name and address of a person to whom a copy of such paper or magazine is to be sent. Each paper or magazine when so addressed is removed immediately from the elevator by a feeding mechanism (shown in detail in Figs. 4, 4^a, and 4^b) and which consists of a carriage 23, carrying a bell-crank lever or feed-finger 24, having points or needles adapted to enter the paper, and so grip the same. The carriage is reciprocated back and forth during the operation of the machine upon guide-rods 25 by a link 26 and an arm 27, connected to a rock-shaft 28, which rock-shaft is vibrated by a lever 29, Fig. 3, link 30, lever 31, Figs. 2 and 3, and eccentric 32 on the main driving-shaft 11. A spring 24', Fig. 4, tends to hold the end of the feed-finger against the papers, and so cause the feed-finger to engage and carry along a paper at each forward movement of the carriage 23. As the carriage 23 nears the end of its forward movement the upper arm of the feed-finger encounters a stop 33, which raises its lower end from the paper and moves its upper arm back until a latch 34 drops down and holds the feed-finger in an elevated position during the return movement of the carriage 23. When said carriage has nearly reached the limit of its return movement, the latch 34 encounters the out-turned end of a tripping-rod 35, depending from a lever 36, loosely mounted upon the shaft 28. The latch is raised thereby, permitting the feed-finger to drop and engage another paper or magazine. A spring 34' tends always to pull the latch 34 down. As shown in Figs. 1 and 2, there are two of these carriages 23 and feed-fingers 24 placed each to one side of the center line. The papers or magazines thus fed forward drop upon a series of moving feed-belts 37, carried by pulleys mounted upon shafts 38 and 39. Shaft 39 is driven from the main driving-shaft 11 by means of a shaft 40, driven by bevel-gears from shaft 11, as shown in Fig. 3, and a belt 41. The papers or magazines when carried forward by the belts 37 and after passing the shaft 39 drop into one of a series of compartments or receptacles upon a conveyer 42, which is the delivering-conveyer hereinbefore referred to. The compartments or receptacles are formed by uprights 43, carried by the conveyer and which divide it into sections.

Stationary side pieces 44, located opposite the point where the papers fall upon the conveyer, prevent the papers from falling off from the conveyer and cause them to pile up thereon. The conveyer is stationary except at certain intervals, as hereinafter explained, during which no papers are fed forward from the receiving-conveyer.

The delivering-conveyer 42 consists of two sprocket-chains passing over sprocket-wheels upon shafts 45 and 46 and connected by cross-pieces. Shaft 45 is driven from the main driving-shaft by a sprocket-chain 47 and a hit-and-miss clutch 48, (shown in detail in Figs. 6, 7, and 8,) which is open normally. This clutch is operated by a rod 49, connected to a lever 50, Fig. 1. The construction of the clutch and the manner of its operation will be described hereinafter.

The number of papers deposited in any particular section of the delivering-conveyer is determined by the assorting mechanism hereinbefore referred to and now about to be described.

51 and 52 are two shafts upon opposite sides of the machine, supported in such manner as to be readily removable. Each shaft carries a series of reels 53 and a belt-wheel 54 or 55, respectively, the belt-wheel and reels of each shaft being revolubly mounted thereon and connected together and being movable laterally along their shaft. Belt-wheels 54 and 55 are connected by suitable driving-belts to shafts 56 and 57, the belts running on these shafts themselves or on very wide-faced belt-pulleys thereon, so that the belts may be moved laterally a considerable distance with the belt-wheels 54 and 55 without interfering with the driving of the belt-wheels. Shafts 56 and 57 are arranged to be driven by sprocket-chains from shafts 58 and 59, respectively. Shaft 58 carries a gear 60, adapted to mesh with a gear 61 on the section 11' of the main driving-shaft 11, and is mounted so that it may be moved toward or from the shaft 11, so throwing the gear 60 into or out of mesh with gear 61. Shaft 59 also has a gear 62, which may be driven from gear 61 through a movable intermediate gear 63, Fig. 1, the intermediate gear being inserted so that shaft 59 may be driven in the opposite direction to shaft 58. A sprocket-chain 64 passes from a reel on one of the shafts 51 and 52 to a reel on the other shaft, passing over sprocket-wheels on shafts 65 and 66 at the top of the machine. The sprocket-wheels on shafts 65 and 66, over which the chain 64 passes, serve as guides for the chain and also serve to drive the same, since each of shafts 65 and 66 is connected by another sprocket-chain to that shaft 56 or 57 which is on its own side of the machine, and, as has been stated already, shafts 56 and 57 may both be driven from the main driving-shaft 11, the one shaft or the other being so driven according to the direction in which it is desired to feed the chain 64. The belts which drive the belt-wheels 54 and

55 are slip-belts, serving to keep the chain taut and to wind up the chain as it is fed forward.

