No. 891,614. PATENTED JUNE 23, 1908

H. FRIEDLEIN.

TICKET PRINTING AND REGISTERING APPARATUS.

APPLICATION FILED DEC. 4, 1907.

4 SHEETS—SHEET 1.

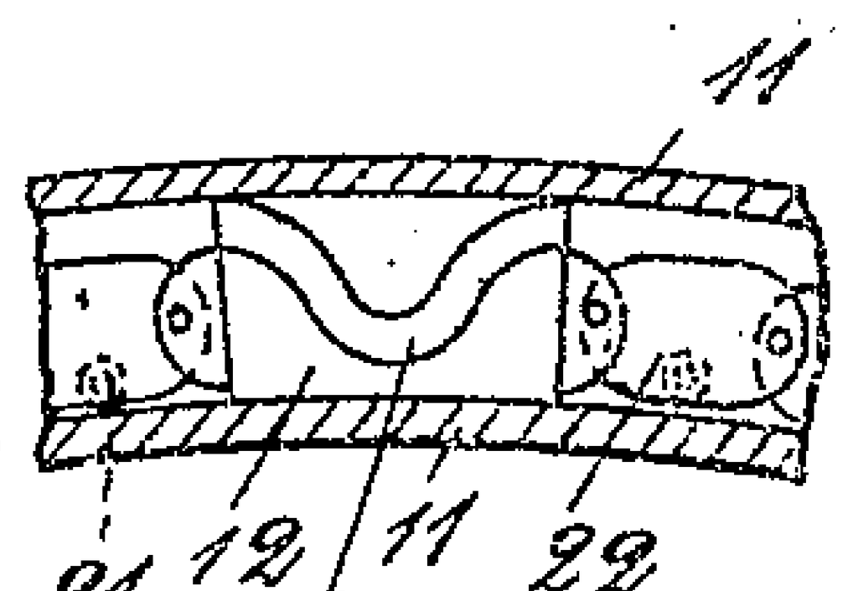


Fig. 4

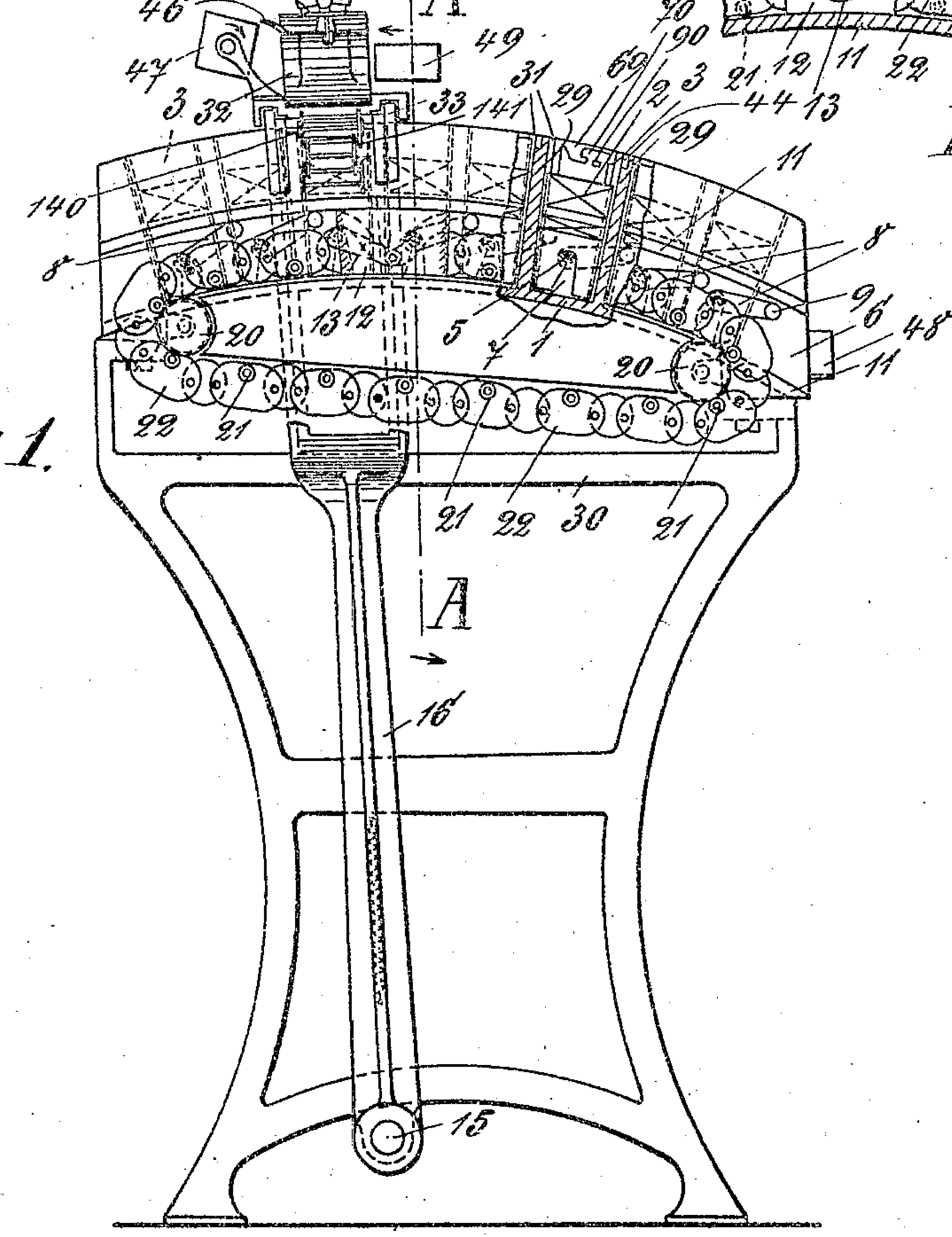
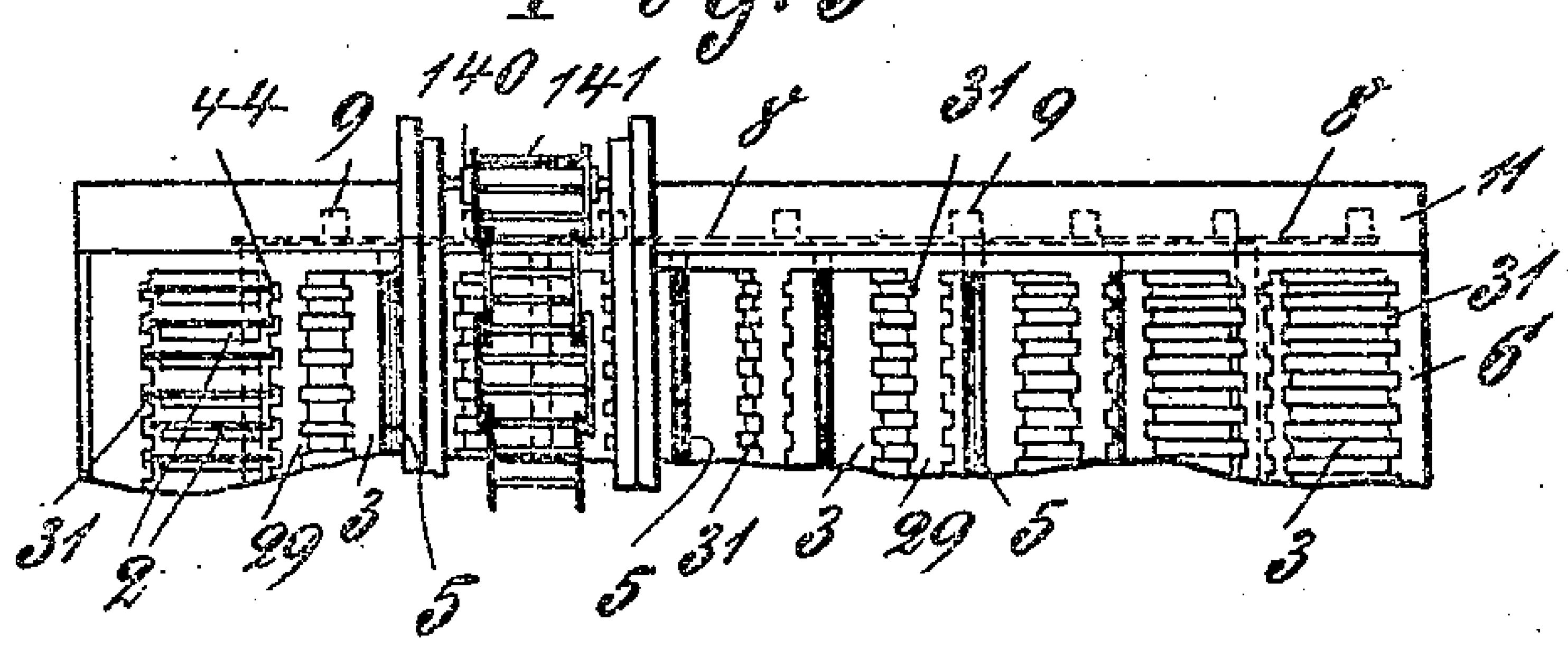


