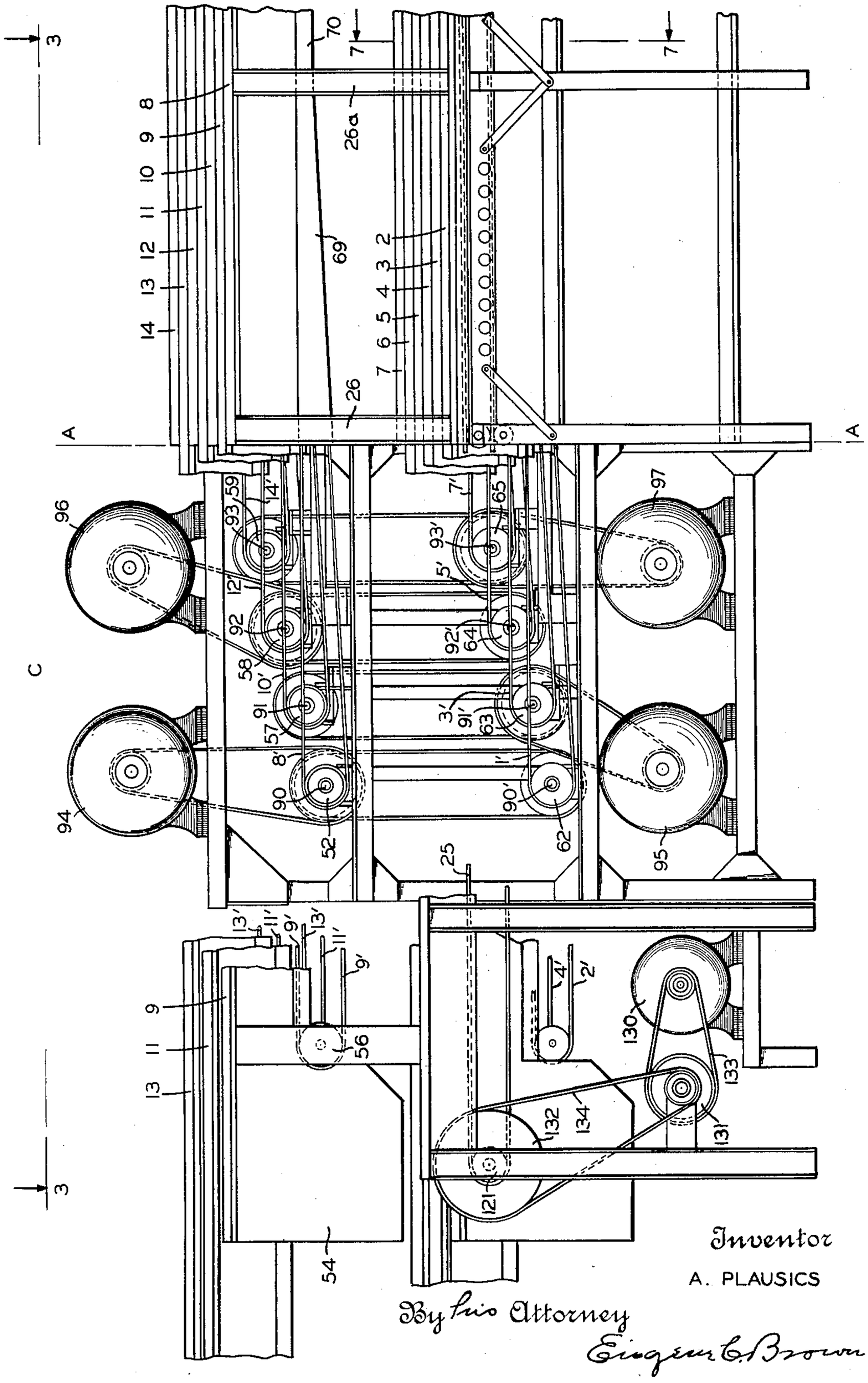
March 13, 1934. A. PLAUSICS 1,950,812

DISTRIBUTING CENTER

Filed Sept. 27, 1930 8 Sheets-Sheet 1

FIG. 1



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By his Attorney

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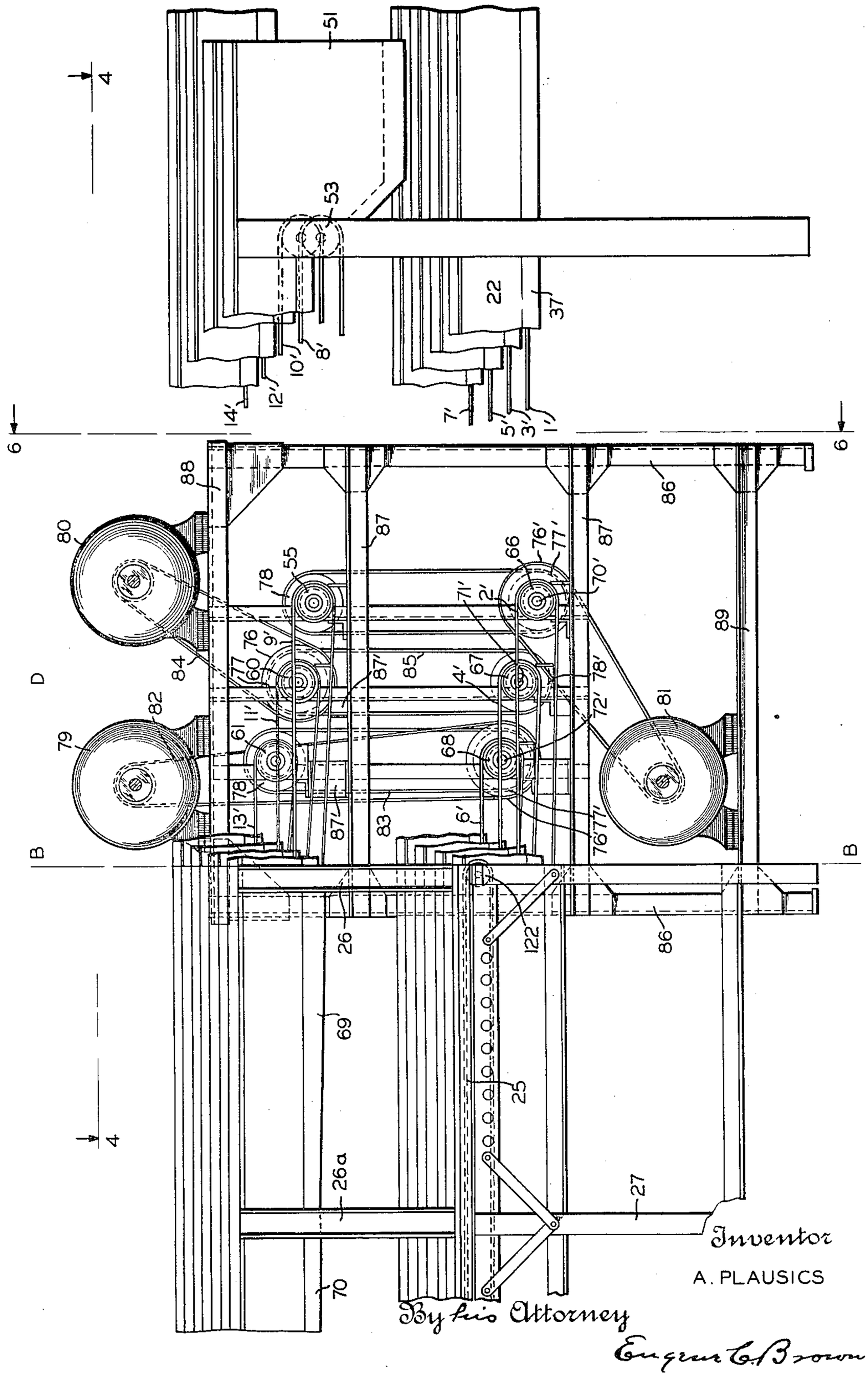
FIG. 2



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Filed Sept. 27, 1930 8 Sheets-Sheet 3