The chain 64 (shown in detail in Figs. 10 and 11) is a sprocket-chain, the links of which are connected together in such manner as to be readily detachable, being merely hooked together. Most of the links carry side pieces or pallets 67. The chain passes over a table 68, Figs. 1, 3, and 4, having an opening (shown in dotted lines in Fig. 4) directly beneath, which is one end of the lever 50, heretofore mentioned as connected with and arranged to operate the clutch 48, by which the motion of the delivering-conveyer is controlled. The lever 36, heretofore mentioned as carrying the tripping-rods 35 of the feeding mechanism, has at its front end a downwardly-projecting tripping-rod 69, the end of which has a head beveled at the sides. This rod is directly over the pallets of the chain 64, and a spring 70 tends to pull it down against said pallets. When a link having no pallet reaches the tripper 69, said tripper passes through the gap in the line of pallets and through the opening in the table 68 and pressing down upon lever 50 closes the clutch 48, as will be seen hereinafter, thus setting in motion the delivering-conveyer. When a link having a pallet next reaches the rod 69, it encounters the beveled side of the head of the rod and pushes the rod upward, thus opening the clutch 48. The chain 64 is the controlling element of the assorting mechanism. Its pallet-links are arranged in sections to correspond to sections of the address-strip in the addressing device containing addresses all pertaining to a common locality, and there are as many pallets in each of such sections of the controlling-chain as there are addresses in the corresponding section of the address-strip. If one or more addresses be added to or withdrawn from a particular portion of the address-strip, a similar number of pallet-links are added to or withdrawn from the corresponding section of the chain 64. This may be done readily, since the links are so constructed that they may be attached to or detached from each other readily. Each section of pallet-links in the chain is separated from the other sections by one or more links without pallets, the number of plain links or links without pallets between each pallet-section being such that during the interval of movement of the delivering-conveyer which these plain links are the means of producing the delivery-conveyer shall move far enough to bring an empty compartment opposite the belts 37, thus separating the newspapers, magazines, or the like which are to go to one locality from the articles which are to go to another locality, or, in other words, dividing the papers, magazines, or other articles passed through the machine into lots or assorting them according to their addresses. Each chain will correspond usually to a particular route or district, and the

machine is provided with a number of reels, so that it may carry chains corresponding to a number of routes or districts. When one chain has been fed through the machine, its reels may be pushed to one side upon their shafts and other reels moved into position and their chain fed through the machine. The shafts 51 and 52 being readily removable when all of the chains upon a particular pair of shafts have been fed through the machine the shafts may be removed and other shafts carrying reels of controlling-chains may be substituted therefor. As soon as one lot of articles assorted has been completed and the section of the delivering-conveyer containing the lot has moved on beyond the position opposite the belts 37 the lot should be removed by an attendant. The chains 64 may be fed in either direction through the machine, and hence do not require rewinding, care being taken, however, that the corresponding sections of the controlling-chain and address-strip pass through the machine in the same order.

The hit-and-miss clutch 48, which controls the movement of the delivering-conveyer and which is shown in detail in Figs. 6, 7, and 8, consists of two disks 71 and 72, one of which, 71, is loose upon shaft 45 and has secured to it the sprocket-wheel over which the driving-chain 47 of the delivering-conveyer runs, and the other of which, 72, is keyed to the shaft 45. Disk 72 carries a pivoted bell-crank 73, one end of which is adapted when in proper position to engage a pin 74, projecting from the adjacent face of the disk 71, the other arm of the bell-crank extending out beyond the edges of the disk, so that it may be engaged by a pivoted hook 75, to which the operating-rod 49 of the clutch is connected. When the hook is in engagement with the bell-crank 73, it holds it out of the path of the pin 74; but when rod 49 is raised by the action of the tripper-finger 69, Fig. 1, on lever 50 the bell-crank 73 is released, and a spring 73' draws it into the path of the pin 74, so that as soon as pin 74 contacts with the bell-crank the rotation of the shaft 45 begins. When the rod 49 drops, as it does when the tripper 69 rises, the hook 75 again engages with the bell-crank 73 and draws it out of the path of the pin 74, so stopping the rotation of the shaft 45.

The addresser 22, a detailed description of which has not been given heretofore, is shown most clearly in Figs. 2 and 3 and in the detail views, Figs. 12, 13, and 14. It has a casing within which is a reservoir 76 for paste or other adhesive substance, a spool 77 carrying address-labels printed on a long strip of paper wound upon the spool, which strip is perforated, toothed rollers 78 and 79 for guiding and feeding the address-strip, and a paste-band 80 and other guide-rollers for the paste-band, which cause it to pass through the reservoir 76. A spring 81 retards the feeding of the address-strip, keeping it taut at

all times. In front of the casing are cutters or shears, one, 82, being stationary and the other, 83, movable, being pivotally mounted. Cutter 83 is vibrated by an eccentric-pin 84, 5 carried by a shaft 85. Shaft 85 is driven from a shaft 86 by a sprocket-chain 87 and a hit-and-miss clutch 88, similar to clutch 48. (Illustrated in Figs. 6, 7, and 8.) Shaft 86 is driven by a sprocket-chain 89 from the 10 main driving-shaft 11. The clutch 88 is operated by an arm 90', secured to a rock-shaft 90. To said rock-shaft is connected an arm 91, also connected by a link 92 to an arm 93, forming an extension of the lever 36, carrying the tripper 69. When tripper 69 passes 15 through a gap in the line of pallets, the clutch 88 is opened and the operation of the addresser stops, to be resumed again when the tripper rises. The clutch 88, with the tripper 69, therefore forms a stop-motion device to prevent the operation of the addresser during the time which elapses between the feeding forward of the last paper of one lot and the first paper of the next succeeding lot. 20