Fig. 1.

Fig. 3



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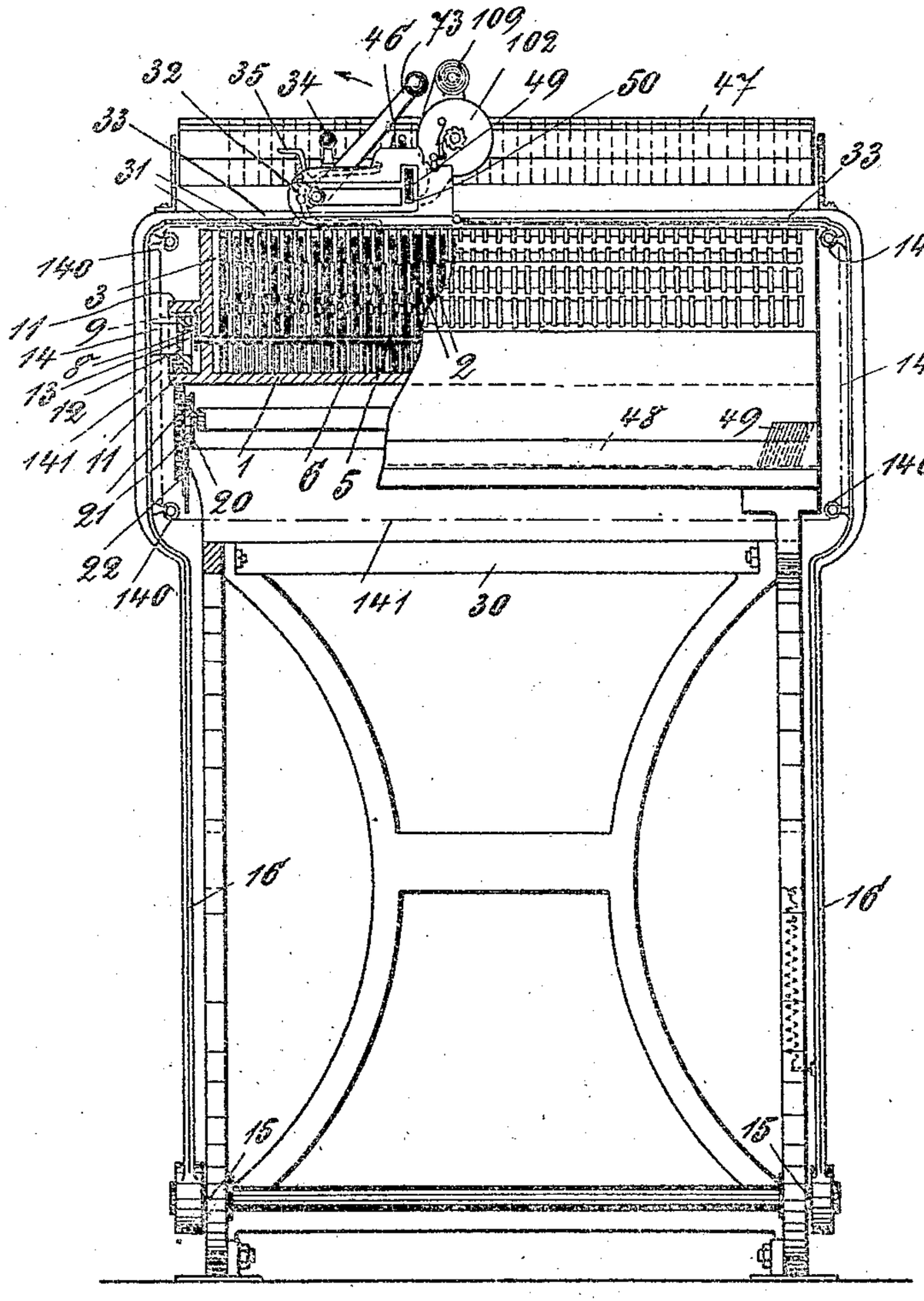
4 SHEETS—SHEET 2.

Fig. 2



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4 SHEETS—SHEET 3.

