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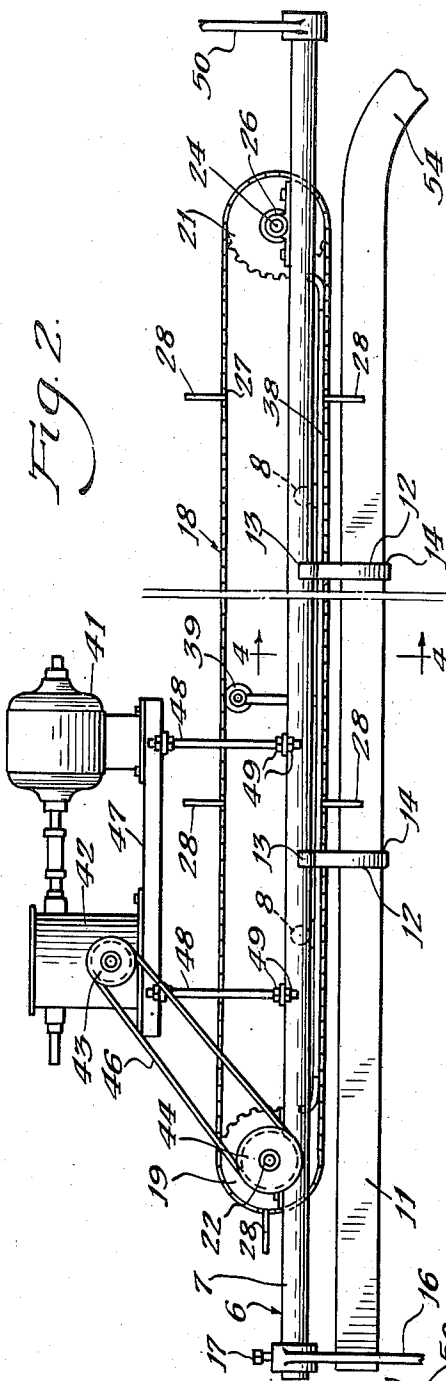
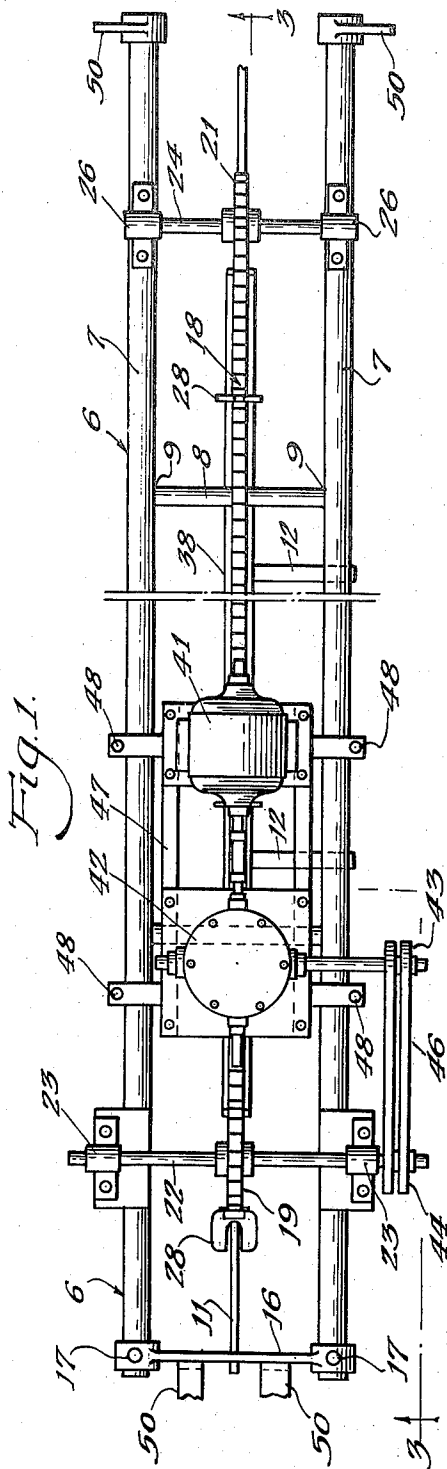
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2,449,669

GARMENT CONVEYER

Filed June 22, 1946

2 Sheets-Sheet 1



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Fig. 3.