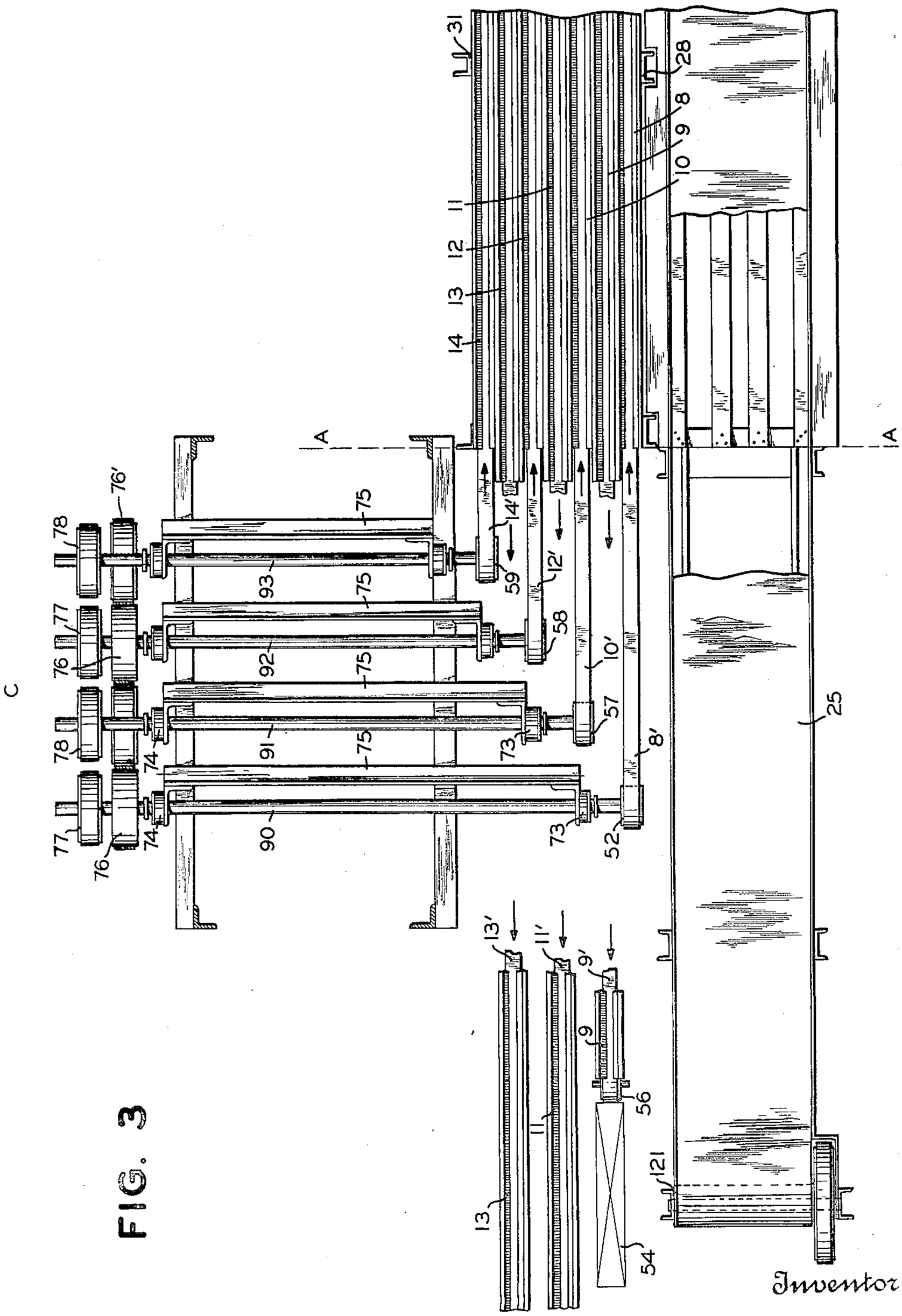

FIG. 3

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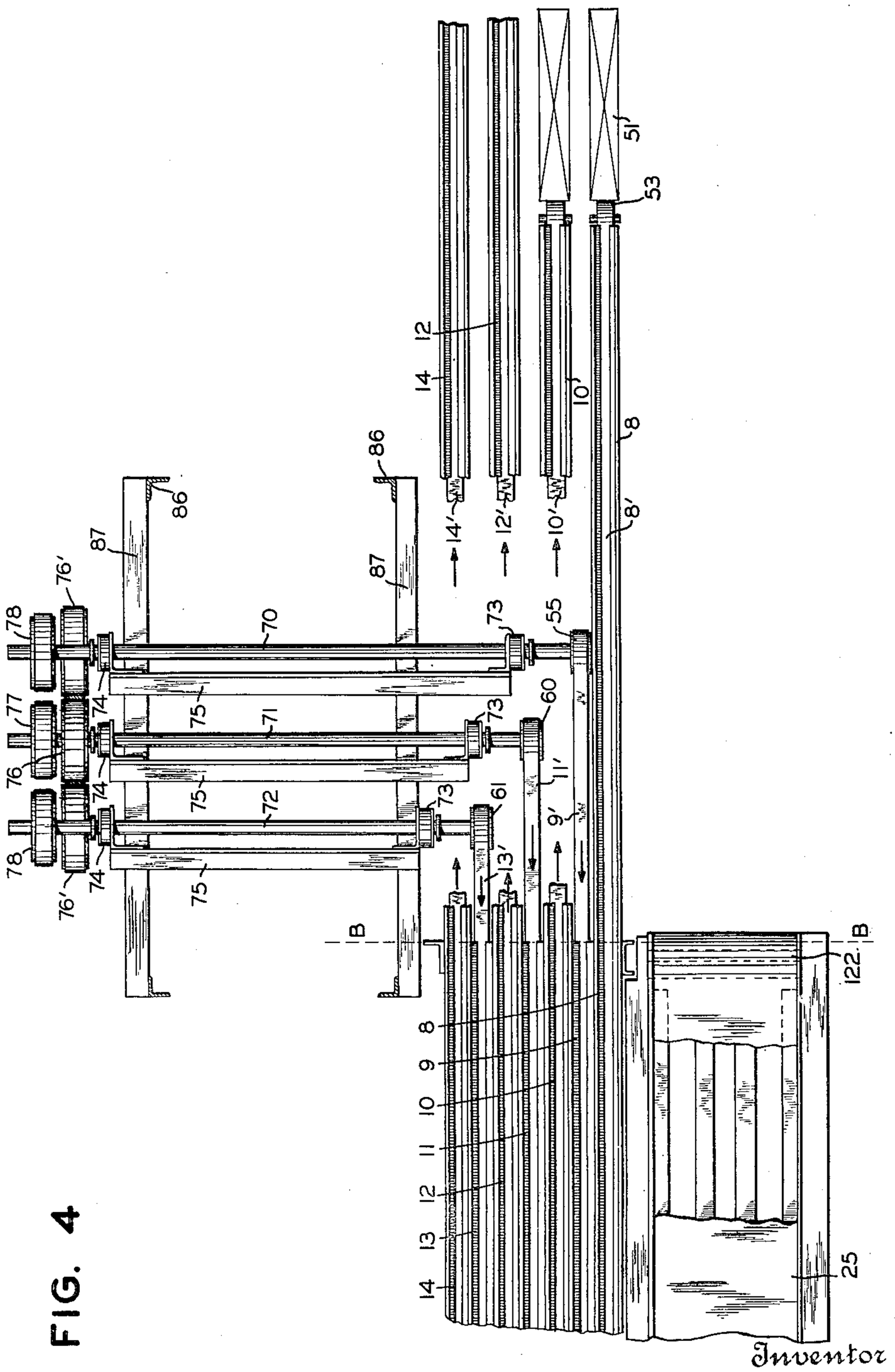