Fig. 5

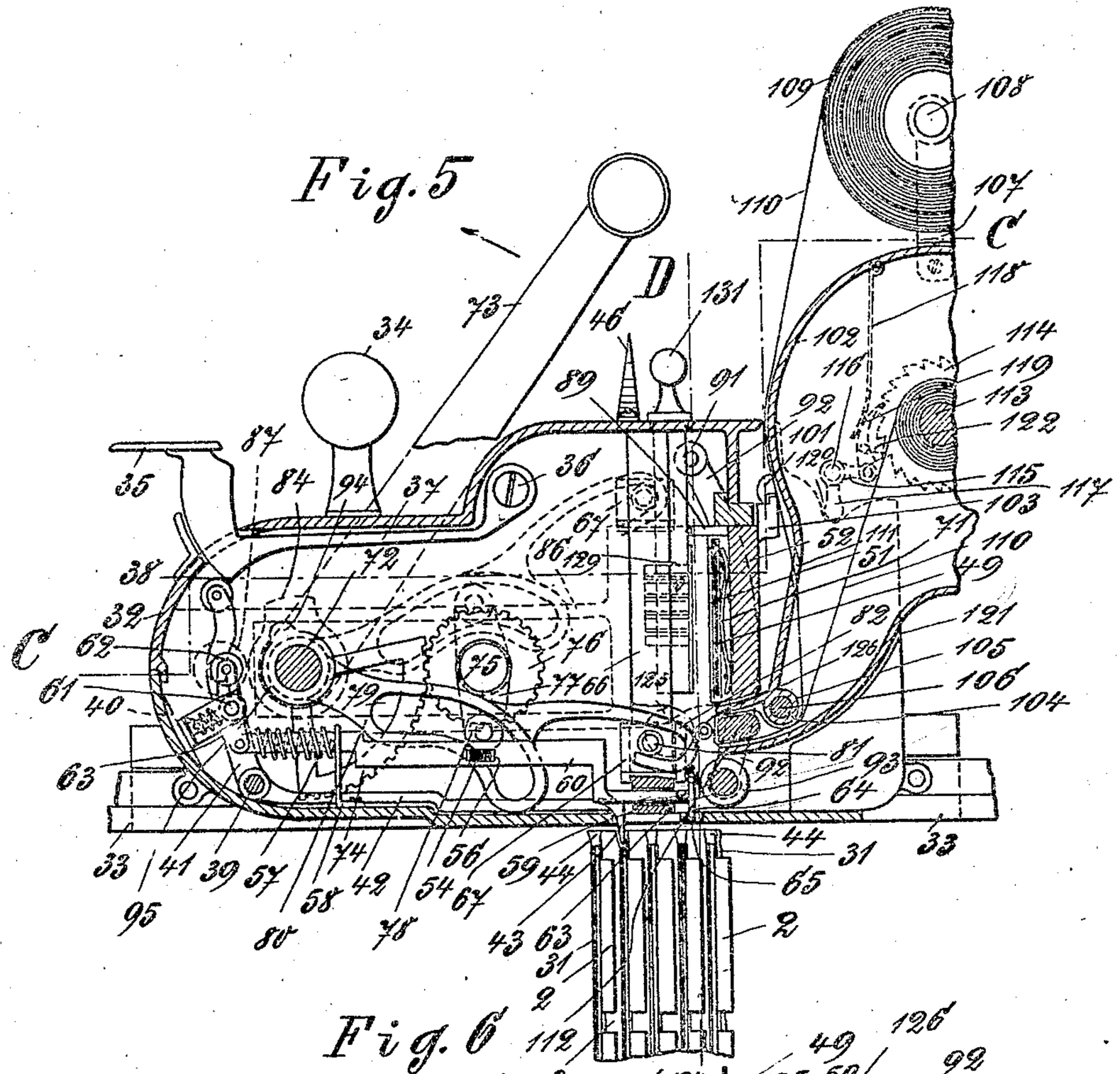
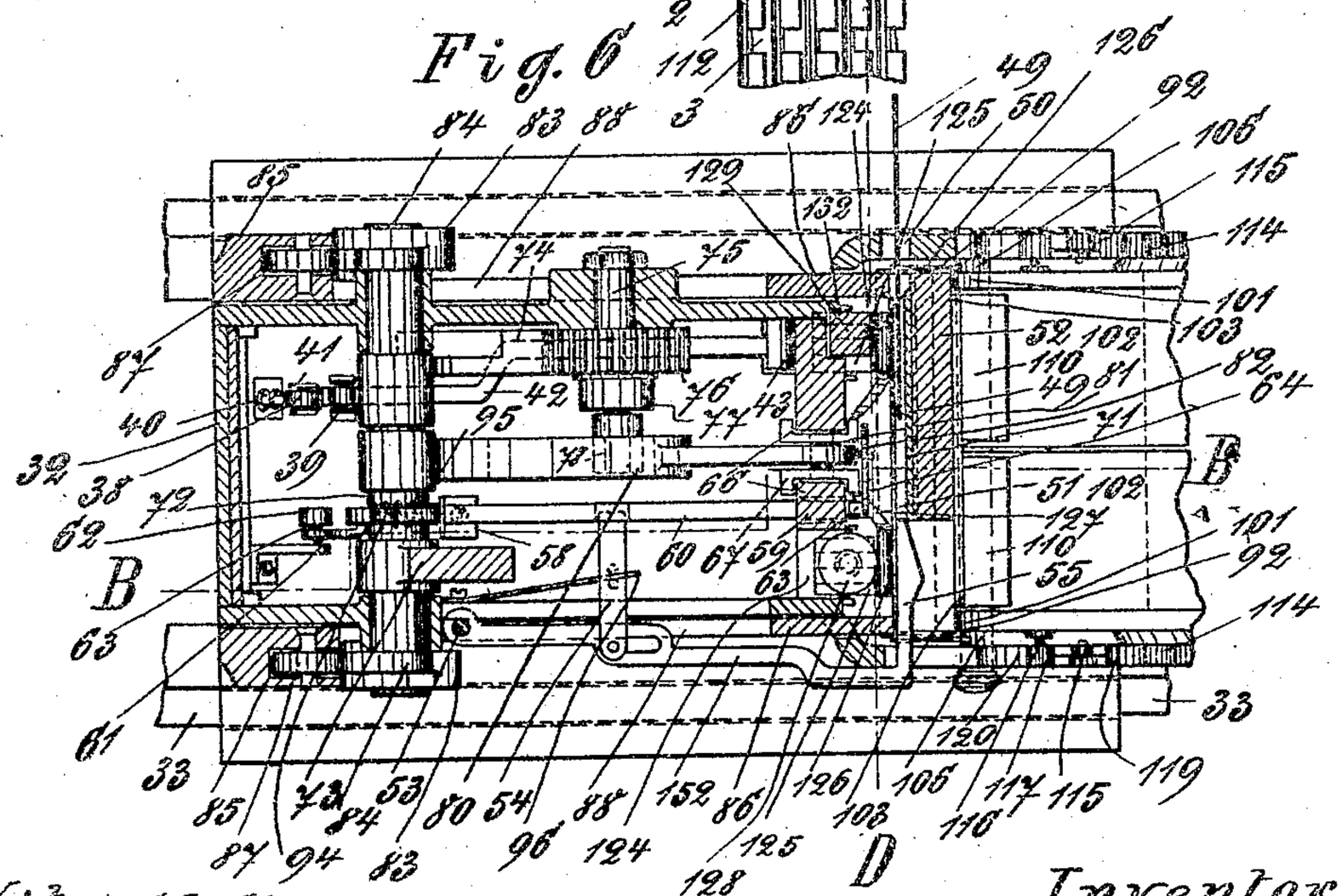