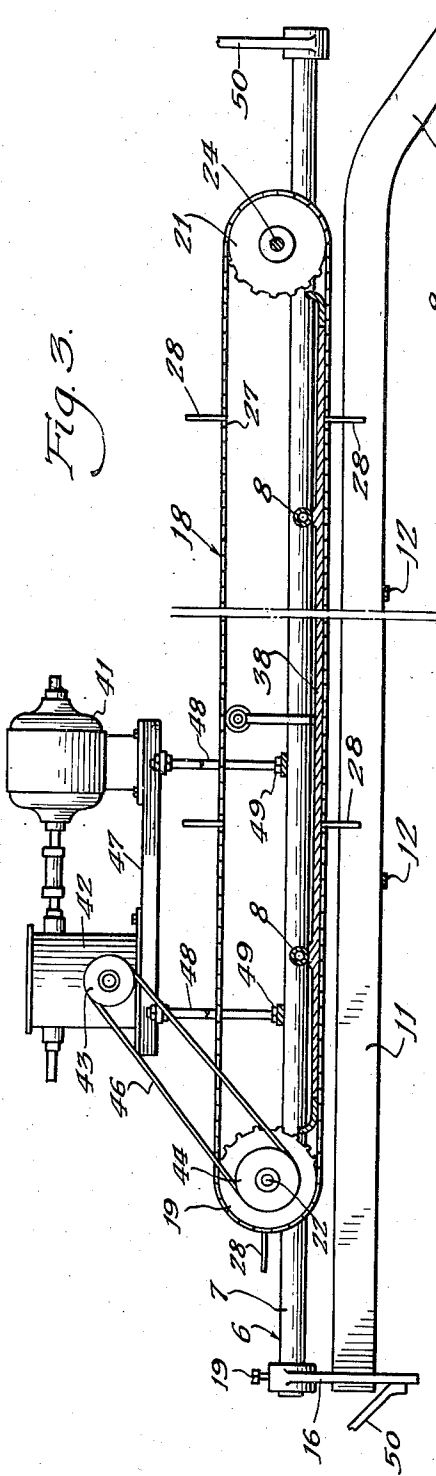


Fig. 5.

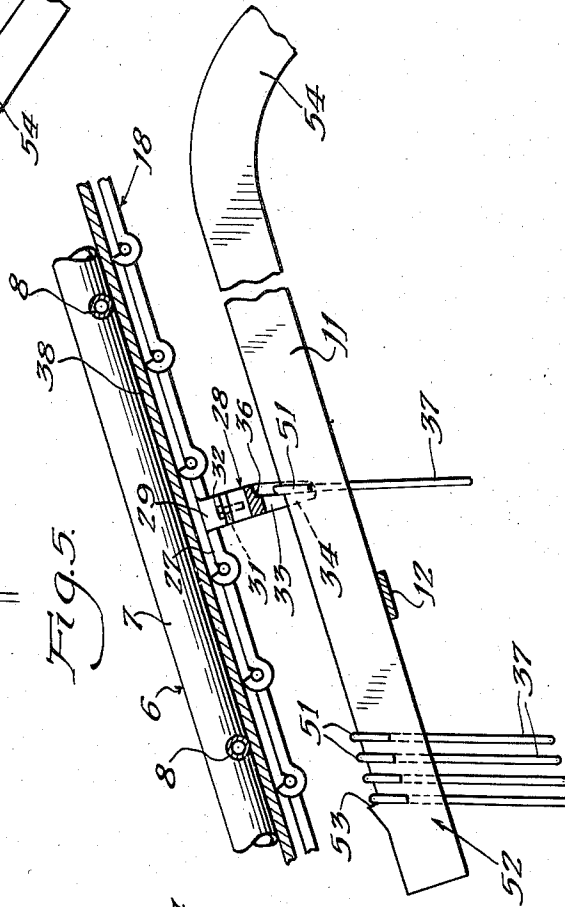
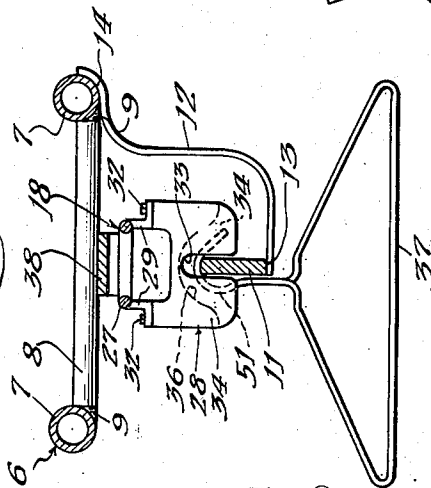


Fig. 4.



