

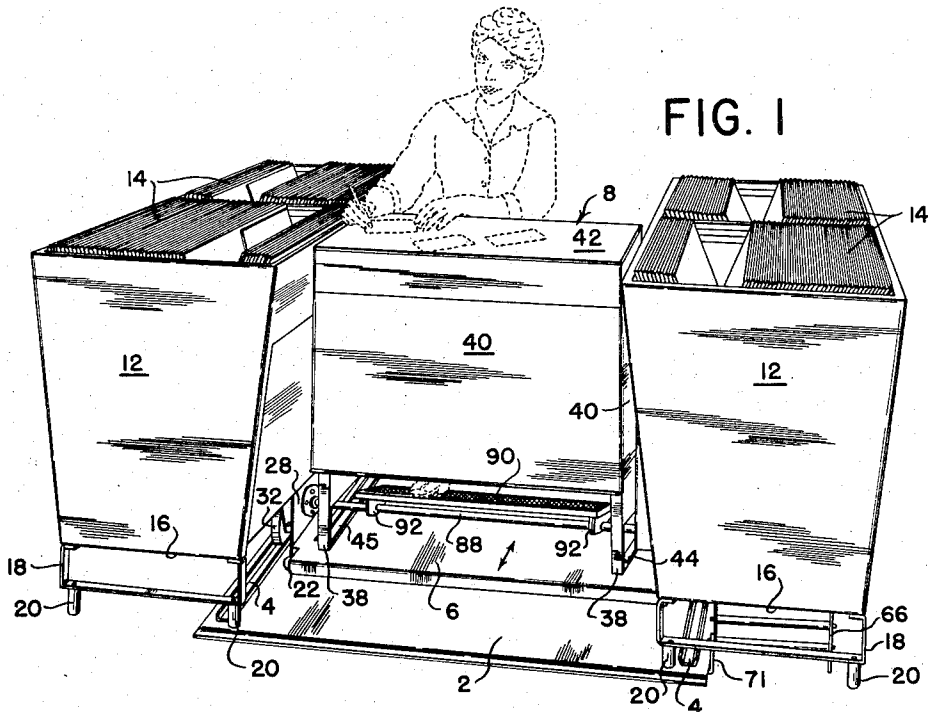
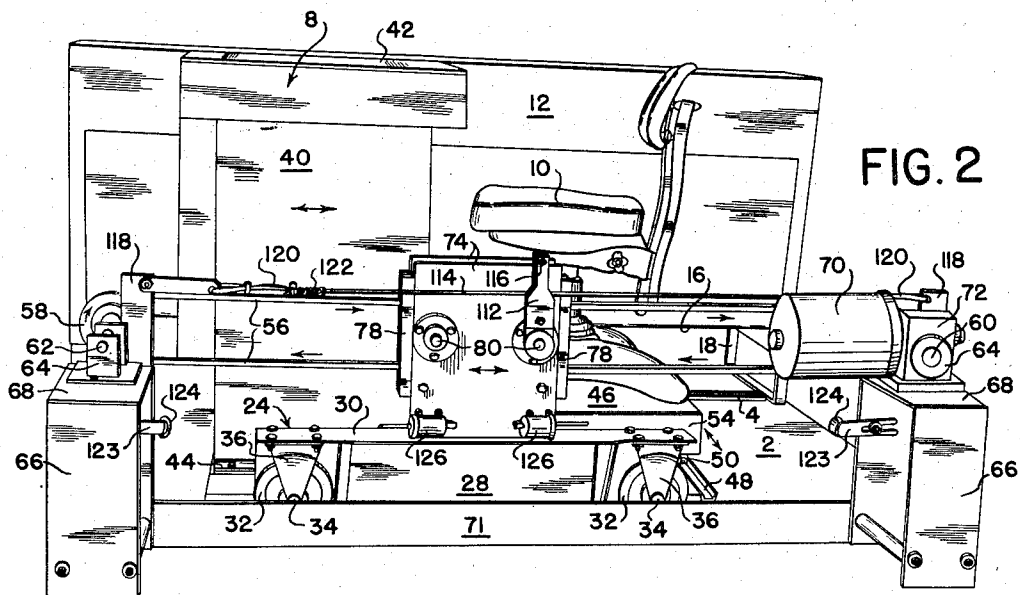
March 31, 1959