The feeding-roll 79 of the addressing device is rotated by a ratchet mechanism (shown in Fig. 14) consisting of a pivoted arm the end of which is above the cutter 83 and in such position that when said cutter 25 rises it lifts the pivoted arm. A spring tends to draw said arm downward. The arm carries a ratchet-pawl adapted to engage with a ratchet-wheel on a shaft geared to the shaft of the roll 79. In the operation of the addressing device when the cutter 83 rises this 30 ratchet mechanism rotates the roll 79, drawing a length of the address-strip under the cutter 83 and moving the paste-band so that the new length of address-strip which comes in contact with said band has paste applied to it. A thin stripper-finger 94, located at 35 the point where the address-strip and paste-band separate, assists in their separation. When the cutter 83 descends, it cuts off the portion of the address-strip which is beneath 40 it, and the flat lower surface of the cutter presses the label so cut off upon the top paper or magazine in the receiving-elevator. The receiving-elevator is not driven directly 45 from the belt-pulley on shaft 17, over which belt 16 passes, but through a hit-and-miss clutch 95, Fig. 1, similar to the hit-and-miss clutches 48 and 88 and controlled by a rod 96, connected to an arm on a rock-shaft 97. 50

Another arm 98, Fig. 4, on this rock-shaft has a downwardly-projecting tripper 99, located directly over the receiving-elevator, and the lower end of this tripper is just above the position at which the addressing device 55 and feed-finger 24 can operate upon the papers or magazines on the elevator to best advantage. If the elevator feeds the papers or magazines upward more rapidly than the finger 24 can carry them away, the rod 99 is 60 raised, thus throwing open the clutch 95 and stopping the upward movement of the elevator. As soon as a sufficient number of pa-

pers or magazines have been removed from the elevator by the feed-fingers 24, the tripper-rod 99 falling as they are removed, the 70 clutch 95 closes again and the elevator begins to operate.

As already stated, the main driving-shaft 11 is provided with a hit-and-miss clutch 11², 75 interposed between the driving-belt wheel 10 and the section 11' of the shaft upon which the parts which drive the controlling-chain 64, the feed-finger 24, and the addressing device 22 are mounted. This clutch is controlled by a tripper-finger 102, located over 80 the receiving-elevator and with its end somewhat lower down than that of tripper 99. The clutch 11² is so arranged that when the tripper 102 is lifted by papers on the elevator the said clutch is thrown into gear or closed, 85 thus permitting the feeding-finger 24, the addressing device 22, and the controlling-chain 64 to operate; but when the tripper 102 is not lifted the clutch 11² is open, thus stopping the 90 chain 64, feed-finger 24, and addressing device, although the elevator, being driven from the main section 11 of the main driving-shaft, continues to operate. The clutch 11², with its tripper 102, therefore forms a stop-motion 95 device which prevents false operation of the machine at times when there are no papers or magazines in position to be addressed and assorted.

The platforms of the elevator are provided with openings to permit the passage of the 100 shelves past the trippers 99 and 102 and the parts of the addresser which project over the elevator and past the feeding mechanism.

The shelves of the elevator are preferably 105 made of metal and are as thin as is consistent with strength, so as to take up as little room as possible. The feed-finger 24, being pivotally mounted, permits some variation of the height of the papers or magazines on the elevator to exist without interfering with the 110 feeding of such articles from the elevator. For this reason if the shelves of the elevator be sufficiently thin and if the papers or magazines be placed on the shelves of the elevator in sufficient number to fill the spaces between 115 the shelves, as should be the case, feeding of the papers or magazines may continue without intermission when the feed-finger has removed all of the papers or magazines on one shelf and drops to those on the next shelf below. The elasticity of the papers or maga- 120 zines also permits the addressing device to affix labels, although there may be variation from time to time in the height of the papers or magazines with respect to the addresser. 125

The operation of my machine is as follows: The shelves of the receiving-elevator are first filled with the papers, magazines, or other articles to be assorted and addressed. In 130 most newspaper-offices this will be done on a floor below that on which the principal portion of the machine is mounted, the receiving-elevator being extended down to the floor below, as indicated in Figs. 1, 2, and 3. Since

the tripper 102 is not lifted until articles on the elevator have reached it, the driving-wheel 10 may be rotated and the elevator driven to facilitate the filling of the shelves of the elevator before the addressing and assorting begins. As soon as papers or magazines on the elevator have reached the tripper 102 and lifted the same it closes the clutch 11², and the addressing device 22, feed-finger 24, and controlling-chain 64 begin to operate. The addresser draws a section of the address-strip forward, cuts it off, and affixes it to the top paper or magazine on the elevator. The paper or magazine so addressed is then removed from the elevator by the feed-fingers 24, which are reciprocating back and forth and which deposit the paper or magazine upon the feed-belts 37, which carry it forward until it falls into a compartment of the delivering-conveyer 42, which conveyer is stationary at the time. In the meantime a new paper or magazine has been addressed and is being carried forward by the feed-fingers. As each paper or magazine is thus addressed and carried forward to the delivering-conveyer the controlling-chain 64 moves forward one link. This series of operations continues until all of the papers or magazines to be sent to a particular locality have been addressed and fed forward to the delivering-conveyer, when the chain 64, which tallies with the address-strip, has moved forward until a gap in the line of pallets is reached by the tripper 69. The tripper 69 is then drawn through said gap by its spring 70, thus stopping the operation of the addresser, raising the trippers 35 out of the path of the latches 34 on the reciprocating carriages 23 of the feeding apparatus, thus stopping the feeding forward of papers or magazines on the elevator and depressing the lever 50, thus closing the clutch 48 and starting the delivering-conveyer. The length of the gap in the line of pallets is sufficient to permit the delivering-conveyer to move until another of its compartments has been brought opposite the point at which newspapers or magazines may be delivered thereto by the feed-belts 37, and as soon as the delivering-conveyer has moved so far a pallet of the controlling-chain encounters the tripper 69 and lifts it; thus starting the operation of the addresser and the feeding of articles from the elevator. An attendant removes the articles of the first lot from the delivering-conveyer and wraps the same into a bundle preparatory to shipping them or otherwise disposes of them.