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UNITED STATES PATENT OFFICE

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GARMENT CONVEYER

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3 Claims. (Cl. 198—168.)

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This invention relates to improvements in conveyors, and is more particularly concerned with the provision of a conveyor suitable for the movement of garments within a dry cleaning establishment. In many dry cleaning establishments, a lower floor is employed to receive and clean garments, while the upper floor or floors are used as storage space for the garments after same have been cleaned. As many dry cleaning establishments are not provided with elevator service, it has heretofore been necessary for the employees to carry garments from the lower floor to the upper floors. The present invention contemplates the provision of a relatively simple and inexpensive type of conveyor which may readily be installed for use in a dry cleaning establishment for conveying garments from a lower floor to upper floors.

This invention further contemplates the provision of a garment conveyor adapted to be constructed and assembled at the factory as a complete unit ready for installation within a dry cleaning establishment.

This invention further contemplates the provision of a garment conveyor embodying a supporting bar adapted to receive the hook portion of standard wire garment hangers, and an endless chain provided with pusher members to straddle said bar and move the garment hangers from one end of the bar to the other end, the pusher elements being arranged at spaced intervals along the endless chain and having their front faces provided with shoulder means to prevent displacement of the wire hangers from the supporting bar.

This invention embodies other novel features, details of construction and arrangement of parts which are hereinafter set forth in the specification and claims, and illustrated in the accompanying drawings wherein:

Fig. 1 is a plan view illustrating a garment conveyor embodying features of this invention.

Fig. 2 is a side elevational view of same.

Fig. 3 is a longitudinal sectional view, taken along the line 3—3 of Fig. 1.

Fig. 4 is a transverse sectional view taken along the line 4—4 of Fig. 2.

Fig. 5 is an enlarged fragmentary longitudinal sectional view showing the garment conveyor disposed in an inclined plane for moving garment hangers from a lower floor to an upper floor.

Referring now to the drawings for a better understanding of this invention, the garment conveyor is shown as comprising a frame 6 having longitudinally extending side members 7 secured

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in spaced parallel relation by means of transverse members 8. In order to form a relatively strong, lightweight frame for the conveyor, the side members 7 and transverse members 8 are preferably formed of pipe or tubing and welded together at 9. Suitable mounting brackets 50 are provided on the frame 6 for engagement with the floor or walls of a building.

A hanger supporting bar 11 is secured in spaced parallel alignment below the frame 6 by means of supporting brackets 12. It will be noted that the supporting brackets 12 are all located along one side of the frame with their upper ends welded to the frame member 7 at 13 and with their lower ends welded to the lower edge of the supporting bar 11 at 14. The bar 11 is also rigidly supported adjacent its lower end in a bracket 15 secured to the side members 7 by means of set screws 17.

An endless chain 19 is mounted on the frame 6 between the side members 7 upon a driving sprocket 19 and a driven sprocket 21. The driving sprocket 19 is secured to a shaft 22 which is journaled in bearings 23—23 provided on the side members 7. The driven sprocket 21 is secured to a shaft 24 which is journaled in bearings 26—26 secured to the side members 7. At spaced intervals along the conveyor chain, bracket links 27 are provided to receive pusher plates 28. The links 27 are provided with ears 29 which extend downwardly and outwardly from opposite sides of the links and provided with apertures 31 to receive cap screws 32 for threaded engagement into the pusher elements 28.

The pusher elements 28 are slotted at 33 to provide a pair of arms 34 extending downwardly along opposite sides of the supporting bar 11. The front face of each pusher element 28 is also provided with a forwardly projecting U-shaped shoulder 36 to prevent upward displacement of wire garment hangers 37 from supporting bar 11.

A longitudinally extending guide plate 38 is welded or otherwise secured to the transverse members 8 of the frame 6 to prevent upward displacement of the pusher elements 28 with respect to the supporting bar 11 during movement of hangers 37. On relatively long conveyors, it may be desirable to provide one or more idler rolls 39 to support the slack side of the endless chain.

The driving shaft 22 is driven by means of an electric motor 41 through a speed reduction unit 42; pulleys 43 and 44, and a driving belt 45. The motor 41 and speed reduction unit 42 are secured to a base plate 47 which is adjustably supported

upon the frame 6 by means of threaded upright members 48 and adjustment nuts 49.