H. WESTON
POSTING DEVICE

2,880,048

Filed Jan. 30, 1957

4 Sheets-Sheet 1



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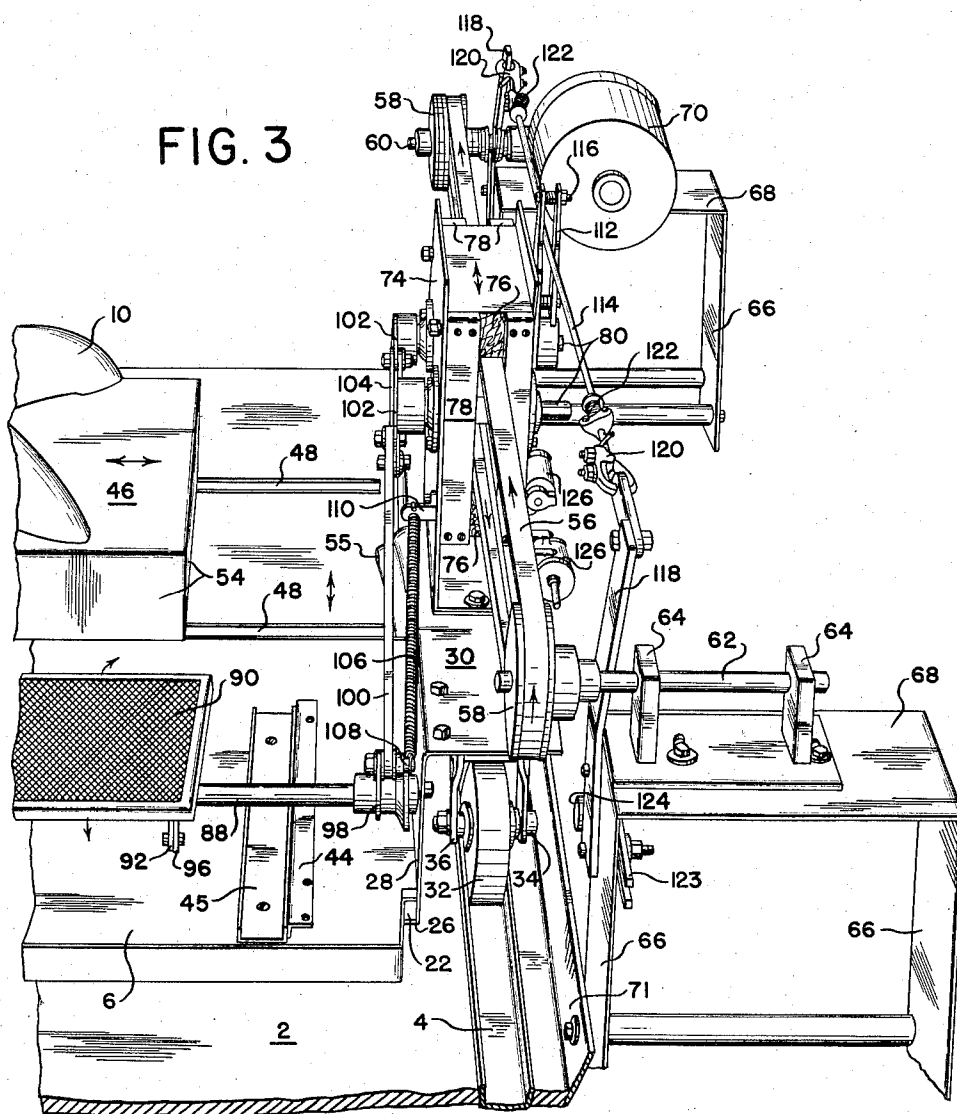
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4 Sheets-Sheet 2