Fig. 6



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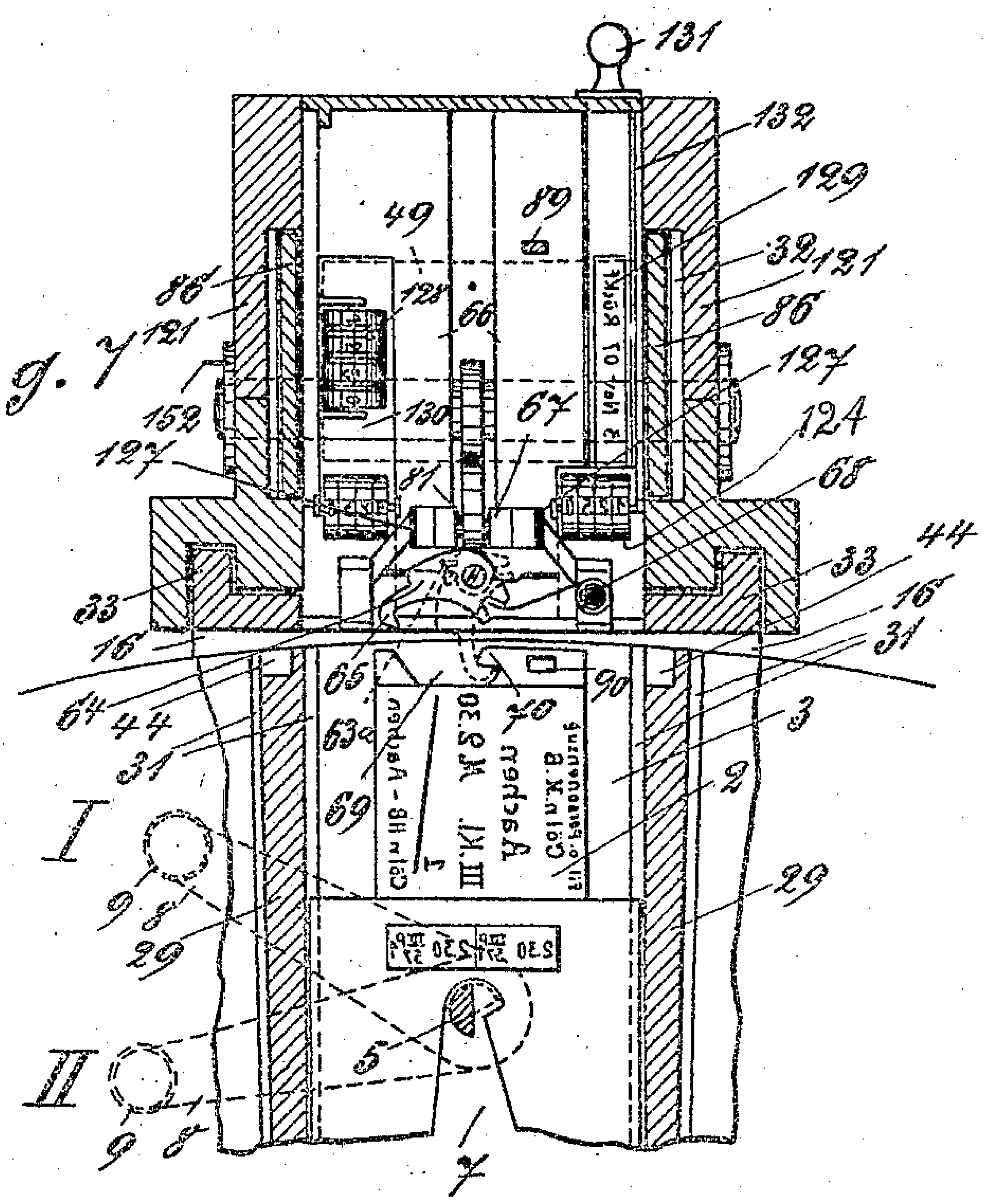