FIG. 4

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FIG. 5

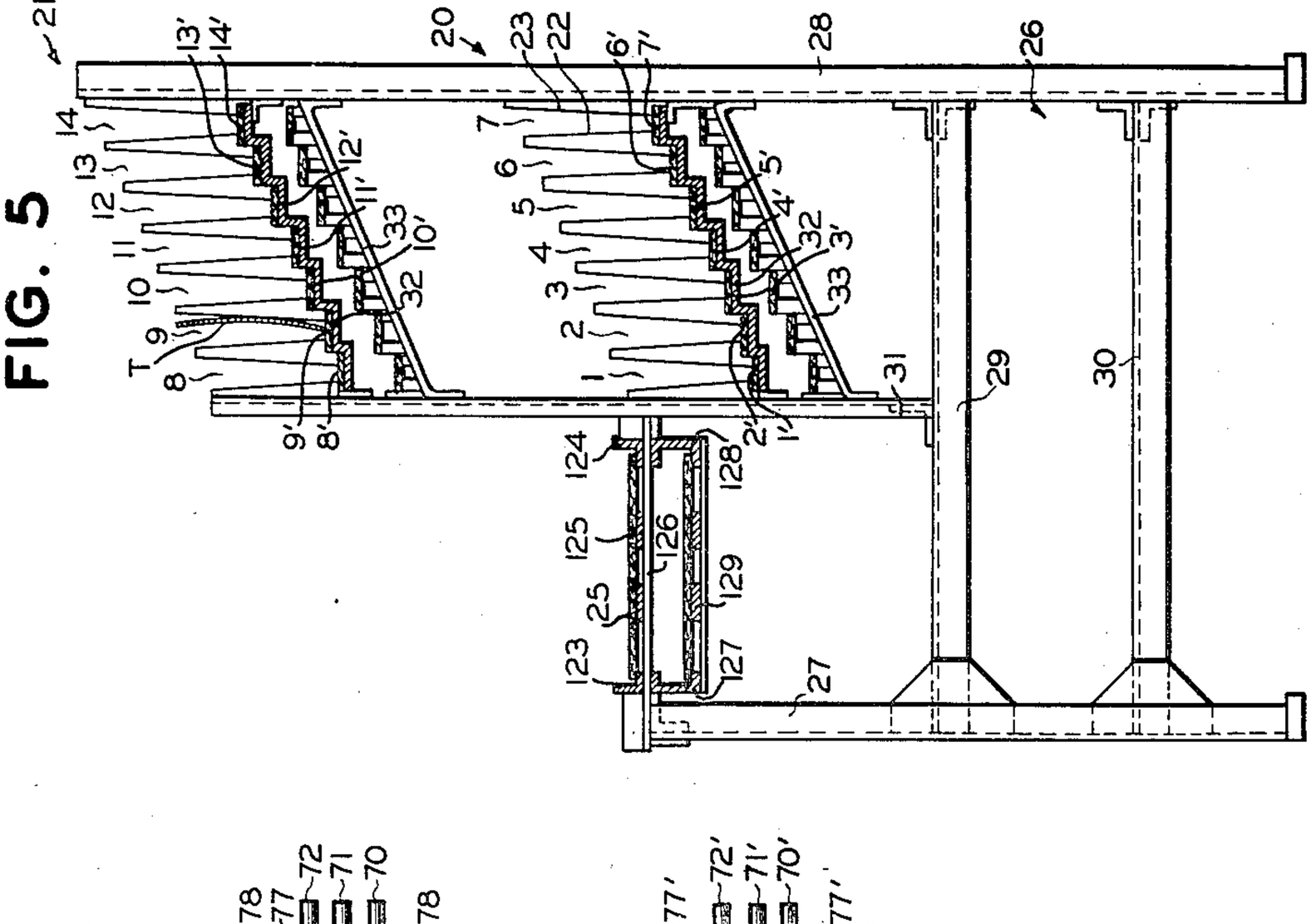
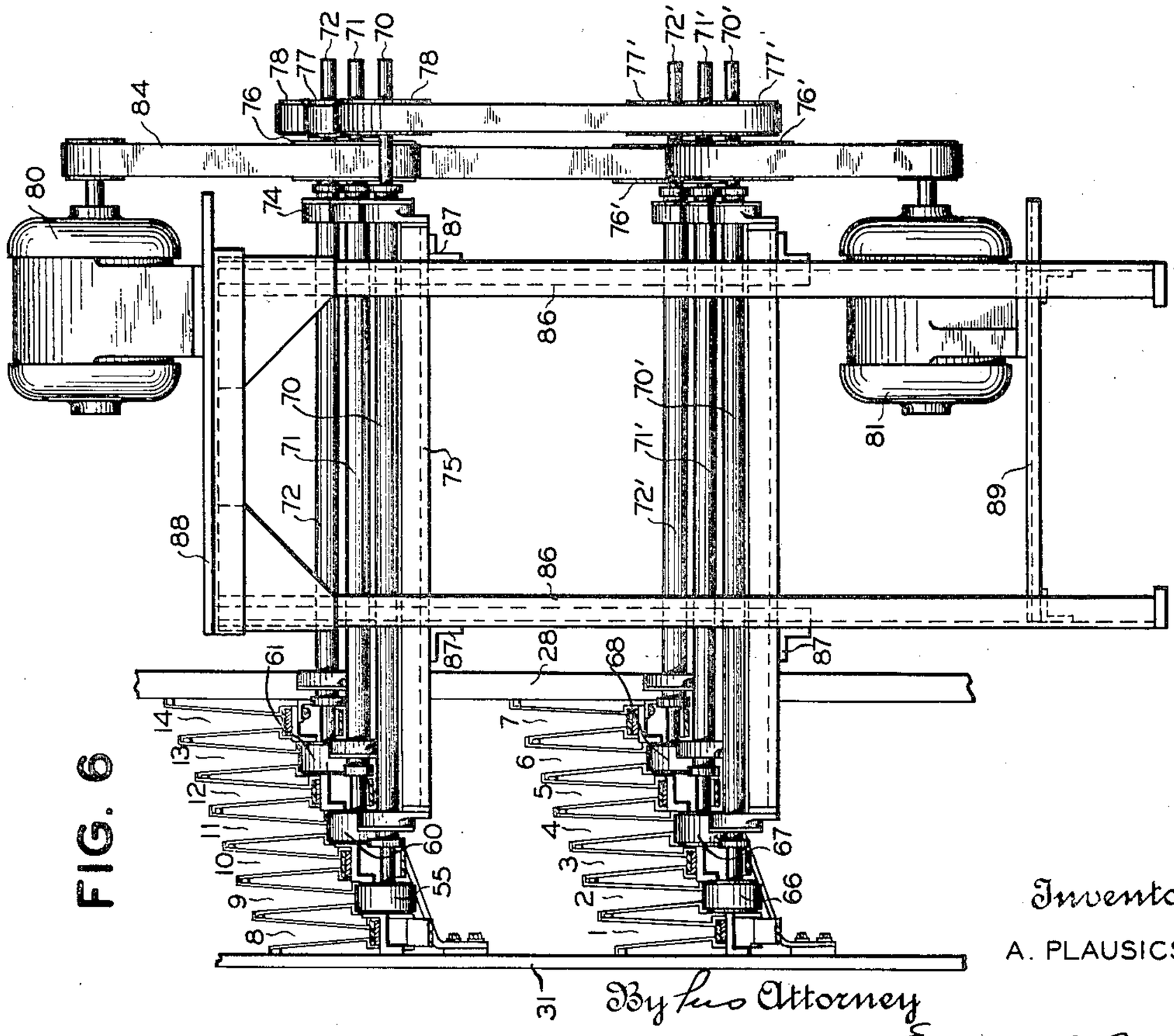