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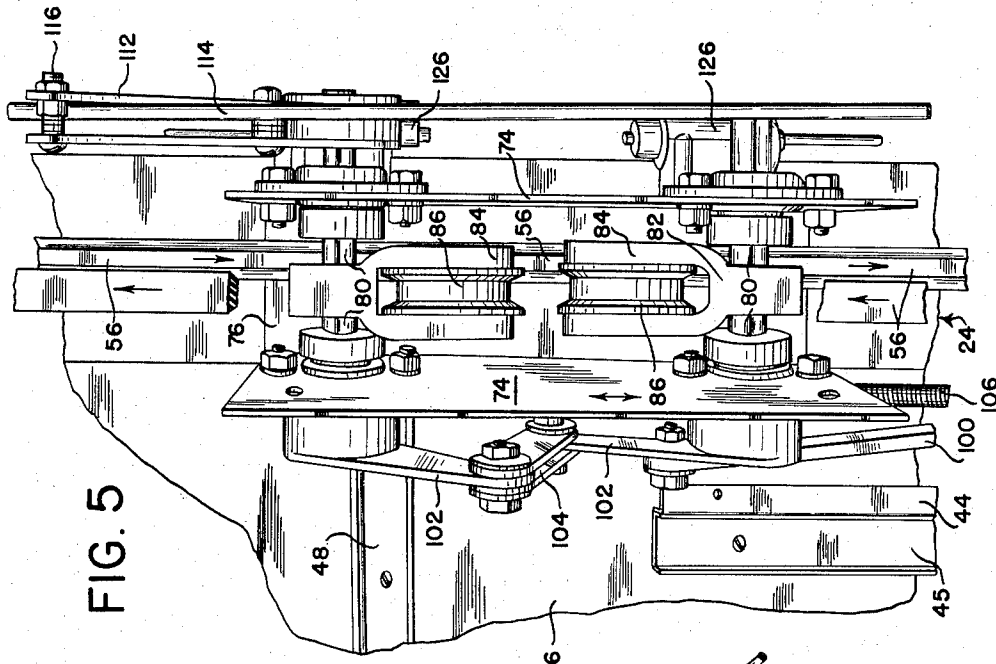
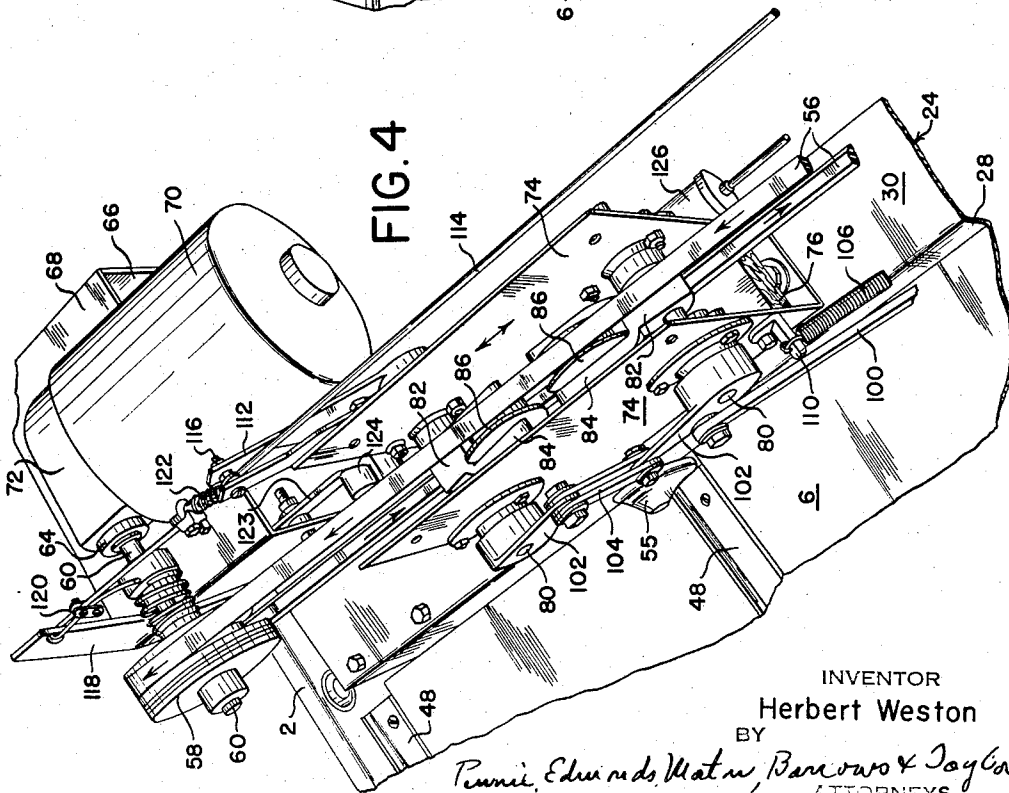
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