No. 869,351. PATENTED OCT. 29, 1907.

J. T. COWLEY.

CONVEYING APPARATUS.

APPLICATION FILED AUG. 7, 1905.

3 SHEETS—SHEET 1.

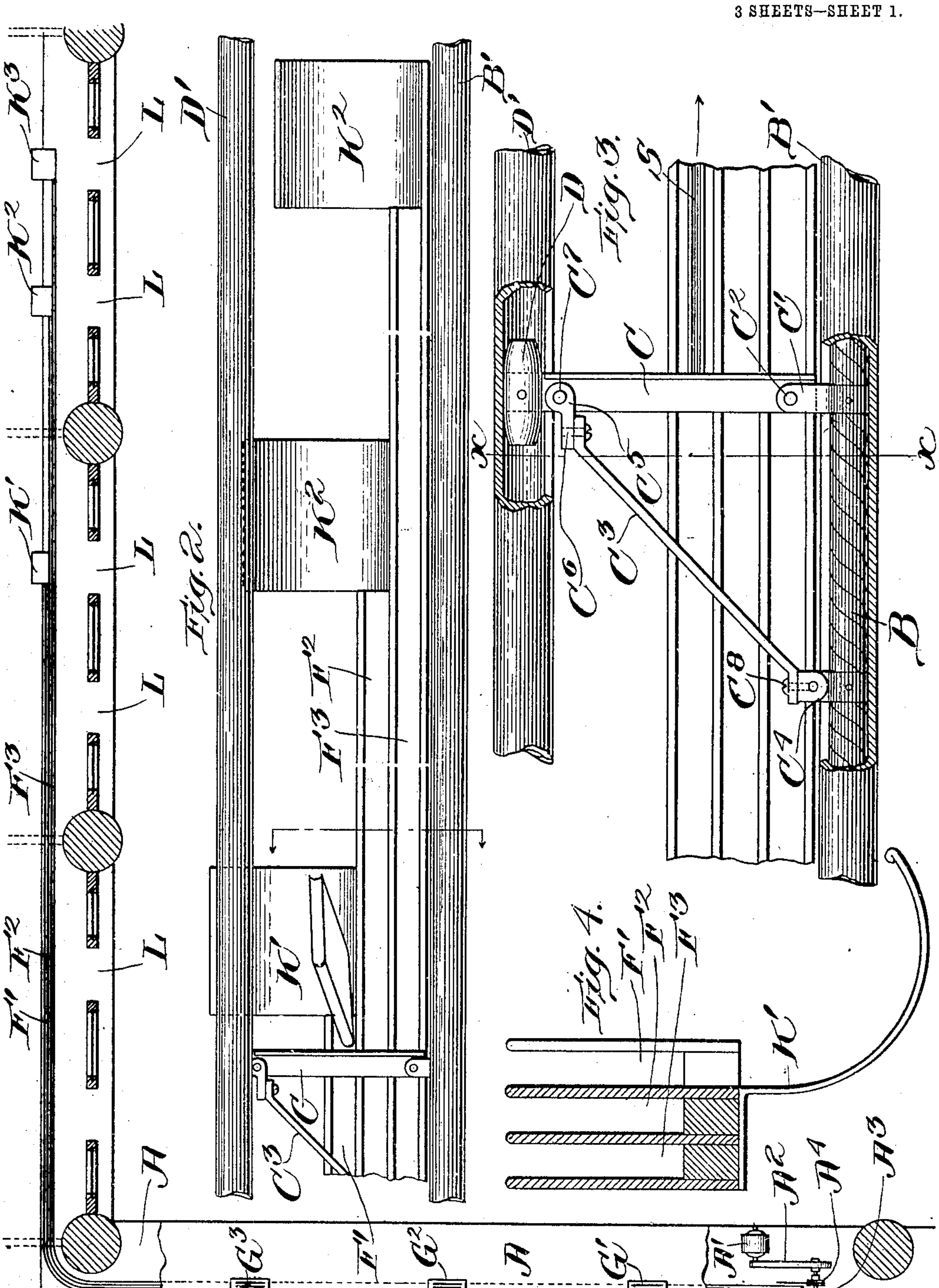

Fig. 1.

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3 SHEETS—SHEET 2.