The operation of the machine is practically continuous, the addressing and feeding being interrupted only long enough to permit a separation between the lots. If the papers or magazines be fed upward too rapidly by the elevator, the clutch 95 opens and the upward movement of the elevator ceases temporarily, although the feeding of papers or magazines from the elevator does not cease

unless the control-chain should happen to cause such cessation at the same time. If the papers or magazines are not fed upward sufficiently rapidly by the elevator, the clutch 11² opens from time to time, thus stopping the feeding of papers or magazines from the elevator, the addressing, and the movement of the control-chain, while the elevator continues to operate.

In Fig. 9 one of the brackets by which the platforms of the elevator are secured to their chains is shown. 100 is the bracket. It is provided with friction-rollers 101, which roll upon guides in the uprights 21, serving to keep the platforms steady and to facilitate the passage of the platforms about the sprocket-wheels, as shown in Fig. 3.

The delivering-conveyer 42 is not an essential feature of the machine, but is a convenience. It may be dispensed with, if desired, an attendant being stationed at the machine to remove the papers or magazines which have accumulated at the discharge end of the machine during each pause which marks the completion of one lot. Nor is the addressing device an essential element of the machine, since the machine may be used for dividing up papers or magazines or other articles delivered to it in quantities into lots of predetermined size, regulated by other considerations, it may be, than localities to which such articles are to be sent. Other feeding mechanism, other addressing devices, and other mechanism for delivering the papers, magazines, or other articles to the assorting and feeding mechanisms than those illustrated may be used, and the construction of the assorting mechanism may be varied greatly. I do not limit myself, therefore, to the forms, construction, and arrangement of the parts shown in the drawings.

If desired, folding and wrapping devices may be arranged to operate in conjunction with the machine, and the machine may be employed for assorting other articles than newspapers and magazines. The receiving-conveyer, with the addressing device operating upon the articles thereon, and the feeding mechanism, which removes the articles addressed from the elevator, may be used independently as an addressing-machine.

When the number of articles to be sent to any one locality is greater than can be held by a single compartment of the delivery-conveyer or greater than can be shipped conveniently in a single package, the assorting mechanism may be caused to separate the articles to be sent to that locality into two or more lots by inserting a proper number of plain links in the section of the controlling-chain corresponding to that locality, and the same may be done if for any other reason it is desirable to subdivide the lots which would otherwise be formed.

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

1. In a machine for assorting newspapers, magazines, and the like, the combination, with feeding mechanism, of an assorting mechanism for separating the articles fed forward, into lots of predetermined and variable numbers, and means for preventing the operation of the assorting mechanism when no articles are fed forward, substantially as described.

2. In a machine for assorting newspapers, magazines, and the like, the combination, with feeding mechanism, of an assorting mechanism for separating the articles fed forward, into lots of predetermined and variable numbers, and means for interrupting the feeding at the completion of each lot, substantially as described.

3. In a machine for assorting newspapers, magazines, and the like, the combination, with feeding mechanism, of an assorting mechanism for separating the articles fed forward, into lots of predetermined and variable numbers, said assorting mechanism including a controlling member having sections corresponding to the different lots into which the articles to be assorted are to be divided, each section having actuating devices corresponding to the number of articles to be included in the corresponding lot, and means controlled by said actuating devices for dividing the articles into the lots, substantially as described.

4. In a machine for assorting newspapers, magazines, and the like, the combination, with feeding mechanism, of an assorting mechanism for separating the articles fed forward, into lots of predetermined and variable numbers, said assorting mechanism including a controlling member having sections corresponding to the different lots into which the articles to be assorted are divided, each section having actuating devices, corresponding to the number of articles to be included in the corresponding lot, and capable of being varied to change at will the number of articles in any lot, and means controlled by said actuating devices for dividing the articles into the lots, substantially as described.

5. In a machine for assorting newspapers, magazines, and the like, the combination, with feeding mechanism, of an assorting mechanism for separating the articles fed forward, into lots of predetermined and variable numbers, said assorting mechanism including a controlling member having separable sections corresponding to the different lots into which the articles to be assorted are divided, each section having actuating devices, corresponding to the number of articles to be included in the corresponding lot, and capable of being varied to change at will the number of articles in any lot, and means controlled by said actuating devices for dividing the articles into the lots, substantially as described.