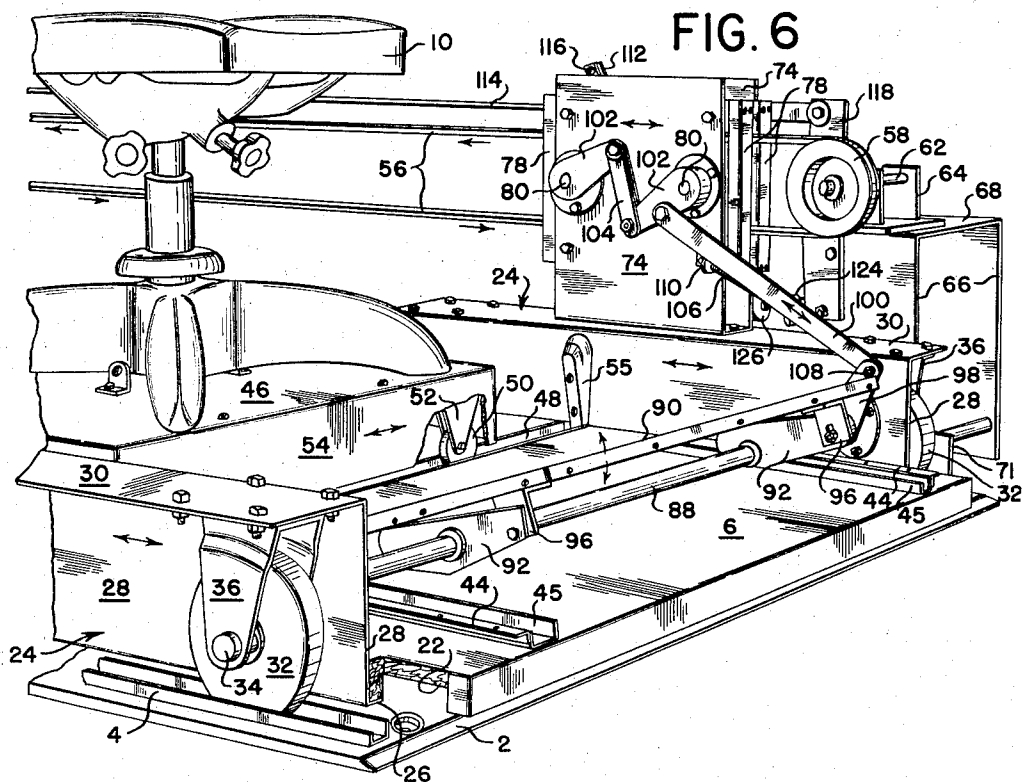
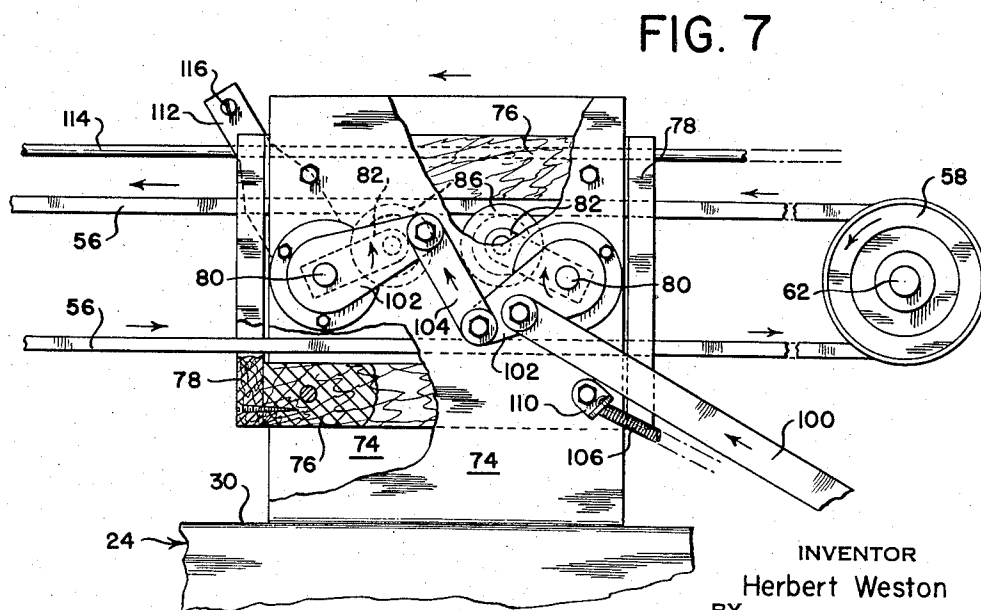
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4 Sheets-Sheet 4