FIG. 6



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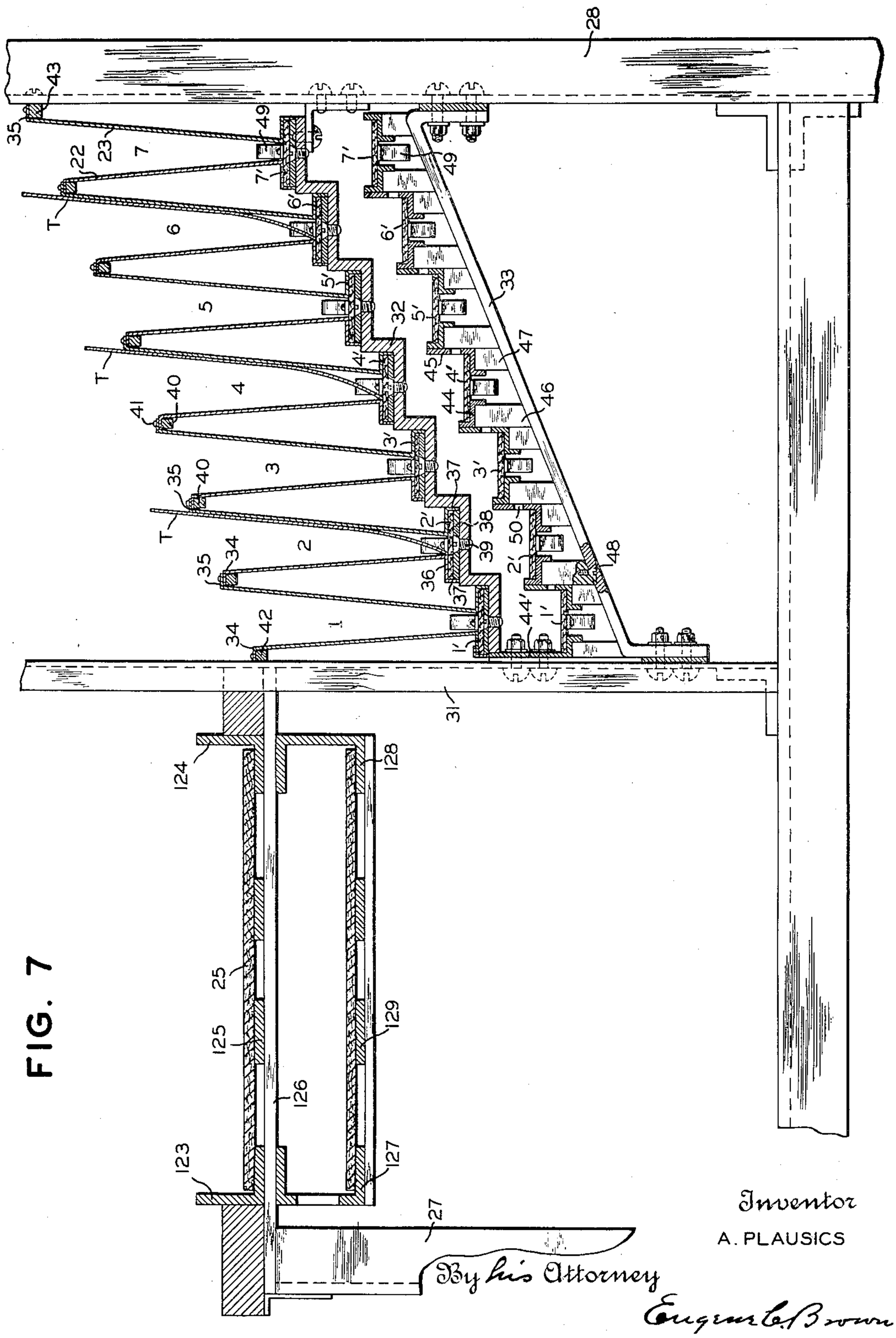

FIG. 7

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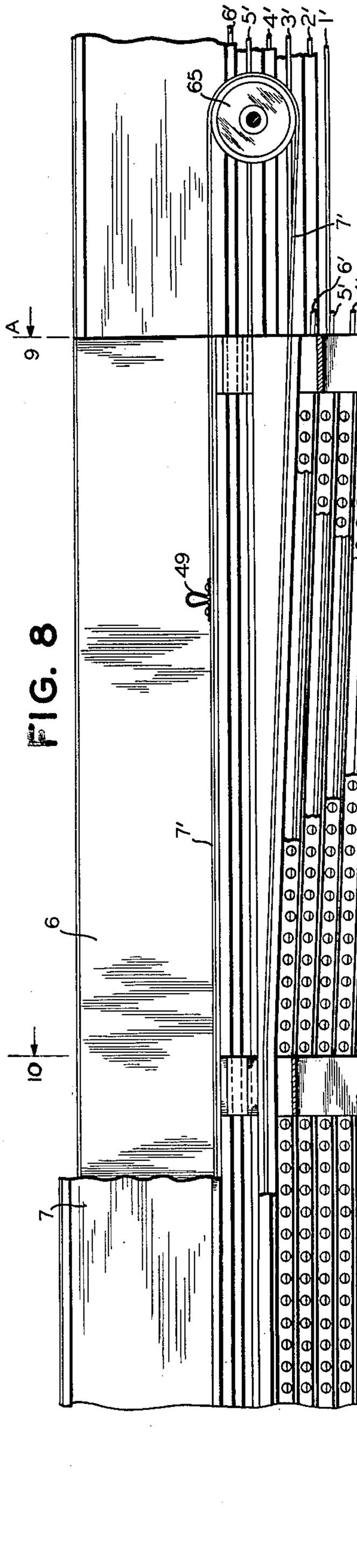