6. In a machine for assorting newspapers, magazines, and the like, the combination, with feeding mechanism, of an assorting mechanism for separating the articles fed forward, into lots of predetermined and variable num-

bers, said assorting mechanism including a controlling-chain having separable links certain of which are provided with actuating devices and are arranged in sections corresponding to different lots into which the articles to be assorted are to be divided, the actuating devices of each section corresponding to the number of articles to be placed in the corresponding lot, and means controlled by said actuating devices for dividing the articles into the lots, substantially as described.

7. In a machine for assorting newspapers, magazines, and the like, the combination, with feeding mechanism, of an assorting mechanism for separating the articles fed forward, into lots of predetermined and variable numbers, said assorting mechanism including a controlling-chain having separable links certain of which are provided with projecting pallets, the pallet-links being arranged in sections corresponding to different lots into which the articles to be assorted are to be divided, the pallet-links in each section corresponding in number to the number of articles in the corresponding lot, means for feeding the controlling-chain, and a tripper controlling the operation of the feeding mechanism, and normally pressing against the pallets of the controlling-chain, and arranged, when a link having no pallet reaches it, to stop the feeding of articles to be assorted, substantially as described.

8. In a machine for assorting newspapers, magazines, and the like, the combination, with feeding mechanism, of an assorting mechanism for separating the articles fed forward, into lots of predetermined and variable numbers, means for preventing the operation of the assorting mechanism when no articles are fed forward, and a delivery device, substantially as described.

9. In a machine for assorting newspapers, magazines, and the like, the combination, with feeding mechanism, of an assorting mechanism for separating the articles fed forward, into lots of predetermined and variable numbers, a delivering-conveyer adapted to receive the articles of each lot, as they are fed forward, and means operated by the assorting mechanism, for holding the conveyer stationary, during the feeding of the articles of each lot, and for causing the operation of the conveyer to commence when the feeding of each lot is completed, substantially as described.

10. In a machine for assorting newspapers, magazines, and the like, the combination, with feeding mechanism, of an assorting mechanism for separating the articles fed forward, into lots of predetermined and variable numbers, a delivering-conveyer having compartments adapted to receive the articles of each lot, as they are fed forward, means for driving the conveyer, a clutch interposed between said driving means and the conveyer, and means, operated by the assorting mechanism, for holding said clutch open during the feed-

ing of the articles of each lot, and for closing the clutch when the feeding of each lot is completed, substantially as described.

11. In a machine for assorting newspapers, 5 magazines, and the like, the combination, with feeding mechanism, for feeding the articles to be assorted, of an assorting mechanism for separating the articles fed forward, into lots of predetermined and variable numbers, said 10 assorting mechanism including a controlling-chain having separable links certain of which are provided with projecting pallets, the pallet-links being arranged in sections corresponding to different lots into which the arti- 15 cles to be assorted are to be divided, the pallet-links in each section corresponding in number to the number of articles in the corresponding lot, means for feeding the controlling-chain, a tripper controlling the operation 20 of the feeding mechanism which feeds forward the articles to be assorted, normally pressing against the pallets of the controlling-chain, and arranged, when a link having no pallet reaches it, to pass through the line of 25 pallets, a delivering-conveyer adapted to receive the articles fed forward by the feeding mechanism, means for driving the same, and means, operated by said tripper, for setting the delivering-conveyer in operation when it 30 passes through the line of pallets, and for preventing the operation of the conveyer when it is pressing against the pallets, substantially as described.

12. In a machine for assorting newspapers, 35 magazines, and the like, the combination, with feeding mechanism, and assorting mechanism for separating the articles fed forward, into lots of predetermined and variable numbers, of a delivery device adapted to receive from 40 the feeding mechanism the articles fed forward thereby, and consisting of parallel and cross-connected sprocket-chains having at intervals projecting fingers by which they are divided into sections, means for driving 45 said delivery-conveyer, and means, operated by the assorting mechanism, for keeping the delivery-conveyer out of driving connection with the driving device during the feeding of the articles of each lot, and for placing the 50 conveyer in driving connection with its driving device when the feeding of each lot is completed, substantially as described.

13. In a machine for assorting newspapers, 55 magazines, and the like, the combination, with feeding mechanism, and assorting mechanism for separating the articles fed forward, into lots of predetermined and variable numbers, of a delivery-conveyer adapted to receive 60 from the feeding mechanism the articles fed forward thereby, and arranged to move in a direction at right angles to the direction of motion of the said feeding mechanism, and guards beside the delivery-conveyer, opposite the point of delivery of the articles thereto, 65 for preventing escape of the articles therefrom, substantially as described.

14. In a machine for assorting newspapers, magazines, and the like, the combination, with feeding mechanism for feeding the articles to be assorted, a delivering-conveyer adapted to 70 receive from the feeding mechanism the articles fed forward thereby, and a driving device connected to said delivering-conveyer through a clutch, of an assorting mechanism for separating the articles fed forward, into lots of 75 predetermined and variable numbers, said assorting mechanism including a controlling-chain having separable links certain of which are provided with projecting pallets, the pallet-links being arranged in sections corresponding to the different lots into which the 80 articles to be assorted are to be divided, the pallet-links in each section corresponding in number to the number of articles in the corresponding lot, means for feeding the controlling-chain, a tripper controlling the operation 85 of the feeding mechanism which feeds forward the articles to be assorted, which tripper normally presses against the pallets of the controlling-chain, and is arranged, when a 90 link having no pallet reaches it, to pass through the line of pallets, and a lever controlling the driving-clutch of the delivering-conveyer and normally in position to hold said clutch open, said lever being located op- 95 posite said tripper and upon the opposite side of the controlling-chain in such position that when the tripper passes through the line of pallets it moves said lever and closes the clutch, thereby setting the delivering-con- 100 veyer in operation, substantially as described.