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2,880,048

POSTING DEVICE

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4 Claims. (Cl. 312-198)

This invention relates to filing systems and more particularly to an arrangement of a plurality of filing units or trays with a mobile desk and chair disposed adjacent the units and in which means under control of the file clerk are provided to move the desk and chair from one position to another.

In the use of some types of filing systems it is necessary that cards be frequently removed for changes in, or additions to, the data recorded on them. When there are many such records, a clerk must move from one filing unit to another, frequently must take the removed card to a desk to make an entry and then return it to its proper place. Repetition of this performance throughout a working day is tiresome and unattractive to the clerk, and it frequently leads to temporary loss of records due to improper filing. It is also time-consuming and, therefore, expensive to the employer.

I propose to overcome the disadvantages of this practice by providing a filing system in which the clerk sits at a table and is able to propel the chair on which she sits and the table to various positions from which any desired filing unit is accessible. The clerk may then remove one or more cards, make necessary entries and return the cards to their proper places. The chair and table unit may then be moved by the clerk to another position from which other cards can be readily removed from another unit.

In carrying out the invention, a plurality of filing units are arranged in line and the chair and table are mounted on a unit which is movable on tracks in front of, and parallel to, the filing units. I provide an endless belt adjacent the filing units, together with gripping means mounted on the movable unit, and adapted to grasp either flight of the belt to cause the movable unit to travel in either direction. The gripping means are controlled by the operator through suitable mechanism. Thus, the operator may move from one position to another, in either direction, and may manipulate the control to remain at rest in any desired position.

For most economical utilization of space, the filing units may be arranged in two parallel rows with a space or aisle between them in which the moving unit is arranged. This permits a given number of filing units to be arranged in one-half the space longitudinally that would be required if the filing units were in a single row. It thus is a more compact construction and reduces the amount of travel of the moving unit on which the clerk performs her duties. Such an arrangement is illustrated herein, but the invention is not limited to this form.

An important feature of the invention is the provision of simple control mechanism by means of which the movable unit can be caused to travel in either direction when desired. By means of a treadle arranged beneath the table, where the filing clerk's feet normally rest when she is seated on the moving unit, or by other simple and similar control means, when the clerk has completed entries on cards that are filed in a unit of the files or trays and desires to move to a position adjacent to another

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filing unit to obtain cards on which other entries are to be made, she merely depresses the treadle and causes the gripping means to engage either the upper or lower flight of the belt to travel in a desired direction to the filing unit in which she will find the cards on which she then is to make entries.