FIG. 8

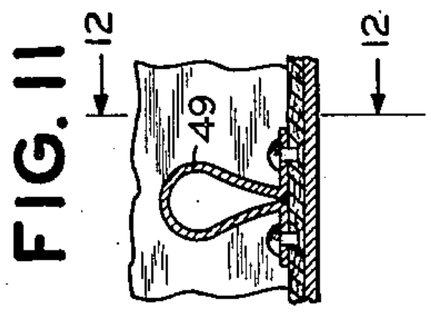

FIG. 11

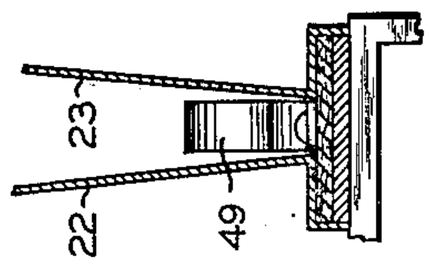

FIG. 12

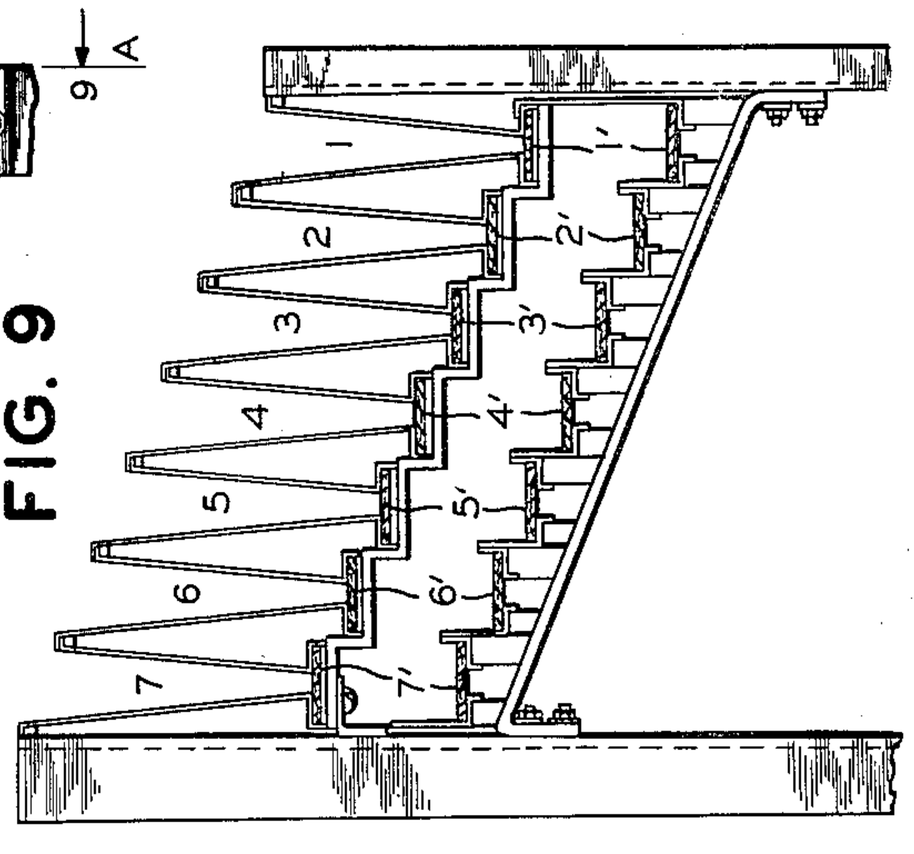

FIG. 9

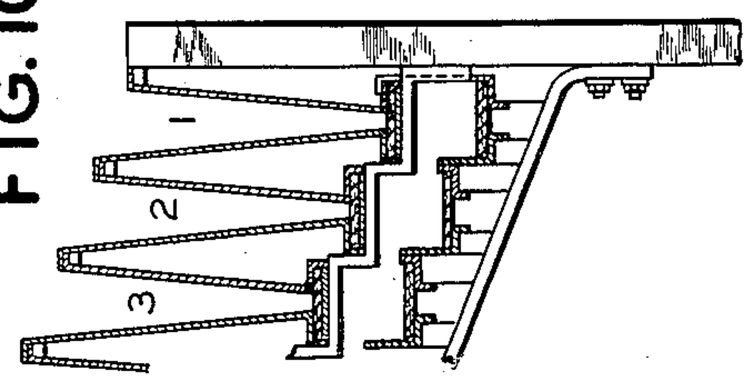

FIG. 10

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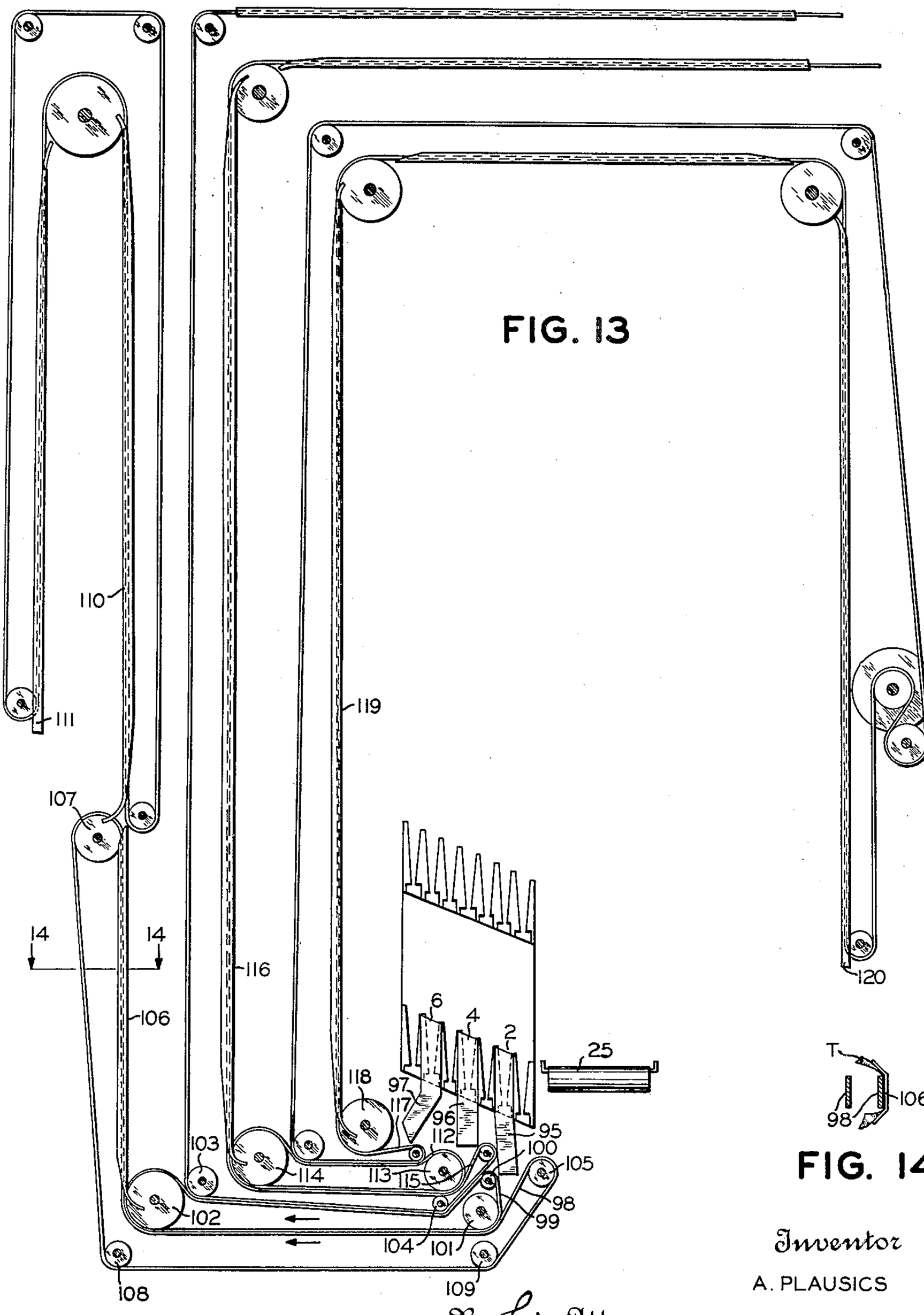

FIG. 13

FIG. 14

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Patented Mar. 13, 1934 1,950,812

UNITED STATES PATENT OFFICE

1,950,812

DISTRIBUTING CENTER

Alexander Plausics, New York, N. Y., assignor to The Western Union Telegraph Company, New York, N. Y., a corporation of New York

Application September 27, 1930, Serial No. 484,882

16 Claims. (Cl. 198—42)

This invention relates to a distributing center for sheet material such as telegrams, letters, and the like.

In large central telegraph offices telegrams arriving from various sources as from the telephone receiving department, commercial receiving office, or branch offices, either by wire or pneumatic tubes for telegraphic transmission, or from distant stations for retransmission or local distribution, are sent to one or more distributing centers at which point they are sorted by routing clerks and routed over a system of conveyors to the proper telegraph operating position or to the messenger or telephone delivery department. All telegrams passing into or out of the telegraph office pass through these distributing centers.

One form of distributing center mainly used heretofore comprises a slow moving flat belt on which the messages arriving at the center are deposited, the belt conveying the messages in front of the routing clerks. The messages are removed from the belt by the routing clerks, sorted and deposited upon other horizontal belts which carry them to their proper destination within the office. These latter belts usually operate at a higher speed and are arranged in tiers. The number of such belts, which may be so arranged one above the other within the reach of the sorting clerks, is limited to four or five, thus restricting the routing to a corresponding number of groups of circuits or other points of distribution. In a large office, however, it is desirable to route the messages to a much larger number of groups of circuits or points within the office.

In a large telegraph office, in addition to the local or city circuits, there are a multitude of trunk line circuits terminating at the office. These trunk lines are grouped together generally geographically and each group of circuits is fed from one drop or conveyor from the distributing center. As a typical illustration at a telegraph office in New York, all circuits terminating at Bangor, Boston, Portland, Providence, Springfield, and Worcester, may be grouped in the same part of the operating room and all messages destined for these places will be deposited on the particular conveyor belt which delivers to this particular part of the operating room. Similarly, circuits terminating at Atlanta, Huntington, Jacksonville, Miami, Tampa, and West Palm Beach, may be grouped adjacent each other in the operating room and provided with one conveyor extending from the distributing center.

Generally speaking, the greater the number of such groupings which may be fed from the distributing center by individual conveyors, the more efficient and rapid the service will be, since each conveyor will have a smaller number of messages to carry and less sorting will be required at the operating positions. In large offices two separate distributing centers may be employed, one for city or local messages and the other for trunk line circuits.

One of the objects of the present invention therefore, is to provide a distributing center having facilities for a large number of separate routings.

Another object is to provide a conveyor system which is compact and which has a large number of separate conveyors each disposed within reach of each of a large number of routing clerks.

Other and more specific objects and advantages will hereinafter appear.