15. In a machine for addressing and assorting newspapers, magazines, and the like, the combination, with addressing mechanism, and feeding mechanism for feeding forward the 105 articles successively, when addressed, of means for separating the articles so fed forward into lots, and means for preventing the operation of such means for separating the articles into lots, when no articles are fed for- 110 ward, substantially as described.

16. In a machine for addressing and assorting newspapers, magazines, and the like, the combination, with addressing mechanism, and feeding mechanism for feeding forward the 115 articles successively, when addressed, of receptacles for receiving the articles so fed forward, means for delivering the articles according to lots into different receptacles, and means for preventing the operation of such 120 means for dividing the articles into lots, when no articles are fed forward, substantially as described.

17. In a machine for addressing and assorting newspapers, magazines, and the like, the 125 combination, with addressing mechanism, and feeding mechanism for feeding forward the articles, successively, when addressed, of a delivering-conveyer, arranged to receive the articles so fed forward, and automatic means 130 for stopping said conveyer when the feeding of the articles of a lot is commenced and for

starting said conveyer when the feeding of the articles of each lot is completed, substantially as described.

18. In a machine for addressing and assorting newspapers, magazines, and the like, the combination, with addressing mechanism, and feeding mechanism for feeding forward the articles, successively, when so addressed, of a delivery-conveyer having compartments adapted to receive the articles of each lot, as they are fed forward, means for automatically holding the conveyer stationary during the feeding of each lot, and for bringing a new compartment of said conveyer opposite the point of delivery of the articles thereto, at the completion of each lot, substantially as described.

19. In a machine for addressing and assorting newspapers, magazines, and the like, the combination, with addressing mechanism, and feeding mechanism for feeding forward the articles, successively, when so addressed, of a delivery-conveyer, arranged to receive the articles so fed forward, and means for starting the conveyer in motion and simultaneously interrupting the feeding of articles thereto, and for stopping the conveyer and simultaneously commencing the feeding of articles thereto, substantially as described.

20. In a machine for addressing and assorting newspapers, magazines, and the like, the combination, with addressing mechanism, and feeding mechanism, of an assorting mechanism for separating the articles addressed, into lots corresponding to localities to which they are addressed, and means for stopping the operation of the addressing and assorting mechanism when no articles are fed forward, substantially as described.

21. In a machine for addressing and assorting newspapers, magazines, and the like, the combination, with addressing mechanism, and feeding mechanism, of an assorting mechanism for separating the articles addressed into lots corresponding to localities to which they are addressed, said assorting mechanism including a controlling member having sections corresponding to the different lots into which the articles to be assorted are to be divided, each section having actuating devices corresponding to the number of articles to be included in the corresponding lot, and means controlled by said actuating devices for dividing the articles into the lots, substantially as described.

22. In a machine for addressing and assorting newspapers, magazines, and the like, the combination, with addressing mechanism, and feeding mechanism, of an assorting mechanism for separating the addressed articles into lots corresponding to localities to which they are addressed, said assorting mechanism including a controlling member having sections corresponding to the different lots into which the articles to be assorted are divided, each section having actuating devices, corresponding to the number of articles to be included

in the corresponding lot, and capable of being varied to change at will the number of articles in any lot, and means controlled by said actuating devices for dividing the articles into the lots, substantially as described.

23. In a machine for addressing and assorting newspapers, magazines, and the like, the combination, with addressing mechanism, and feeding mechanism, of an assorting mechanism for separating the addressed articles into lots corresponding to localities to which they are addressed, said assorting mechanism including a controlling member having separable sections corresponding to the different lots into which the articles to be assorted are divided, each section having actuating devices, corresponding to the number of articles to be included in the corresponding lot, and capable of being varied to change at will the number of articles in any lot, and means controlled by said actuating devices for dividing the articles into the lots, substantially as described.

24. In a machine for addressing and assorting newspapers, magazines, and the like, the combination, with addressing mechanism, and feeding mechanism, of an assorting mechanism for separating the addressed articles into lots corresponding to localities to which they are addressed, said assorting mechanism including a controlling-chain having separable links certain of which are provided with actuating devices and are arranged in sections corresponding to different lots into which the articles to be assorted are to be divided, the actuating devices of each section corresponding to the number of articles to be placed in the corresponding lot, and means controlled by said actuating devices for dividing the articles into the lots, substantially as described.

25. In a machine for addressing and assorting newspapers, magazines, and the like, the combination, with addressing mechanism, and feeding mechanism, of an assorting mechanism for separating the articles fed forward, into lots of predetermined and variable numbers, and means for interrupting the feeding and the addressing at the completion of each lot, substantially as described.

26. In a machine for addressing and assorting newspapers, magazines, and the like, the combination, with addressing mechanism, and feeding mechanism, of an assorting mechanism for separating the addressed articles into lots corresponding to the localities to which they are addressed, said assorting mechanism including a controlling-chain having separable links certain of which are provided with projecting pallets, the pallet-links being arranged in sections corresponding to different lots into which the articles to be assorted are to be divided, the pallet-links in each section corresponding in number to the number of articles in the corresponding lot, means for feeding the controlling-chain, and a tripper controlling the operation of the feeding mechanism, and normally pressing against the pal-

lots of the controlling-chain, and arranged, when a link having no pallet reaches it, to stop the feeding and addressing of articles to be assorted, substantially as described.