In the accompanying drawings I have illustrated one form of the invention. In this showing:

Fig. 1 is a perspective view looking at the unit from the front;

Fig. 2 is a similar view from the right side of Fig. 1 with a group of filing trays removed to show the operating and control mechanism;

Fig. 3 is a perspective view looking downwardly from the front of the unit, with the table removed to show the treadle and connected control mechanism;

Fig. 4 is a perspective view looking downwardly from the opposite side of the control mechanism from Fig. 2 with the top of the gripping means casing removed to show the mechanism in greater detail;

Fig. 5 is a perspective view of the parts shown in Fig. 4 looking downwardly;

Fig. 6 is a perspective view from the front of the unit with the filing trays on the left side and the table removed showing further details of the connections between the treadle and gripping mechanism; and

Fig. 7 is a side view, with parts broken away, of the gripping mechanism.

As shown in Fig. 1, the device may include a stationary base 2 on which a pair of parallel tracks 4 are mounted. These tracks 4 are spaced apart the proper distance to receive a movable platform 6 on which a table 8 and a chair 10 are mounted. Groups of filing trays 12 are arranged on each side of the tracks, and cards 14 are arranged in these trays. As stated, when the filing trays are arranged in two rows with an aisle between them, they are spaced a sufficient distance to permit movement of the platform desk and chair between them. It is apparent that a single row of filing trays could be arranged on either side of the tracks, if desired. Also, while it is convenient to provide the base 2 on which the tracks are mounted and install the complete device as a unit, it could be eliminated and the tracks mounted directly on the floor of the office or other place in which the device is to be used.

While the type of filing trays with which the mechanism may be used may vary, I propose to employ trays, the bottoms 16 of which are supported above the floor. Frame members 18, mounted on legs 20, may be arranged beneath the trays. This permits the tracks 4 to be arranged beneath the trays as shown (see Fig. 1). The side edges of the movable platform also extend beneath the tray, except at the extreme forward end where a notch 22 is provided at each corner to reduce the width of the platform and prevent it from hitting the inside legs 20 of the trays (see Fig. 1). A side member 24 is secured to each side of the movable platform. As shown, it may be formed of sheet metal, and consist of a flange 26 secured to the lower surface of the platform, a vertical portion 28 extending above the platform, and an outwardly extending upper flange 30. The upper flange supports the wheels by means of which the platform is moved. Front and rear wheels 32 are mounted on stub shafts 34 which are carried by brackets 36 secured to the flanges 30. These wheels travel on tracks 4 to move the platform as hereinafter described.

Table 8 may be of any suitable construction. As shown (see Figs. 1 and 2) it may consist of lower supporting frames 38, secured to the platform 6 in any suitable manner vertical front and side walls 40 and an upper structure which provides a working surface 42,

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The horizontal portions of frames 38 may be arranged beneath the horizontal flanges of beams 44 to secure the desk to the platform. These beams may, in turn, be secured to channels 45 which are bolted or otherwise secured to the platform.

Chair 10 is mounted on a support 46 which is movable transversely of platform 6 to permit the clerk to occupy a position near either group of trays as desired. As shown (see Figs. 3 and 6) the platform has a pair of tracks 48 on its upper surface. Support 46 has a pair of rollers at the front and a pair of rollers at the rear which ride on these tracks. The rollers 50 (see Fig. 6) are mounted in brackets 52 arranged on the under side of the horizontal portion of the support. Flanges 54 on all sides of the support normally conceal the rollers from view. Bumpers 55 are mounted on flanges 28 at the ends of the tracks 48 to cushion the contact of the support and the flanges when the support is moved transversely. The clerk may move the support transversely of the platform by placing her feet on the platform and pushing in the desired direction.