Fig. 7

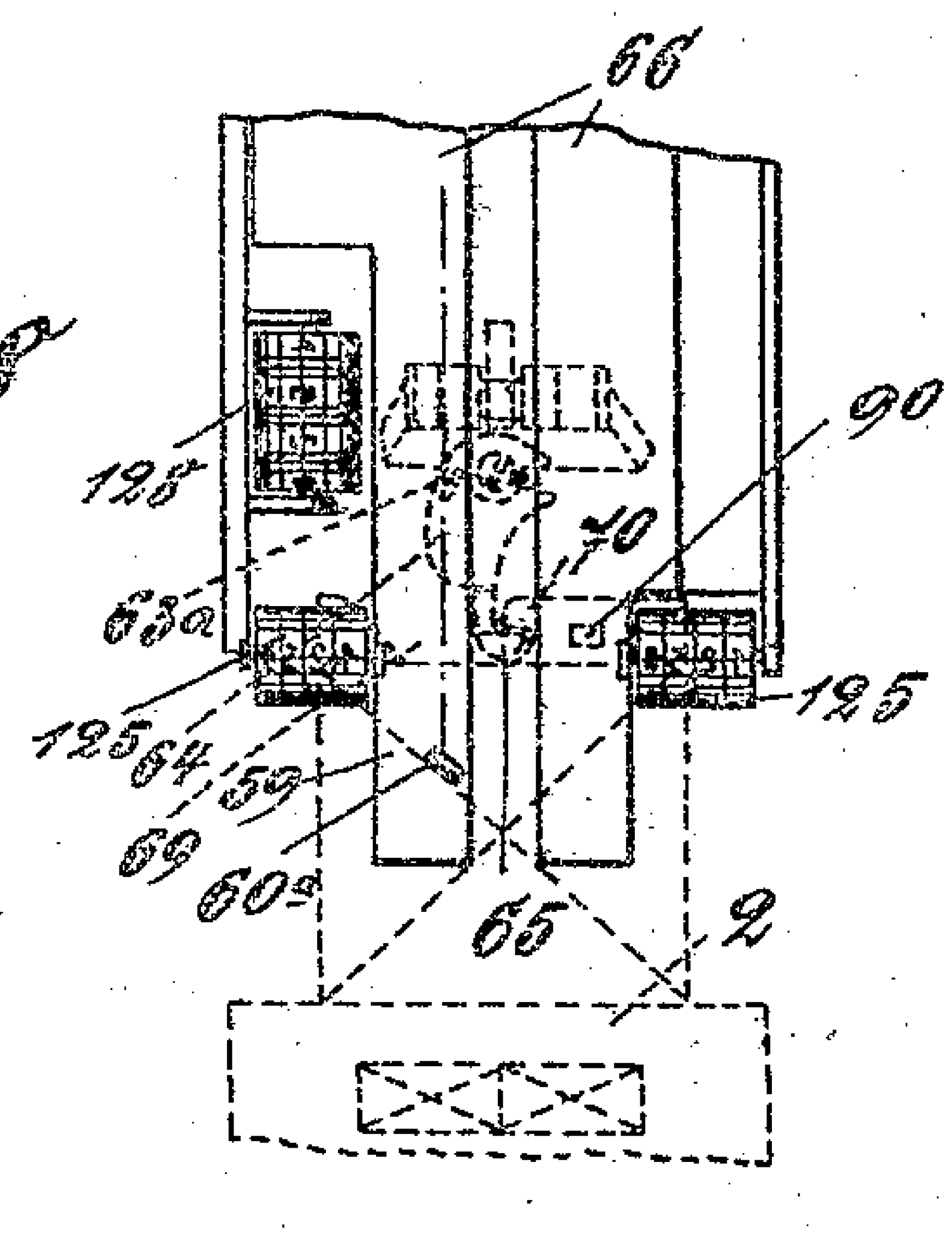

Fig. 8

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UNITED STATES PATENT OFFICE.

HEINRICH FRIEDLEIN, OF KALK, NEAR COLOGNE, GERMANY.

TICKET PRINTING AND REGISTERING APPARATUS.

No. 891,614. Specification of Letters Patent. Patented June 23, 1908.

Application filed December 4, 1907. Serial No. 404,999.

To all whom it may concern:

Be it known that I, HEINRICH FRIEDLEIN, a citizen of the Empire of Germany, residing at Kalk, near Cologne-on-the-Rhine, in the Empire of Germany, have invented a new and useful Ticket Printing and Registering Apparatus, of which the following is a specification.

My invention relates to apparatus for printing and registering railway tickets and the like, in which loose type plates are employed, the several type plates being loosely disposed in separate compartments of a magazine and arranged to be transferred to a printing device when wanted and to be returned to the magazine after the printing.

My invention consists of improvements in apparatus of the described kind, whereby the apparatus is considerably simplified and its operation is greatly facilitated.

The chief improvement consists in rendering the magazine stationary and in so forming it, that it may serve at the same time as a wash basin for the type plates. Thereby the necessity of constantly raising and lowering, also shifting in two directions at right angles to each other of the very heavy magazine is avoided.

Another important improvement consists in disposing the printing device above the magazine and to provide means for shifting it over the magazine in two directions at right angles to each other, so as to select the respective type plate for the required station name, the class and the price of the ticket or the like.

In the preferred mode of execution of the invention a rocking frame is provided and arranged to be moved over the magazine and to support the printing device, in which case the magazine requires to be shaped as a segment of a cylinder. Then the power to be exerted by the official for shifting the printing device over the magazine in the longitudinal and cross directions will be reduced to a minimum.

The printing device is arranged to withdraw, when operated, the respective type plate out of the magazine and to place the same opposite to the platen, then to press the latter with the ticket blank previously inserted against the type plate for producing the impression, after which the printed ticket is ejected and the type plate is returned to the magazine.

Other improvements will be hereinafter fully described and pointed out in the claims.

In the accompanying drawings—Figure 1 is an elevation of the ticket printing and registering apparatus, a part of the rocking frame being broken away and a compartment of the magazine being shown in section, Fig. 2 is a side view of the same, a part of the magazine and the machine frame on the left being shown in section through the line A—A in Fig. 1, Fig. 3 is a plan of a part of the magazine and the rocking frame, Fig. 4 is a detail, which will be referred to later on, Fig. 5 is a longitudinal section on an enlarged scale through the printing device on the broken line B—B in Fig. 6, Fig. 6 is a horizontal section through the same on the broken line C—C in Fig. 5, and shows a part of the magazine below, Fig. 7 is a vertical cross section of the same through the line D—D in Figs. 5 and 6 in the longitudinal direction of the magazine, and Fig. 8 is a part out of Fig. 7, in which certain parts occupy another position.

Similar characters of reference refer to similar parts throughout the several views.

On a suitable frame 30 is placed a magazine 6, which is shaped as a segment of a cylinder and has a bottom 1 and is divided by several, here seven, radial cross partitions 29 into eight compartments 3. The cross walls of the several compartments 3 are provided with grooves 31, in vertical planes parallel to the longitudinal sides of the magazine 6 and in these grooves 31 loose type plates 2 are guided. In each compartment a locking shaft 5 is mounted to rock, which is within made semicylindrical and without provided with an arm 8, the latter terminating in a cylindrical pin 9 (see Fig. 7). All type plates 2 are provided with recesses 7 at bottom and with recesses 69 at top. When the arm 8 of any locking shaft 5 occupies the position marked with II in Fig. 7, the locking shaft 5 will permit the type plates 2 in the respective compartment 3 to be upwardly withdrawn from the magazine 6 or downwardly returned; but when the arm 8 is turned upwards into the position marked with I, the locking shaft 5 will engage in the upper parts of the recesses 7 in all the type plates 2 and thus prevent the latter from shifting.

Fulcrumed at 15 on the machine frame 30, is a rocking frame 16, whose side parts are forked above and are combined together by

means of two parallel horizontal rails 33, 33, which can move freely over the top of the magazine 6. On these rails 33, 33 a printing device to be described later on (see Figs. 5 and 6) is mounted to move in the cross direction of the magazine 6.

The longitudinal side on the left in Fig. 2 of the magazine is provided with two ribs 11, 11 which are concentric with the axis of the rocking frame 16 and form a channel, through which the links of an endless chain 22 can move, every second link being provided with a roller 21 adapted to roll on the lower rib 11 and over two guiding rolls 20, 20. One 12, of these links is specially formed as shown at Fig. 4, it being provided with a curved groove 13 and being rigidly connected in any known manner with the rocking frame 16. The pins 9 of the several arms 8 (Fig. 7) engage in the space between the endless chain 22 and the upper guiding rib 11 or in the curved groove 13 of the link 12. It will be understood, that when the rocking frame is shifted over the magazine 6, it will take along with it the endless chain 22, so that the several arms 8 engaging with their pins 9 between the endless chain 22 and the upper rib 11 will be held in their normal position marked with I in Fig. 7, while that arm 8 whose pin 9 passes through the curved groove 13 will be lowered and again raised. The rocking frame 16 is in a manner to be described later on held in the middle of any compartment 3, so that the arm 8 whose pin 9 engages in the curved groove 13 of the link 12 is turned downwards and therewith also the semicylindrical, locking shaft 5, so as to permit all the type plates 2 in the respective compartment 3 to be withdrawn from the magazine 6, while all the type plates 2 in the other compartments 3 remain locked. To prevent any fraudulent use of the apparatus the rocking frame 16 is provided with an endless chain 141 (see Fig. 3) passing over guiding rollers 140, 140 and the magazine 6 and the casing 32 of the printing device to be presently described is inserted in this endless chain 141. Thus all the type plates 2 not covered with the casing 121 are prevented by the endless chain from being withdrawn out of the magazine 6.