5 27. In a machine for addressing and assorting newspapers, magazines, and the like, the combination, with addressing mechanism, and feeding mechanism, of an assorting mechanism for separating the articles addressed
10 into lots corresponding to localities to which they are addressed and means for stopping the operation of the addressing and assorting mechanism when no articles are fed forward, and a delivery device adapted to receive the
15 articles of each lot, as they are fed forward, and deliver each lot when completed, substantially as described.

28. In a machine for addressing and assorting newspapers, magazines, and the like, the
20 combination, with addressing mechanism, and feeding mechanism, of an assorting mechanism for separating the articles addressed into lots corresponding to localities to which they are addressed, a delivering-conveyer
25 adapted to receive the articles of each lot, as they are fed forward, and means operated by the assorting mechanism, for holding the conveyer stationary, during the feeding of the articles of each lot, and for causing the op-
30 eration of the conveyer to commence when the feeding of each lot is completed, substantially as described.

29. In a machine for addressing and assorting newspapers, magazines, and the like, the
35 combination, with addressing mechanism, and feeding mechanism, of an assorting mechanism for separating the articles addressed into lots corresponding to localities to which they are addressed; a delivering-conveyer
40 adapted to receive the articles of each lot, as they are fed forward, and means operated by the assorting mechanism, for holding the conveyer stationary, during the feeding of the articles of each lot, for interrupting the feed-
45 ing and addressing at the completion of each lot and causing the operation of the said delivering-conveyer to commence, and for stopping the operation of the delivering-conveyer and starting the feeding and addressing as
50 soon as a new section of the delivering-conveyer is opposite the point at which articles addressed are delivered thereto, substantially as described.

30. In a machine for assorting newspapers,
55 magazines, and the like, the combination, with conveying apparatus, of feeding mechanism, adapted to remove the articles successively from the conveying apparatus, an assorting mechanism for separating the articles fed for-
60 ward, into lots of predetermined and variable numbers and means for preventing the operation of the assorting mechanism when no articles are fed forward, substantially as described.

65 31. In a machine for assorting newspapers, magazines, and the like, the combination, with conveying apparatus, of feeding mechanism

adapted to remove the articles successively from the conveying apparatus, assorting mechanism for separating the articles fed forward, 70 into lots of predetermined and variable numbers, means for interrupting the feeding at the completion of each lot, and means for controlling and regulating the movement of the conveying apparatus, substantially as de- 75 scribed.

32. In a machine for assorting newspapers, magazines, and the like, the combination, with conveying apparatus, of feeding mechanism adapted to remove the articles successively 80 from the conveying apparatus, an assorting mechanism for separating the articles fed forward, into lots of predetermined and variable numbers, means for preventing the operation of the assorting mechanism when no articles 85 are fed forward, and a delivery device adapted to receive the articles of each lot as they are fed forward, and deliver each lot when completed, substantially as described.

33. In a machine for addressing newspa- 90 pers, magazines, and the like, the combination, with conveying apparatus adapted to receive in quantities, and to convey, articles to be addressed, and an addressing device adapt- 95 ed to address the articles so conveyed, of feeding mechanism adapted to successively remove the articles so addressed from the conveyer, assorting mechanism for separating the articles fed forward into lots of predeter- 100 mined and variable numbers, and means for preventing the operation of the assorting mechanism when no articles are fed forward, substantially as described.

34. In a machine for addressing newspa- 105 pers, magazines, and the like, the combination, with conveying apparatus adapted to receive in quantities, and to convey, articles to be addressed, and an addressing device adapt- 110 ed to address the articles so conveyed, of feeding mechanism adapted to successively re- 115 move the articles so addressed from the conveyer, assorting mechanism for separating the articles fed forward into lots of predeter- 120 mined and variable numbers, means for preventing the operation of the assorting mechanism when no articles are fed forward, and a delivery device adapted to receive the arti- 125 cles of each lot as they are fed forward, and to deliver each lot when completed, substantially as described.

35. In a machine for assorting newspapers, magazines, and the like, an assorting mechanism having a controlling-chain, reels adapt- 125 ed to serve alternately as feed and take-up reels, two feed-wheels for feeding the chain 130 in opposite directions, means for driving either wheel at will, and means for driving the reel acting as a take-up reel, substantially as described.

36. In a machine for receiving in quantities, 130 and feeding off separately, newspapers, magazines, and the like, the combination, with a conveying apparatus adapted to receive in quantities such articles, of a feeding mech-

anism for removing the articles successively from the conveyer, including a reciprocating carriage, a feed-finger carried thereby and adapted to engage and feed forward the foremost article on the conveyer, on each forward movement, a stop for disengaging said feed-finger at the conclusion of the forward movement, a latch for holding said finger in such disengaged position during the return movement of the carriage, a tripping device, movably mounted, for releasing said latch at the conclusion of the return movement, and means for moving said tripping device out of the path of the latch to stop the feeding, substantially as described.