The mechanism for propelling the platform is arranged at one side beneath the filing trays on that side and is substantially concealed from view. As shown, it includes an endless belt 56. The belt passes over pulley 58 at each end of the unit. These pulleys are arranged on shafts 60 and 62 which are mounted on bearing members 64 supported at a suitable height above the platform and base. The bearings may be supported on pillars to arrange the shafts 60 and 62 at the desired height. These pillars may consist of spaced vertical plates 66, and a horizontal plate 68 on which the bearing member is supported. The inner vertical plate of each pillar is secured to a flange 71 formed on base 2 (see Fig. 3). The rear shaft 60 is driven in any suitable manner, as by motor 70 through reduction gearing 72.

On the side of the platform where belt 56 is located, mechanism is carried by platform 6 which grips either flight of the belt to cause the platform to move with the belt. Thus, as illustrated in the drawings (see Figs. 2 and 3) the upper flight travels rearwardly and the lower flight travels forwardly. The platform may thus be moved rearwardly by gripping the upper flight and forwardly by gripping the lower flight. The mechanism for gripping the belt is mounted in a casing supported on the upper flange 30 of the side member. This casing may consist of side members 74 extending upwardly from and secured to flange 30 (see Fig. 7), upper and lower members 76 and end members 78. The end members serve as guides for the belt and consist of two strips providing a space between them slightly wider than the width of the belt (see Fig. 3). The upper and lower members serve as one of the members between which the belt is gripped and are preferably formed of wood. Within the casing I provide a pair of shafts 80, one adjacent each end, and arranged substantially midway between upper and lower members 76. On each of these shafts an arm or support 82 is mounted. The ends of the arms 82 are forked, as at 84, and each of them carries a stub shaft on which a grooved roller 86 is mounted. Thus when shafts 80 are turned to cause the rollers to force the upper flight of the belt against upper member 76, as illustrated in Fig. 7, the platform will be caused to move to the left in this figure, that is, in the direction of travel of the upper flight. Similarly, when the shafts are turned in the opposite direction to cause the rollers 86 to grip the belt between them and lower member 76, the platform will be caused to move to the right in Fig. 7.

Rollers 86 are controlled from the clerk's position on chair 10. As shown, a shaft 88 is arranged beneath table 8, mounted in suitable bearings in plates 28. A treadle 90 is mounted on the shaft arranged at a convenient point to receive the clerk's feet, when she sits

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on chair 10. Treadle 90 is connected to the shaft in any suitable manner to cause the shaft to oscillate when the front or rear of the treadle is depressed. Thus arms 92 may be provided with sleeve portions secured to the shaft to rotate therewith and the arms may in turn be connected to brackets 96 secured to the underside of the treadle. A crank 98 is secured to shaft 88 at the side of the device on which the gripping mechanism is arranged. Crank 98 is connected to a link 100 which extends to a point near the gripping mechanism casing (see Fig. 6). The other end of the link is connected to a crank 102 arranged on one of the shafts 80. A similar crank 102 is mounted on the other shaft 80. The cranks 102 are connected to each other by a link 104. A coil spring 106 extends substantially parallel to link 100, being connected at one end to pin 108 which connects link 100 to crank 98 at its other end to bracket 110 on the side of the gripper mechanism casing (see Figs. 3 and 7).

Suitable means are provided to limit the movement of the platform in either direction and to cushion its stoppage at the limit of its movements. A crank 112 is mounted on one of the shafts 80 on the opposite side of the casing from the control mechanism. This crank is formed of two spaced members, and a cable 114 is received between them, the cable being retained in place by a bolt 116 arranged across the outer ends of the two members of crank 112. The cable is supported at its opposite ends by plates 118 extending upwards from the side walls 66 of the pillars which support the pulley shafts of the drive mechanism. The ends of the cable are connected to plate 118 by connectors 120. At each end, the cable is surrounded by a coil spring 122 which engages crank 112 as the mechanism moves in either direction. The crank 112, when moved from an inclined position to a vertical position, rotates shafts 80 to bring rollers 86 to an intermediate position and release the belt.