The casing 32 of the printing device is provided with a handle 34, which the operator can seize for shifting the printing device over the rails 33, 33 of the rocking frame 16 in the cross direction of the magazine 6 or with the said frame 16 in the longitudinal direction over the magazine 6. For securing the printing device and therewith the rocking frame 16 in any position, a locking lever 42 is employed, which is mounted within the casing 32 to rock on a pin 39 and is at its free end provided with a nose 43 that can engage in any of the notches 44, 44 in the partitions 29 and end walls of the magazine 6, see Figs. 5 and 7. The locking lever 42 forms one arm of a bell-crank lever, the other arm 41 of which is constantly pressed from left to right in Fig. 5 by a helical spring 40 for pressing the nose 43 of the lever 42 into the notch 44. The upper end of the arm 41 carries a roller 32, which under the pressure of the spring 41 supports at 38 a key 35 that is fulcrumed at 36. When the operator is desirous of shifting the printing device, he seizes the handle 34 and at the same time depresses the key 35 with the ball of his hand, so as to withdraw the nose 43 of the locking lever 42 from the notch 44 and thus to liberate the printing device, whereupon he moves the latter in any direction for placing it over the respective type plate 2 to be used, and then he releases the key 35 and permits the nose 43 to engage in the respective notch 44. For ascertaining the correct position into which the printing device requires to be brought, an indicator 46 is provided on the casing 32 and a turnable prism 47 (see Figs. 1 and 2) is disposed in suitable supports on the rocking frame 16 (see Fig. 2). In correspondence with the eight compartments 3 the prism 47 has four sides, on each of which two rows of station names are shown. In each row the station names are arranged in the same order as the station names on the type plates 2 in the respective compartment 3.

The magazine 6 is shown as provided with a box 48 (Figs. 1 and 2) for holding the ticket blanks 49, but any other reservoir may be provided for the ticket blanks which may be in one color, or in several colors. The casing 32 is provided with a slot 50 (Fig. 2), through which the ticket blank to be printed is inserted (see Fig. 1). This ticket blank during its insertion is adapted to push back the wedge-shaped bent end 55 (Fig. 6) of a lever 152, which latter is fulcrumed at 53 in the casing 32 and is inwardly pressed by a leaf spring 96 that acts on a bolt 54. This bolt 54 engages with a pin at its one end in a slot of the lever 152 and is adapted to periodically engage with its other end in a slot 56 of a cranked rod 60 (Fig. 5) to be referred to later on.

The casing 32 is horizontally divided into halves which can be connected together in any known manner. Two plates 66, 66 are secured in the casing 32 in a vertical cross plane and leave between them a vertical slot, in which a slide 67 is guided. An operating shaft 72 is mounted in the casing 32 to turn and has fastened on it within the casing 32 an operating lever 73, a toothed segment 74 and a cam disk 95, while a slotted controlling lever 80 of a peculiar shape shown at Fig. 5 is mounted loose on the operating shaft 72. In the casing 32 is fastened a pin 75 (Fig. 6) on which a gear wheel 76 with a crank 77 is mounted to turn. The gear wheel 76 meshes with the toothed segment 74 and the pin of the crank 77 carries a roller

78, which engages in the curved slot 79 of the controlling lever 80 and is adapted to roll therein. In the slide 67 above mentioned there is a pin 81, which engages in a slot at the hooked extreme end 82 of the controlling lever 80. It will be seen, that when the operating lever 73 is turned in the direction of the arrow in Fig. 5, the toothed segment 74 will put the gear wheel 76 into rotation, so that the crank 77 by means of its roller 78 will move the controlling lever 80 with the slide 67 upwards into an extreme position indicated by the dotted lines.

On the slide 67 is a pin on which a detent 64 of the shape shown at Fig. 7 is mounted to rock. On the slide 67 is a spiral spring 68 the free end of which engages in a recess of the detent 64 and tends to turn the latter into a position indicated by the dotted lines in Figs. 7 and 8. In this position the detent 64 can engage with its hooked end 65 beneath the hook 70 of any type plate 2 and it will be now obvious that by turning the operating lever 73 in the direction of the arrow in Fig. 5, the respective type plate 2 can be upwardly withdrawn from the magazine 6. The slot 79 of the controlling lever 80 is so shaped as to permit the raised type plate 2 to remain in its highest position while the operating lever 73 is turned a little further for producing an effect to be described later on. One plate 66 (on the left in Fig. 8) is provided with a slot 60ª in which the free end of the cranked rod 60 already mentioned is guided. The other end of this rod 60 is guided in a support 58 and is pivotally connected with a two-armed lever 63, which rocks on a pin 61 and carries on its other arm a roller 62 that is adapted to be actuated by the cam 94 of the cam disk 95 already mentioned. A helical spring 57 surrounding the left end (Fig. 5) of the cranked rod 60 and bearing on the support 58 on the one hand and on the lower arm of the two-armed lever 63 on the other hand tends to push the rod 60 to the left and to press the roller 62 on the cam disk 95. Normally the cranked rod 60 is held in its extreme right position shown at Figs. 5 and 6 by the bolt 54, so that its right end projects from the plate 66. The detent 64 is provided with a lug 63ª which normally bears on the projecting end of the cranked rod 60, so that thereby the detent 64 is held in its normal position shown in full lines in Fig. 7. It will be now obvious, that a ticket blank 49 inserted through the slot 50 of the casing 32 and pushing back the wedge-shaped bent end 55 of the lever 152 will cause the cranked rod 60 to be released by the bolt 54, so that the helical spring 57 pulls the cranked rod 60 to the left in Fig. 5 and thus withdraws the projecting end of the rod 60 from under the lug 63ª, whereupon the detent 64 under the action of the spiral spring 68 turns downwards and engages with its hooked end 65 under the hook 70 of the respective type plate 2, so that the latter can be raised by the detent 64 and the slide 67, the latter being moved upwards in the manner described above.