37. In a machine for receiving in quantities, and feeding off separately, newspapers, magazines, and the like, the combination, with a conveying apparatus adapted to receive in quantities such articles, of a feeding mechanism for removing the articles successively from the conveyer, including a reciprocating carriage, a feed-finger carried thereby and adapted to engage and feed forward the foremost article on the conveyer, on each forward movement, a stop for disengaging said feed-finger at the conclusion of the forward movement, a latch for holding said finger in such disengaged position during the return movement of the carriage, a tripping device, movably mounted, for releasing said latch at the conclusion of the return movement, means for moving said tripping device out of the path of the latch to stop the feeding, and means for arresting the movement of the conveyer when the articles thereon are fed forward too rapidly, substantially as described.

38. In a machine for assorting newspapers, magazines, and the like, the combination, with a feeding mechanism including a reciprocating carriage, a feed-finger carried thereby and adapted to engage and feed forward the foremost article on the conveyer, on each forward movement, a stop for disengaging the feed-finger at the conclusion of the forward movement, a latch for holding said finger in such disengaged position during the return movement of the carriage, and a tripping device, movably mounted, for releasing said latch at the conclusion of the return movement, of means for moving forward articles to be assorted into position to be engaged by said feed-finger during its forward movement, an assorting mechanism for separating the articles fed forward by said feed-finger into lots of predetermined and variable numbers, and means operated by said assorting mechanism for moving the tripping device of said feeding mechanism out of the path of the latch, when each lot is completed, thereby stopping the feeding, substantially as described.

39. In a machine for receiving in quantities, and feeding off separately, newspapers, magazines, and the like, the combination, with conveying apparatus adapted to receive in quantities such articles, of a feeding mechanism for

removing the articles successively from the conveyer, and a stop-motion device, having a controlling-tripper for stopping the operation of the feeding mechanism when no articles to be removed from the conveyer are within the range of action of the feeding mechanism, substantially as described.

40. In a machine for receiving in quantities and feeding off separately, newspapers, magazines, and the like, the combination, with conveying apparatus adapted to receive in quantities such articles, of a feeding mechanism for removing the articles successively from the conveyer, a stop-motion device for checking the movement of the conveyer when it feeds the articles forward too rapidly, and another stop-motion device, having a controlling-tripper for stopping the operation of the feeding mechanism when no articles to be removed from the conveyer are within the range of action of the feeding mechanism, substantially as described.

41. In a machine for addressing newspapers, magazines, and the like, the combination, with conveying apparatus adapted to receive in quantities, and to convey, articles to be addressed, and an addressing device adapted to address the articles so conveyed, of a feeding mechanism adapted to successively remove the articles so addressed, stop-motion devices controlling the operation of the feeding mechanism and the addressing device, and means for causing such stop-motion devices to stop the operation of the feeding mechanism and addressing device when no articles to be addressed and removed from the conveyer are within the range of action of the addressing device and feeding mechanism, or either of them, substantially as described.

42. In a machine for addressing and assorting newspapers, magazines, and the like, the combination, with conveying apparatus adapted to receive in quantities, and to convey, articles to be addressed and assorted, of an addressing device adapted to address the articles so conveyed, a feeding mechanism adapted to successively remove the articles so addressed, and an assorting mechanism for separating the articles addressed into lots, all deriving their motion from a common driving member, a clutch interposed between said driving member and the source of power, and a tripping device controlling said clutch, and arranged to open the clutch when no articles to be addressed and removed from the conveyer are within the range of action of the addressing device and feeding mechanism, or either of them, substantially as described.

43. In a machine for assorting newspapers, magazines, and the like, the combination, with conveying apparatus adapted to receive in quantities, and to convey, such articles, of a feeding mechanism for removing the articles successively from the conveyer, an assorting mechanism for separating the articles

so fed forward into lots, and a tripping device for stopping the action of the feeding and assorting mechanisms when no articles are within the range of action of the feeding mechanism, substantially as described.

44. In a machine for addressing newspapers, magazines, and the like, the combination, with conveying apparatus adapted to receive in quantities, and to convey, articles to be addressed, of a stationary addressing device adapted to address the articles so conveyed, and containing feeding mechanism for feeding forward successive lengths of an address-strip, a moving cutter adapted to cut off successive lengths of said address-strip and apply the same to articles on the conveyer, and a rotating shaft and means connected therewith for operating said cutter; and means for removing the articles addressed successively from the conveyer, substantially as described.

45. In an addressing device, the combination, with a feed-roller for feeding forward an address-strip from a suitable source of supply, of a moving cutter adapted to cut off successive lengths of said address-strip and apply

the same to articles to be addressed, a rotary driving member and means operated thereby for reciprocating said cutter, and ratchet mechanism, operated by said cutter when moving, for rotating said feed-roller at intervals, substantially as described.

46. In a machine for receiving in quantities, and feeding off separately, newspapers, magazines, and the like, the combination, with conveying apparatus adapted to receive in quantities such articles, and reciprocating feed-fingers or equivalent devices for removing the articles successively from the conveyer, of a delivering-conveyer, feed-belts adapted to receive the articles from the feed-fingers or their equivalent devices and deliver the articles to the delivering-conveyer and assorting mechanism, substantially as described.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

LEE A. AGNEW.

Witnesses:

HARRY M. MARBLE,
J. C. SPRINGSTEEN.