The garment conveyor is adapted to be installed within a dry cleaning establishment with the frame 6 disposed in an inclined plane for conveying garments from a lower floor to an upper floor. Bracket means 50 may be provided for securing the ends of the frame 6 to portions of a building. In the operation of the conveyor, the garments to be conveyed from a lower floor to an upper floor are first mounted upon wire hangers 37 after which the operator positions the hook portion 51 of the hangers upon the supporting bar 11 adjacent the loading position indicated generally at 52. It will be noted that the supporting bar 11 is provided with a shoulder 53 on its upper edge to prevent downward movement of the hangers along the supporting bar. During movement of the endless chain, the pusher elements 23 are moved into operative position with the supporting bar 11 to engage the hook portions 51 of the hangers and to move same upwardly along the supporting bar. At the upper end of the conveyor, the supporting bar 11 curves downwardly at 54 to permit the hangers and the garments supported thereon to move by gravity.

While this invention has been shown in but one form, it is obvious to those skilled in the art that it is not so limited but is susceptible of various changes and modifications without departing from the spirit and scope of the claimed invention.

I claim as my invention:

1. In a portable garment conveyor adapted to be angularly positioned as a complete unit within a building for transferring garments mounted upon wire garment hangers from one floor level to an upper floor level, a pair of side frame members arranged in spaced parallel relation, transverse frame members secured to said side frame members, a driving shaft journaled on one end of said side frame members, a driven shaft journaled on the other end of said side frame members, sprockets mounted on said driving and driven shafts and disposed between said side frame members, an endless chain mounted on said sprockets, pusher members mounted at spaced intervals along said chain, a supporting bar secured to one of said side frame members and disposed directly below said chain to receive the hook portion of wire garment hangers, said pusher members being bifurcated at their outer ends to straddle said supporting bar, a guide plate secured to said transverse frame members in spaced parallel alignment above said supporting bar to engage the lower flight of said chain against upward movement relative to said supporting bar, an electric motor supported on said side frame members, and a power transmission means connecting said motor to said driving shaft.

2. In a portable garment conveyor adapted to be angularly positioned as a complete unit within a building for transferring garments mounted upon wire garment hangers from one floor level to an upper floor level, a pair of side frame members arranged in spaced parallel relation, transverse frame members secured to said side frame members, a driving shaft journaled on one end of said side frame members, a driven shaft journaled on the other end of said side frame members, sprockets mounted on said driving and driven shafts and disposed between said side frame members, an endless chain mounted on said

sprockets, pusher members mounted at spaced intervals along said chain, a supporting bar secured to one of said side frame members and disposed directly below said chain to receive the hook portion of wire garment hangers, said pusher members being bifurcated at their outer ends to straddle said supporting bar, a guide plate secured to said transverse frame members in spaced parallel alignment above said supporting bar to engage the lower flight of said chain against upward movement relative to said supporting bar, an electric motor supported on said side frame members, a power transmission means connecting said motor to said driving shaft, each of said pusher members being recessed to provide a flat front face and an inverted U-shaped shoulder to receive and prevent upward displacement of the hook portion of a garment hanger from said supporting bar, the front face of each of said pusher members during movement upwardly along an inclined plane being disposed in substantially a vertical plane.

3. In a portable garment conveyor adapted to be angularly positioned as a complete unit within a building for transferring garments mounted upon wire garment hangers from one floor level to an upper floor level, a pair of side frame members arranged in spaced parallel relation, transverse frame members secured to said side frame members, a driving shaft journaled on one end of said side frame members, a driven shaft journaled on the other end of said side frame members, sprockets mounted on said driving and driven shafts and disposed between said side frame members, an endless chain mounted on said sprockets, pusher members mounted at spaced intervals along said chain, a supporting bar secured to one of said side frame members and disposed directly below said chain to receive the hook portion of wire garment hangers, said pusher members being bifurcated at their outer ends to straddle said supporting bar, a guide plate secured to said transverse frame members in spaced parallel alignment above said supporting bar to engage the lower flight of said chain against upward movement relative to said supporting bar, an electric motor supported on said side frame members, a power transmission means connecting said motor to said driving shaft, each of said pusher members being recessed to provide a flat front face and an inverted U-shaped shoulder to receive and prevent upward displacement of the hook portion of a garment hanger from said supporting bar, the front face of each of said pusher members during movement upwardly along an inclined plane being disposed in substantially a vertical plane, and stop means provided on said supporting bar to engage the hook portion of a garment hanger, said stop means being disposed adjacent the lower end of the upwardly moving flight of said chain and in the path of movement of the pusher members.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
898,209	Foster	Sept. 8, 1908
1,317,745	Watson et al.	Oct. 7, 1919
2,318,180	Morse	May 4, 1943