In accordance with my invention I employ for the routing conveyors a plurality of V-trough conveyors of the general type shown and described in a copending application of F. E. d'Humy, et al., Serial No. 350,751, filed March 13, 1929, and entitled "Belt conveyors". Briefly, the V-trough conveyor consists of a relatively narrow endless belt operating in the base of a guideway of substantially V-shape, the telegrams or other articles being conveyed along the trough in a substantial vertical or on edge position. We arrange the V-trough conveyor in tiers, each tier consisting of a group of V-troughs disposed back to back and stepped upwardly from the front to the rear. Individual belts are disposed in the base of each trough, the alternate belts traveling in opposite directions and discharging at the opposite ends of the conveyors into other higher speed conveyors extending to the various groups of circuits or distributing points. A slow moving feeding belt extends along the front of the routing conveyors before which sorting clerks are positioned. Incoming messages are deposited upon the slow moving belt and carried past the sorting clerks, who remove them from the belt, sort them and place them in the proper V-trough conveyor.

The invention further resides in the particular combination and arrangement of the parts, and the driving and discharge mechanism therefor, as will appear from the following detailed description, reference being had to the accompanying drawings in which:

Figures 1 and 2 are continuation front elevational views of a distributing center constructed in accordance with our invention;

Figures 3 and 4 are continuation plan views of the distributing center;

Figure 5 is a vertical sectional view somewhat diagrammatic, showing the relation of the various conveyors;

Figure 6 is a vertical sectional view on the line 6—6 of Figure 2, showing the belt driving mechanism at one end of the apparatus;

Figure 7 is a vertical sectional view of the horizontal slow moving belt and the lower tier of V-trough conveyors substantially on the line 7—7 of Figure 1;

Figure 8 is a rear elevation, partly in sections, of an end portion of the conveyor;

Figure 9 is a vertical sectional view on the line 9—9 of Figure 8;

Figure 10 is a fragmentary vertical sectional view on the line 10—10 of Figure 8;

Figure 11 is a fragmentary longitudinal section of one of the V-trough conveyors showing a clearing out strap for the conveyor;

Figure 12 is a transverse section on the line 12—12 of Figure 11;

Figure 13 is a diagrammatic view showing the discharge from the V-trough conveyors into a high speed drag conveyor system, and

Figure 14 is a sectional view on the line 14—14 of Figure 13.

Referring first to Figure 5 the distributing center includes two tiers 20 and 21 of V-trough conveyors, each tier consisting of seven distributing conveyors, each conveyor comprising diverging side walls 22 and 23 at the base of which a belt is adapted to travel. Beginning with the foremost V-trough conveyor in the lower tier they are numbered consecutively as 1 to 14, the belts being designated by corresponding numerals primed. The message blanks T are carried along the troughs by the belts 1′ to 14′ in a substantially vertical or on edge position. A slow moving wide horizontal belt 25 extends along the front of the tiers 20 and 21 parallel thereto; the V-trough conveyors and the horizontal belt conveyor being supported on an H-shaped frame 26.

The messages to be routed are deposited upon the belt 25 and are carried past a plurality of sorting clerks seated along the belt 25, who remove the messages from the belt, sort them and place them in the proper V-trough conveyor. Each of the V-trough conveyors terminates or connects with another conveyor terminating at a particular group of circuits or other point at which a particular group of messages are to be further handled.

The dimensions of the conveyor are such that each V-trough conveyor may be readily reached by an operator seated in front of the belt 25 and the vertical space between the upper and lower tiers is sufficient to enable a message to be readily deposited in any conveyor of the lower tier.

The V-trough conveyors 1 to 14 and the slow moving belt 25 may be of any desired length, depending upon the number of messages to be sorted and the number of clerks required, the main or sorting portion thereof being shown in Figures 1 and 2 as extending from the line A—A (in Figure 1) to the line B—B (Figure 2). This portion of the conveyor system comprises a number of spaced H-shaped supporting frames 26 across which the conveyors extend. The frames 26 are preferably relatively close together with sufficient distance therebetween to permit one sorting clerk to be positioned between each pair of frames.

As shown by the arrows in Figures 3 and 4 the alternate belts travel in opposite directions and discharge at the opposite ends of the conveyor mechanism. The belts are driven by driving mechanisms C and D disposed beyond the lines A—A and B—B, respectively, at each side of the main portion of the conveyor. The odd numbered belts of the lower tier and the even numbered belts of the upper tier are driven by the mechanism C at the left end of the conveyor and discharge at the opposite end thereof. The remaining belts are driven by the mechanism D at the right end of the conveyor and discharge at the left end thereof, as will subsequently more fully appear.

The H-shaped frames 26 comprise two upright angles 27 and 28 (Figure 5) resting upon the floor, cross braces 29 and 30 and a vertical channel member 31 extending upwardly from substantially the midpoint of cross brace 29. A stepped support 32 and a sloping support 33 for each tier of conveyors extend between the upright members 28 and 31 and are secured to the uprights in any convenient manner. They serve respectively to support the V-troughs and upper runs of the belts and the lower or return runs thereof.

Each V-trough conveyor consists of the front wall member 22 and the rear wall member 23 diverging upwardly and being bent outwardly at their upper edges to form a forwardly extending flange 34 and a rearwardly extending flange 35 (Figure 7). At the lower ends the side walls are bent horizontally outwardly, at 36 and vertically downwardly, at 37, the vertical portion 37 being secured to the sides of a rail 38 thus forming a substantially rectangular housing through which the belt passes, the edges of the belt being overhung by the horizontal portions 36. Individual conveyors are secured to the stepped supports 32 by screws 39 passing through the rails 38. The rear wall 23 of each conveyor extends higher than the front wall 22, the rear flange 35 of one conveyor overlying the forward flange 34 of the adjacent conveyor, both flanges being secured to a longitudinally extending stiffening rod 40 by screws 41. The flange 34 of the foremost conveyor is also secured to a rod 42 carried by the upright channel 31 and the flange 35 of the rearmost conveyor is similarly secured to a rod 43 fastened to the upright angle 28.

The return runs of the belts 1′ to 14′ are supported on spaced Z-shaped rails 44 and 45 mounted upon blocks 46 and 47 carried on the cross support 33 by screws 48. The front rail 44′ of the first troughs 1 and 8 extend upwardly to close the space between the upper and lower runs of the belt. The belts are provided with clearing-out straps or loops 49 of leather or other suitable material (Figures 7, 11 and 12) which engage any articles lodged in the conveyor trough to move them along the trough. The clearing-out straps are of a width to ride between the walls of the trough and on the return run of the belt they suspend from the belt between the spaced rails 44 and 45. Blocks 46 and 47 elevate the rails sufficiently above member 33 to prevent interference with the clearing-out members, as shown in Figure 7. The rear rails 45 are provided with a longitudinal series of perforations 50 through which the space between the upper and lower runs of the belt may be inspected for lost messages. The perforations 50 are best seen in Figure 8.

Referring to Figures 1 to 4 it will be seen that the trough 8, for instance, extends from the line A—A to the line B—B, thence past the driving mechanism D terminating at a discharge

chute 51. The corresponding belt 8' extends from the driving roller 52 horizontally to the line A—A, thence through the base of the V-trough to adjacent the discharge chute 51 at which point it passes around an idler pulley 53 and returns on the rails 44 and 45, as shown in Figure 7, to the lower side of the driving roller 52. The adjacent conveyor 9 starts at the line B—B extending to the left past the driving mechanism C and terminating at the discharge chute 54, the belt 9' extending around the driving roller 55 of the driving mechanism D through the base of the trough and around the idler pulley 56 adjacent the discharge chute 54. Similarly the troughs 10, 12 and 14 extend to the right from the line A—A, the belts 10', 12' and 14' being driven by the rollers 57, 58 and 59 of the driving mechanism C, and the troughs 11 and 13 extend to the left from the line B—B, the corresponding belts 11' and 13' being driven by the rollers 60 and 61 of the driving mechanism D.

In the same manner the odd numbered troughs 1, 3, 5 and 7 of the lower tier extend to the right from the line A—A and the even numbered troughs 2, 4 and 6 extend to the left from the line B—B. Belts 1', 3', 5' and 7' are driven by the rollers 62, 63, 64 and 65 respectively, of the driving mechanism C and the belts 2', 4' and 6' are driven by the rollers 66, 67 and 68 of the driving mechanism D.