A U-shaped slide 86 (Fig. 6) is provided, whose side parts pass through slots in the casing 32 (Fig. 7) and are horizontally guided on the sides of the casing, while the cross part 52 serves as a platen of the printing device. The two side parts of the slide 86 have slots 88, through which the parts projecting from the casing 32 pass, so as to permit the reciprocating motion of the slide 86. On the ends of the operating shaft 72 without the casing 32 are fastened two cam disks 83, 83, the cams 84, 84 of which are adapted to act upon two rollers 87, 87, that are turnable in the ends of the side parts of the slide 86, for producing the impression on the ticket blank.

The two plates 66, 66 serve as a table for supporting the type plate 2 during the impression and a frame 51 of any known construction may be provided on the platen 52 for supporting the ticket blank 49, which is inserted through the said slot 50 in the casing 32 and through a suitable slot in one side part of the slide 86. A spring 71 may be provided for holding the inserted ticket blank 49. The platen 52 is at the top provided with a pin 89 (Fig. 5), which can engage through a hole 90 (Fig. 7) of each type plate 2 in a corresponding hole in the right plate 66 in Fig. 7 for preventaig the type plate 2 from shifting during the impression. The left plate 66 in Fig. 7 is provided with a long recess 124, 130, in which two numbering devices 128 and 127 of any known construction are disposed. The right plate 66 is provided with a short recess 124 for a third numbering device 127 and with a groove 132 for a dating stamp 129, which can be inserted from above by means of a handle 131. The dating stamp 129, the numbering device 128 and the upper part of the type on the type plate 2 are for the tickets, while the lower part of the type on the type plate 2 and the two numbering devices 127, 127 are for two separate paper strips of a registering device to be described later on. Within the casing 32 two levers 92 are mounted to rock on pins 91, while their lower ends carry the pins of an inking roller 93, which is adapted to ink any type plate 2 during its upward motion. During the downward motion of the type plate 2 the roller 93 is prevented from inking it by the wedge-shaped end 55 of the lever 152 pushing the levers 92 off. The slide 67 has two arms (see Fig. 7), which carry two small inking rollers 126, 126 (Fig. 8) for inking the two numbering devices 127 and 128 on one side and the second numbering device 127 and the dating stamp 129 on the other side.

The registering part of the apparatus is

constructed as follows: The platen 52 is provided with two hooks 108, (Fig. 5), in which hooked projections 101 on two separate casings 102 engage, while the latter are supported by a bolt 106, which is put through suitable ears on the platen 52 and through tubes 105 made in one piece with the casings 102. The two casings 102 are cylindrical in the upper parts and tail-shaped in their lower parts 104, which latter engage beneath the platen 52. In the mouths of the parts 104 two platens 112 are secured in any known manner, slots being left between them and the upper and lower walls of the mouths. Each casing 102 is at the top provided with a support 107 having a pin 108, on which a registering paper roll 109 is mounted to turn. A second paper roll 113 is provided within each casing 102, and the paper strip 110 passes from the upper roll 109 through a slot 111 into the casing 102, over the tube 105, through the upper slot in the part 104, over the platen 112, through the lower slot and over the tube 105 to the lower roll 113. The latter is fed in the following manner. A ratchet wheel 114 is fastened on the shaft of each paper roll 113 without the casing 102, and on the latter is fastened a pin 116, on which a bent lever 115, 117 is mounted to rock. The horizontal arm 115 of this lever carries a pawl 119, which engages in the ratchet wheel 114 and is pressed by a leaf spring 118. The vertical arm 117 is rounded off at its lower end and engages in a recess 120 in the side wall of the casing 32. It will be now seen, that during the motion of the slide 86 with the two casings 102, 102 in either direction the two bent levers 117, 115 will be rocked for moving the two pawls 119 over the backs of one tooth of each ratchet wheel 114 or for feeding the two ratchet wheels 114. A pawl 122 or its equivalent is disposed for checking the return of each ratchet wheel 114. The paper strip 110 in one casing 102 is for the official, while that in the other casing 102 is for the superintendent and should be made in any known manner inaccessible for the official.

The ticket printing and registering apparatus described is operated as follows:

For printing a ticket for a certain destination the official so adjusts the prism 47 as to place the respective row of station names among which the destination is found opposite to the indicator 46. Then he seizes the handle 34 of the printing device and depresses the key 35 with the ball of his hand for withdrawing the nose 43 of the locking lever 42 from the respective notch 44 and thus liberating both the rocking frame 16 and the printing device. He thereupon so moves the rocking frame 16 as to bring it into the plane of the compartment 3 carrying the same number or sign as the row of station names on the prism 47 and at the same time he shifts the printing device over the rails 33, 33 into such a position, in which the indicator 46 points at the desired station name, and at last he releases the key 35 to permit the nose 43 of the locking lever 42 to engage in the respective notch 44. Thus the printing device is adjusted. In the manner described above the endless chain 22, is taken along with by the rocking frame 16, so that the curve 13 in the link 12 will have acted upon the pin 9 of the respective arm 8 for turning the semi-cylindrical shaft 5 and thereby releasing all the type plates 2 in the compartment 3, over which the printing device is placed. The official now takes a ticket blank 49 out of the box 48 and inserts it through the slot 50 of the casing 32, and in the manner explained above he thereby actuates the lever 152 for withdrawing the bolt 54 from the slot 56 of the cranked rod 60, so that the latter is liberated and pulled by the spring 57 to withdraw its free end from under the lug 63^a, whereupon the detent 64 under the action of the spiral spring 68 turns downwards and engages with its hooked end 65 under the hook 70 of the respective type plate 2. Thereupon the official turns the operating lever 73 in the direction of the arrow in Fig. 5 for first raising the type plate 2 out of the magazine 6 while at the same time inking it by means of the inking roller 93 and also inking the numbering devices 127, 127 and 128 and the dating stamp 129 by means of the two inking rollers 126, 126, then pressing the platen 52 with the ticket blank 49 against the type plate 2, the dating stamp 129 and the numbering device 128, also pressing the two platens 112 with the two paper strips 110, 110 against the lower part of the type on the type plate 2 and against the two numbering devices 127, 127. In this manner the impression on the ticket and on the two registering paper strips 110, 110 is produced. During the impression the cam 94 of the cam disk 95 has acted upon the roller 62 for pushing he cranked rod 60 against the tension of the helical spring 57. When the official turns the operating lever 73 in the opposite direction, very soon the printed ticket 49 is released by the platen 52, whereupon it is ejected by the lever 152 under the action of the leaf spring 96, while at the same time the bolt 54 engages in the slot 56 of the cranked rod 60 and prevents the latter from shifting. The wedge-shaped end 55 of the lever 152 has pushed the two levers 92 off and thereby put the inking roller 93 out of the path of the type plate 2. The controlling lever 80 with the slide 67 and the type plate 2 being lowered, the lug 63^a of the detent 64 will strike the projecting end of the cranked rod 60 and thereby the detent 64

will be turned upwards into its normal position shown at Fig. 7, so that it releases the hook 70 of the type plate 2.