Stops 123 are mounted on the inner plates 66 at each end of the machine. These stops may consist of metal arms or brackets having suitable padding or cushioning means 124 surrounding their outer end portions. Dash-pots 126 are arranged on the outer side plates 74 of the gripping mechanism casing. The pistons of these dash-pots have projecting piston rods which engage the padded ends of the stops 123 and bring the platform to a stop without jolting.

The operation of the device will be apparent. The parts are assembled with tracks 4 on base 2 or on the floor and the filing trays 12 arranged on each side, as shown, with an aisle of suitable width between them, or with the trays arranged on one side of the track. The clerk sits on chair 10 in front of desk or table 8 with her feet on treadle 90, as shown in Fig. 1 of the drawings. The control mechanism may be adjusted so that the treadle will incline upwardly from front to back when the parts are in position to retain rollers 86 in an intermediate position with neither flight of the belt 56 gripped between one of the rollers and upper or lower wooden plate or block 76. This is the position of rest, and is assumed while the clerk is working on cards or other papers removed from a tray. When the clerk wishes to move the platform 6 along the track, she depresses either the front or back of the treadle with her feet. Thus, if the forward end of the treadle is depressed to turn crank 98 clockwise in Fig. 6 of the drawings, link 100 is moved forwardly. This rotates front shaft 80 (Fig. 6) counter-clockwise and rear shaft 80 clockwise, causing rollers 86 to clamp the belt between them and the lower block 76. As the lower flight of the belt is illustrated as moving forwardly, this would cause the platform, table and chair to move forwardly. Tilting the treadle 90 in the opposite direction will cause rearward movement of the platform.

The clerk may arrest the movement of the platform at any intermediate point by bringing the treadle to an

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intermediate position and placing rollers 86 in the position in which neither flight of the belt is clamped between the rollers and one of the blocks 76. Spring 106 retains the treadle in the intermediate, neutral position when pressure is removed from the treadle. If, however, the platform 6 is permitted to travel to the end of its path, spring 122 will move crank 112 toward a vertical position. This turns one of the shafts 80 whose movement is transmitted through the cranks and link to the other shaft 80 and moves the rollers 86 to the intermediate, neutral position. When the platform travels to its limit of movement, stop 122 and dash-pot 126 bring it to a stop without jolting. A slip clutch may be arranged in shaft 60 between pulley 58 and reduction gearing 72. The clerk may move the chair 10 transversely of the platform when desired, by placing her foot on the platform and pushing toward either side, causing the chair support 46 to move to the side on tracks 48.

I claim:

1. Filing equipment comprising a plurality of filing receptacles arranged in a line, tracks in front of the receptacles and parallel thereto, a platform movable on the tracks, an operator's station on the platform, an endless belt arranged beside the tracks, the belt having one flight traveling in one direction and the other flight traveling in the opposite direction substantially the full length of the filing receptacles, a casing mounted on the platform through which the two flights of the belt pass, stationary gripping means in the casing adjacent each flight of the belt, a shaft in the casing, a roller mounted

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on the shaft and movable to positions to grip either flight of the belt between the roller and one of said stationary gripping means, and means on the platform adjacent the operator's station to control the position of said roller.

2. Apparatus in accordance with claim 1 in which the means for controlling the position of the roller consists of a shaft on the platform adjacent the operator's station, a treadle on the shaft to permit oscillation of the shaft, and a link connecting said shaft and the shaft in the casing on which the roller is mounted.

3. Apparatus in accordance with claim 1 in which means are provided to disconnect the platform from the belt adjacent each end of its path of movement on the tracks.

4. Apparatus in accordance with claim 1 wherein the shaft on which the gripping roller is mounted carries a crank, a cable extending parallel to the belt passes through said crank, and means are mounted on the cable adjacent each end to engage the crank and rotate it to release the roller and belt.

References Cited in the file of this patent

UNITED STATES PATENTS

1,418,714	Humphries	June 6, 1922
1,731,691	Webb	Oct. 15, 1929
2,412,219	Hunter	Dec. 10, 1946
2,552,434	Klapman	May 8, 1951