In order to increase the hand room between the upper and lower tiers, the main and return runs of the belt are positioned relatively close together, the rails 44 and 45 of the end sections between the cross frames 26 and 26*a* sloping upwardly from the lower face of the driving rollers, as shown at 69 in Figure 8. As illustrated in Figure 9 the spacing of the main and return runs of the belts is considerably greater at the line A—A (corresponding to the line 9—9 in Figure 8) than at the adjacent cross frame 26*a* (at line 10—10, Figure 8), as shown in Figure 10. The intermediate portion 70 of the supporting rails and return runs of the belt, extending between the cross frames 26*a*, are horizontal.

The driving mechanism D for the right end of the V-trough conveyors will now be described. The driving rollers 55, 60 and 61 of the upper tier of belts are carried by shafts 70, 71 and 72 respectively, of decreasing lengths, the shafts being offset upwardly to correspond with the stepped arrangement of the V-trough. The shafts are journaled in bearings 73 and 74 carried by angle irons 75. Two pulleys 76 and 77 are mounted on the outer end of the shaft 71 and a single pulley 78 is mounted on the outer ends of the shafts 70 and 72.

The driving rollers 66, 67 and 68 of the lower tier are similarly carried on shafts 70', 71' and 72', shafts 70' and 72' having two rollers 76' and 77' on their outer ends and shafts 71' having a single pulley 78' mounted on its outer end. The shafts are driven by three electric motors 79, 80 and 81, motor 79 directly driving the shaft 72' through its pulley 76' and the belt 82. Shaft 72 is driven from the shaft 72' by belt 83 passing around the pulleys 77' and 78 of the shafts 72' and 72 respectively. Similarly, motor 80 directly drives the shaft 71 by means of the belt 84, shaft 71' being driven from the shaft 71 by the belt 85. Motor 81 similarly drives the shaft 70' which in turn drives the shaft 70.

The driving mechanism is supported on a rectangular frame comprising corner uprights 86, having horizontal cross supports 87, from which the angle irons 75, carrying the shaft bearings are supported. The angle iron 75 corresponding to the shafts 70 and 70' are mounted directly upon the cross supports 87 and the angle irons 75 corresponding to shafts 71, 71', 72 and 72' are supported above the cross members 87, on blocks or channel members 87'. The motors 79 and 80 rest upon a top platform 88 and the motor 81 is carried by a shelf 89.

The driving mechanism C for the left end of the conveyor system is of substantially the same construction with exception that four shafts 90, 91, 92, 93 and 90', 91', and 93' are provided for upper and lower tiers of conveyors respectively, shafts 90, 91', 92 and 93' being driven directly from the motors 94 to 97 and the shafts 90', 91, 92' and 93 being driven from the shafts 90, 91', 92 and 93' respectively.

As stated before, the alternate belts extend beyond the driving mechanism and discharge at the outward ends of the conveyor system, conveyors 2, 4 and 6 of the lower tier and 9, 11 and 13 of the upper tier discharging at the left end, and the remaining conveyors discharge at the right end of the mechanism. The individual V-trough conveyors may terminate at different distances beyond the driving mechanism or they may terminate at substantially the same distance therebeyond. As shown in the plan view in Figure 3, the trough 9 terminates immediately beyond the driving mechanism at the discharge chute 54, conveyors 11 and 13 extending beyond the conveyor 9 and as shown in Figure 4, the conveyors 8 and 10 terminate adjacent the driving mechanism D at the discharge chutes 51, conveyors 12 and 14 extending further along.

The V-trough conveyors may discharge into stationary trays or receptacles or into conveyors of the same or different types by which the sorted messages are carried to their proper destination. In Figure 13, I have shown a transverse view of the left end of the conveyor, illustrating the three V-trough conveyors 2, 4 and 6 terminating at the same point transversely of the conveyor, in the discharge chutes 95, 96 and 97, which discharge downwardly into three drag conveyor systems. The chute 95 discharges into the junction of two belts 98 and 99, the latter comprising an idler belt passing around rollers 100, 101 and 102 and beneath rollers 103 and 104. Belt 98 passes around a roller 105 and, in contact with the belt 99, to the roller 102 and thence upwardly in the stationary channel member 106 and around rollers 107, 108 and 109. The messages discharged from the chute 95 are picked up by the belts 98 and 99 and carried therebetween to the roller 102 and thence by the belt 98 upwardly through the drag conveyor trough 106 between the belt and the trough. At the pulley 107, the message passes into another drag conveyor section 110, having a discharge 111, which may be disposed at any desired distance from the distributing center.

The construction of the drag conveyor is fully set forth in a copending application of F. E. d'Humy, et al., Serial #422,126, filed January 20, 1930, and entitled "Drag conveyor." Briefly, it consists of a channel member, as 106, having outwardly flaring side walls (see Figure 14), the belt 98 traveling in the trough of the channel and dragging the messages T there-along by friction.

The second chute 96 discharges into the junction of an idler belt 112, passing around rollers 113 and 114, and a belt 115 extending in contact with the belt 112 and passing into the trough of a channel 116, of a second drag conveyor system. The chute 97 discharges directly into the junction of the belt 117 and a roller 118, the messages passing around the roller and into the channel of a drag conveyor 119 between the belt 117 and the base of the trough. The drag conveyor 119 discharges at point 120, which may be located at any suitable distance from the distributing center.

In place of the V-trough conveyors discharging downwardly into the drag conveyors, the messages may be picked up out of the V-trough, as shown and described in a copending application of M. V. Creedon, Serial No. 542,656, filed June 6, 1931, and entitled "Conveyor transfer mechanism", or the messages may discharge from the end of the V-trough as shown in a copending application of B. Beardsley, Serial No. 499,590 filed December 2, 1930, and entitled "Conveyor transfer mechanism".

The slow moving belt 25, which conveys the material to be sorted past the sorting positions, extends from a driving roller 121 to the line A—A and thence along the front of the lower tier of V-trough conveyors to the line B—B, passing around a roller 122 at this point and returning parallel to its operating run. The main or operating run of the belt travels in a trough comprising side angles 123 and 124 and central rails 125 supported by transverse members 126 extending between the uprights 31 and 27 of each cross frame 26. The return run of the belt travels on one flange of the channel members 127 and 128, depending from the supporting members 126. Rails 129 are also provided to support the central portion of the return belt. The belt is driven by a motor 130 through speed reducing pulleys 131 and a pulley 132 on the shaft of the driving roller 121 by belts 133 and 134. The messages to be sorted are deposited upon the belt 25 to the left of the line A—A, either by hand or from a supply conveyor extending from various parts of the operating room and are carried past the sorting positions at which they are sorted and placed in the proper V-trough conveyor for conveyance to the desired station or position at which the messages are to be further handled.

Obviously numerous changes and modifications may be made in the construction and arrangement of the conveyor system or distributing center and, therefore, I do not desire to be limited to the particular mechanical details shown and described, except in accordance with the requirements of the appended claims.

What I claim is:

1. A conveyor system comprising a plurality of parallel longitudinally extending troughs disposed one behind the other, individual belts in the base of each trough, separate driving mechanism for each belt, said belts being arranged to be driven at one end and to discharge the material from the opposite end, individual pick-up conveyors for each of said troughs and means joined to the discharge end of said troughs for transferring the material to the respective pick-up conveyors, said conveyors being arranged so that the drive means and transfer means for each alternate conveyor are disposed respectively at the same end of the conveyor system and for the remaining alternate conveyors are disposed at the opposite end of the conveyor system.

2. A conveyor system comprising a plurality of parallel longitudinally extending troughs disposed one behind the other, a belt in the base of each of said troughs, driving means for each alternate belt disposed at one end of the system, driving means for the remaining belts disposed at the opposite end of the system, discharge means for each belt disposed at the end opposite from its driving means, and individual pick-up conveyors disposed to extend within the space remaining between the driving means of the belts in the troughs adjacent thereto to communicate with the respective discharge means for receiving material from the respective conveyor troughs.

3. A multiple conveyor system comprising a plurality of longitudinally extending conveyors disposed one beyond the other in juxta-position, individual discharge chutes disposed at one end of each conveyor, said discharge chutes for consecutive pairs of conveyors being disposed at opposite ends of the system, whereby space equivalent to the transverse spacing of two of said conveyors is available for the discharge chute of each conveyor.