The numbering devices 127, 127 and 128 are fed one number forward during the return of the platen as usual and in any known manner and also the two registering paper strips 110, 110 are fed.

It is an advantage, that the several compartments 3 of the magazine 6 can serve as wash-basins, as it is thereby rendered possible to clean the type plates 2 from time to time from the traces of color by merely admitting water to the compartments and allowing it to escape through suitable known outlets (not shown).

The ticket printing and registering apparatus may be varied in many respects without departing from the spirit of my invention.

I claim:

1. In a ticket printing apparatus of the class described, the combination with a magazine open at the top and provided with vertical grooves, of loose type plates separately guided in the grooves of said magazine, a printing device, means for shifting said printing device over said magazine in two directions at right angles to each other, and means for positioning said printing device, said printing device being adapted to withdraw any of the loose type plates from said magazine, to print a ticket, and to return the type plate to said magazine.

2. In a ticket printing apparatus of the class described, the combination with a magazine open at the top and provided with vertical grooves, it being adapted to serve as a wash-basin, of loose type plates separately guided in the grooves of said magazine, a printing device, means for shifting said printing device over said magazine in two directions at right angles to each other, and means for positioning said printing device, said printing device being adapted to withdraw any of the loose type plates from said magazine, to print a ticket, and to return the type plate to said magazine.

3. In a ticket printing apparatus of the class described, the combination with a frame, of a magazine on said frame and open at the top and shaped as a segment of a cylinder, it being divided by radial cross partitions into a series of compartments which are all provided with grooves in vertical planes parallel to the longitudinal sides of the magazine, of loose type plates separately guided in the grooves of said magazine, a rocking frame mounted in said frame to rock and comprising rails over said magazine in its cross direction, and a printing device adapted to be shifted on the rails of said rocking frame and with the latter over said magazine, said printing device being adapted to withdraw any of the loose type plates from said magazine, to print a ticket, and to return the type plate to said magazine.

4. In a ticket printing apparatus of the class described, the combination with a frame, of a magazine on said frame and open at the top and shaped as a segment of a cylinder, it being divided by radial cross partitions into a series of compartments which are all provided with grooves in vertical planes parallel to the longitudinal sides of the magazine and with notches, of loose type plates separately guided in the grooves of said magazine, a rocking frame mounted in said frame to rock and comprising rails over said magazine in its cross direction, a printing device adapted to be shifted on the rails of said rocking frame and with the latter over said magazine, a locking lever in said printing device and adapted to engage in any of the notches of said magazine, and means for operating said locking lever, said printing device being adapted to withdraw any of the loose type plates from said magazine, to print a ticket and to return the type plate to said magazine.

5. In a ticket printing apparatus of the class described, the combination with a magazine open at the top and divided by cross partitions into a series of compartments which are all provided with grooves in vertical planes parallel to the longitudinal sides of the magazine, of loose type plates separately guided in the grooves of said magazine and each provided with a recess at the bottom, locking shafts turnable in the several compartments of said magazine and passing through the recesses of said type plates and adapted to lock the latter in one position and to release them in another position, a frame movable over said magazine in its longitudinal direction, means controlled from said frame for so operating said locking shafts, that only the type plates in the compartment beneath the frame are released, while the type plates in the other compartments remain locked, a printing device movable on said frame in the cross direction of said magazine, and means for positioning said printing device and said frame, said printing device being adapted to withdraw any of the type plates from said magazine, to print a ticket, and to return the type plate to said magazine.

6. In a ticket printing apparatus of the class described, the combination with a frame, of a magazine on said frame and open at the top and shaped as a segment of a cylinder, it being divided by radial cross partitions into a series of compartments which are all provided with grooves in vertical planes parallel to the longitudinal sides of the magazine and with notches, of loose type plates separately guided in the grooves of said

magazine and each provided with a recess at the bottom, locking shafts turnable in the several compartments of said magazine and passing through the recesses of said type plates and adapted to lock the latter in one position and to release them in another position, a rocking frame mounted in said frame to rock and comprising rails over said magazine in its cross direction, a printing device adapted to be shifted on the rails of said rocking frame and with the latter over said magazine, a locking lever in said printing device and adapted to engage in any of the notches of said magazine, means for operating said locking lever, an endless chain guided in said frame and connected with said rocking frame and adapted to so operate said locking shafts, that only the type plates in the compartment beneath the rails of the rocking frame are released, while the type plates in the other compartments remain locked, a printing device movable on the rails of said rocking frame, and an endless chain guided in said rocking frame and including said printing device and adapted to prevent the released type plates without the printing device from shifting, said printing device being adapted to withdraw any of the type plates from said magazine, to print a ticket and to return the type plate to said magazine.

7. In a ticket printing apparatus of the class described, the combination with a frame, of a magazine on said frame and open at the top and shaped as a segment of a cylinder, it being divided by radial cross partitions into a series of compartments which are all provided with grooves in vertical planes parallel to the longitudinal sides of the magazine and with notches, of loose type plates separately guided in the grooves of said magazine and each provided with a hook at the top, a rocking frame mounted in said frame to rock and comprising rails over said magazine in its cross direction, means controlled from said rocking frame for releasing the type plates in the compartment thereunder and locking the type plates in the other compartments, a printing device adapted to be shifted on the rails of said rocking frame and with the latter over said magazine, a locking lever in said printing device and adapted to engage in any of the notches of said magazine, means for operating said locking lever, a slide vertically guided in said printing device, a spring-pressed detent on said slide and normally locked, means controlled from the ticket blank inserted in said printing device for releasing said spring-pressed detent and allowing it to engage the hook of the type plate below, and means in said printing device for withdrawing with the aid of said slide and said detent any of the type plates from said magazine, printing a ticket and returning the type plate to said magazine, while turning back said detent to its normal position.

8. In a ticket printing and registering apparatus of the class described, the combination with a frame, of a magazine on said frame and open at the top and shaped as a segment of a cylinder, it being divided by radial cross partitions into a series of compartments which are all provided with grooves in vertical planes parallel to the longitudinal sides of the magazine, of loose type plates separately guided in the grooves of said magazine, a rocking frame mounted in said frame to rock and comprising rails over said magazine in its cross direction, a printing device adapted to be shifted on the rails of said rocking frame and with the latter over said magazine, said printing device comprising a casing and a platen and adapted to withdraw any of the loose type plates from said magazine for printing, and to return the same after the printing to said magazine, two casings attached to the platen of said printing device and comprising two small platens beneath said platen, two pairs of paper rolls connected with said two casings, each roll of each pair carrying a strip passing from one paper roll over the small platen to the other paper roll, two feed mechanisms operated by the relative motion of said platen with regard to the casing of said printing device for feeding said strips, and numbering and dating devices in said printing device.

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Witnesses:
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LOUIS VANDORN.