4. A conveyor system comprising a plurality of parallel longitudinally extending belt supporting rails disposed one behind the other in upwardly stepped relation, individual endless belts having main runs arranged to travel on said rails, partition members intermediate said belts forming spaced troughs, stepped rails having vertical risers disposed beneath said main runs for supporting the return runs of said belts and apertures in said risers for rendering the space between said main and return runs visible.

5. A conveyor system comprising a plurality of parallel longitudinally extending belt supporting rails disposed one behind the other in upwardly stepped relation, individual endless belts having main runs arranged to travel on said rails, partition members intermediate said belts forming spaced troughs, stepped rails beneath said main runs for supporting the return runs of the belt and clearing-out member on said belts, said latter rails being spaced to engage the margins only of said belt and to permit said clearing-out members to pass therebetween.

6. In a distribution center, a conveyor system comprising a plurality of distributing conveyors each embodying longitudinally extending trough sections, said trough sections being grouped and disposed one behind the other in contiguous relation within reach of assorting clerks positioned laterally therealong, so that the clerks may selectively deposit the material in the proper conveyor for carrying each of the assorted articles to their destination, individual belts in adjacent troughs being arranged to carry the material deposited therein in opposite directions, whereby the assorting clerks may distinguish between adjacent conveyors.

7. A multiple conveyor system comprising a plurality of longitudinally extending conveyors disposed one behind the other in juxta-position, individual discharge chutes disposed at one end of each conveyor, said discharge chutes for consecutive conveyors being disposed at alternate ends of the system and set on center lines spaced apart a distance substantially equal to the transverse spacing of two of said conveyors, alternate conveyors being arranged to discharge into chutes

at one end of the system and the remaining conveyors being arranged to discharge into chutes at the other end of the system.

8. A conveyor system comprising a plurality of parallel longitudinally extending troughs disposed one behind the other in contiguous relation, belts disposed in the base of said troughs and arranged to discharge material from the troughs at one end thereof, individual pick-up conveyors arranged to receive the material discharged by the conveyor belts, transfer mechaanism arranged to direct the material from the conveyor belts to the pick-up conveyors, said pick-up conveyors and transfer mechanism for consecutive conveyors being disposed at opposite ends of the system and for alternate conveyors at the same end of the system, and arranged about center lines spaced transversely of the system a distance substantially equal to the width of two of said parallel troughs, the belts of consecutive conveyors being arranged to travel oppositely in a suitable direction to discharge material into the transfer mechanism.

9. In a distribution system, a conveyor for feeding the material through a distribution center and a plurality of distributing conveyors arranged adjacent thereto, said distributing conveyors comprising a plurality of parallel longitudinally extending troughs disposed one behind the other within easy reach of an operator seated adjacent the feeding conveyor so that the respective articles received may be assorted and deposited into the proper distributing conveyor, said distributing conveyors having open-top troughs raised slightly one above the other as an aid to the operator in distinguishing between far and near conveyors and having individual belts in the bottom of each trough, the belts in adjacent conveyors being arranged to carry material from the point of deposit in opposite directions as an aid to the operator in distinguishing between adjacent conveyors.

10. A conveyor system comprising a group of parallel vertical trough conveyors disposed in side by side relation and adapted to convey sheet material in a substantially vertical position and horizontal direction, individual conveyor elements adapted to travel in the base of each trough, each alternate conveyor being arranged to discharge at one end of said group, the intermediate conveyors being arranged to discharge at the opposite end of said group, the discharging end of the alternate conveyors being located in substantially the same transverse plane and being open whereby said sheet material will be discharged from the end thereof and individual receiving conveyors corresponding to each alternate trough, each of said receiving conveyors being disposed with its inlet adjacent to the open end of the corresponding trough for receiving said sheet material as it is discharged therefrom, all of the receiving conveyors at the respective ends being disposed adjacent each other in a plane parallel to the plane including the discharge ends of said troughs.

11. A conveyor system comprising a group of parallel vertical trough conveyors disposed in side by side relation and adapted to convey sheet material in a substantially vertical position and horizontal direction, individual conveyor elements adapted to travel in the base of each trough, each alternate conveyor being arranged to discharge at one end of said group, the intermediate conveyors being arranged to discharge at the opposite end of said group, the discharging end of the alternate conveyors being located in substantially the same transverse plane and being open whereby said sheet material will be discharged from the end thereof, individual receiving conveyors corresponding to each alternate trough and arranged to extend along separate paths, each of said conveyors being disposed with its inlet adjacent to the open end of the corresponding trough for receiving said sheet material as it is discharged therefrom, an inlet section for each of all of the receiving conveyors at the respective ends being disposed in a plane parallel to the plane including the discharge ends of said troughs, and means to drive the individual conveyor elements arranged at the end of the respective conveyors opposite from the discharge end.

12. In a belt conveyor system for sheet material, two or more parallel longitudinally extending conveyors provided with a head at one end and a discharge at the other, said conveyors being arranged so that with respect to adjacent conveyors the head of one and the discharge of the other are at the same end, an individual receiving conveyor for each discharge disposed with an inlet in position to receive material from said discharge, guide means between the discharge and the inlet of the receiving conveyor, said guide means being disposed to occupy a greater space transversely of the parallel conveyors than that occupied by the discharging conveyor and arranged to extend into the transverse space corresponding to the head of the adjacent conveyor.

13. In a belt conveyor system for sheet material, two or more parallel longitudinally extending conveyors provided with a head at one end and a discharge at the other, said conveyors being arranged so that with respect to adjacent conveyors they discharge at opposite ends of the system, the head end of one conveyor being terminated short of the discharge end of the other, an individual receiving conveyor for each discharge disposed with an inlet in position to receive material from the respective discharges, guide means disposed beyond the head of the adjacent conveyor between the discharge and the inlet of the receiving conveyor, said guide means being arranged to occupy a greater space transversely of the parallel conveyors than that occupied by the discharging conveyor and arranged to extend into the transverse space corresponding to the head of the adjacent conveyor.

14. In a belt conveyor system for sheet material, two or more parallel longitudinally extending conveyors provided with a head at one end and a discharge at the other, said conveyors being arranged so that with respect to adjacent conveyors the head of one and the discharge of the other are at the same end, an individual receiving conveyor for each discharge disposed with an inlet in position to receive material from said discharge, guide means between the discharge and the inlet of the receiving conveyor, said guide means being embodied in the receiving conveyor and disposed to occupy a greater space transversely of the parallel conveyors than that occupied by the discharge end of the discharging conveyor, said guide means being disposed to extend beyond the transverse space corresponding to the discharge and into the transverse space corresponding to the head of the adjacent conveyor.

15. In a belt conveyor system for sheet material, two or more parallel longitudinally ex-

tending conveyors provided with a head at one end and a discharge at the other, said conveyors being arranged so that with respect to adjacent conveyors the head of one and the discharge of the other are at the same end, an individual receiving conveyor for each discharge disposed with an inlet in position to receive material from said discharge, guide means extending from the discharge, cooperating guide means at the inlet of the receiving conveyor, both of said guide means having a transverse width greater than the space occupied by the discharging conveyor and arranged to extend into the transverse space corresponding to the head of the adjacent conveyor.

16. In a belt conveyor system for sheet material, two or more parallel longitudinally extending conveyors provided with a head at one end and a discharge at the other, said conveyors being arranged so that with respect to adjacent conveyors the head of one and the discharge of the other are at the same end, an individual receiving conveyor for each discharge disposed with an inlet in position to receive material from said discharge, guide means between the discharge and the inlet of the receiving conveyor, said guide means embodying a belt disposed to extend from one side of the discharge across the discharge opening, a roller disposed at the other side of the discharge opening and disposed to cooperate with said belt to guide the same and form the inlet of the receiving conveyor, the inlet provided at the point of contact of said belt and said roller being disposed substantially at one side of the discharge opening and arranged to utilize a portion of the space transversely of the parallel conveyors corresponding to the head of the adjacent conveyor.

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