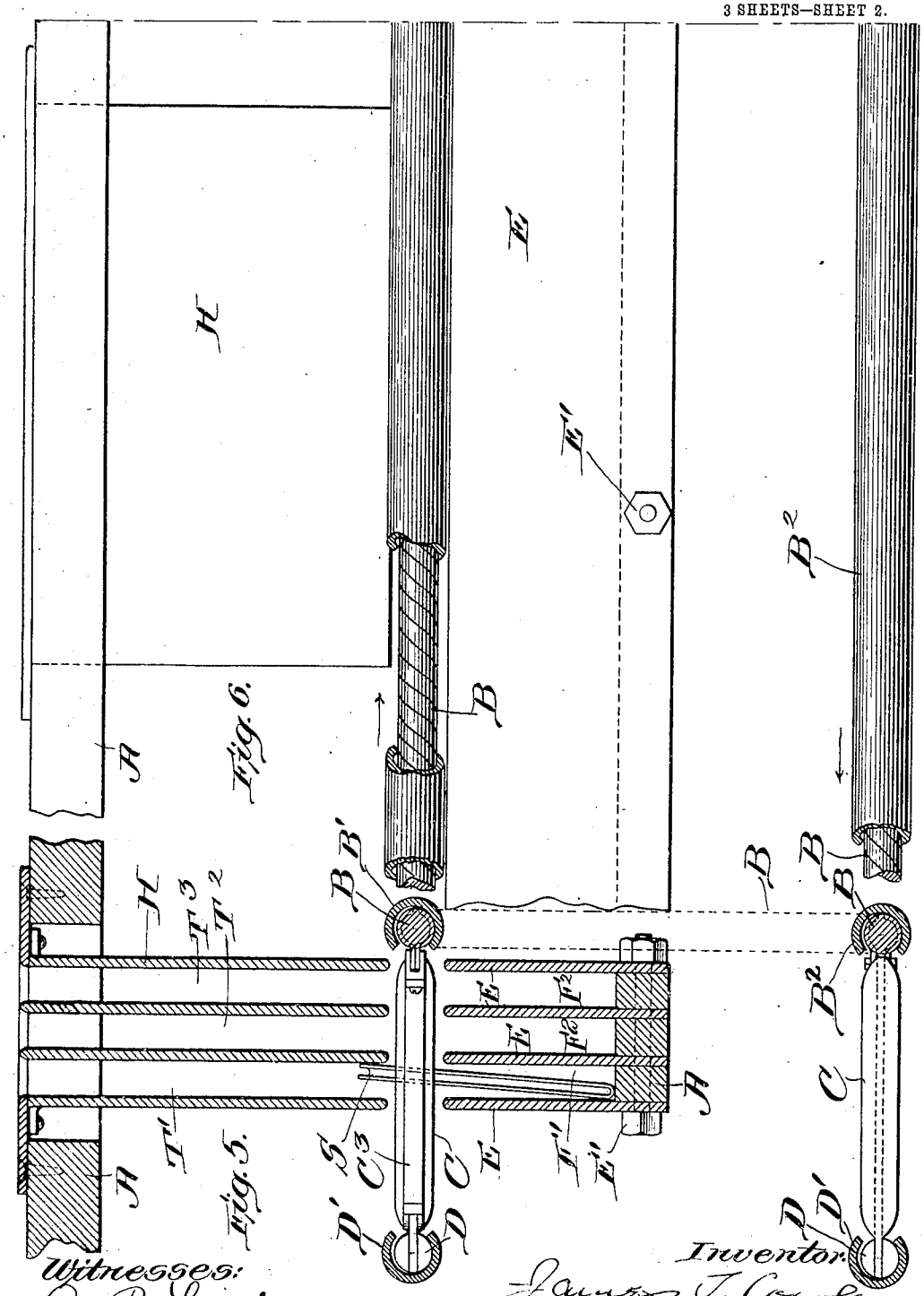

Fig. 6.

Fig. 5.

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3 SHEETS—SHEET 3.

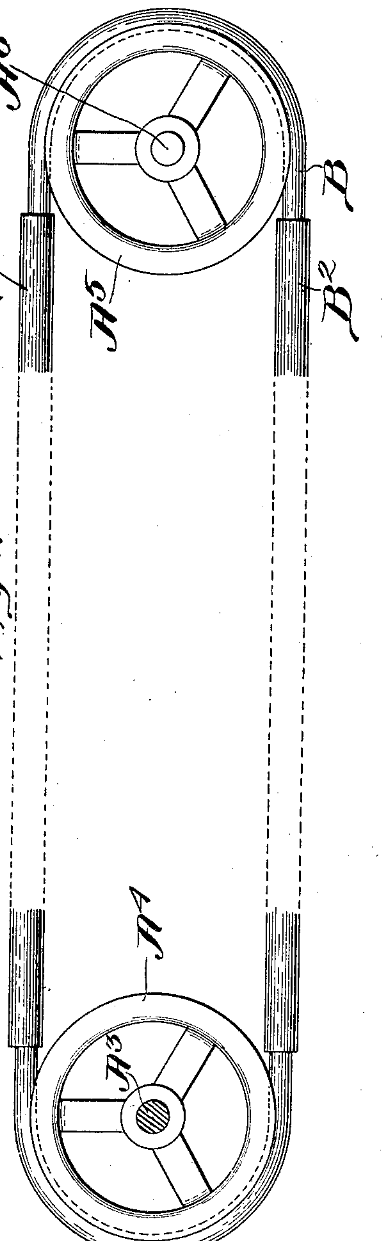

Fig. 7.

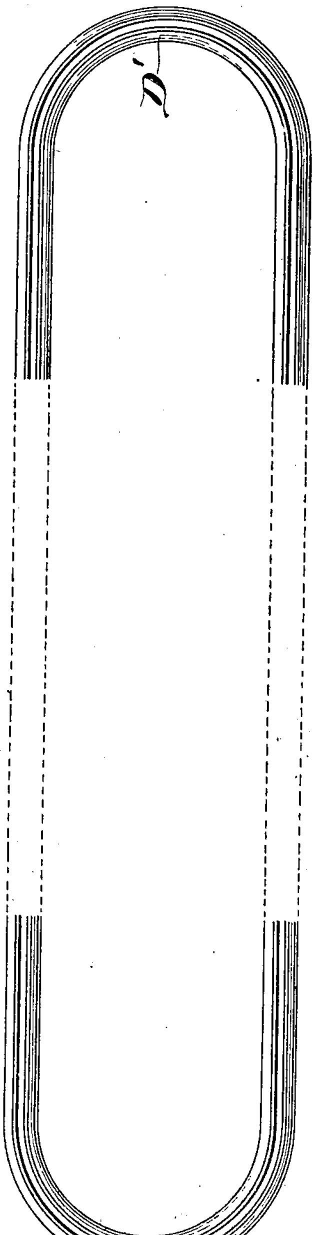

Fig. 8.

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UNITED STATES PATENT OFFICE.

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CONVEYING APPARATUS.

No. 869,351. Specification of Letters Patent. Patented Oct. 29, 1907.

Application filed August 7, 1905. Serial No. 272,943.

To all whom it may concern:

Be it known that I, JAMES T. COWLEY, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Conveying Apparatus, of which the following is a specification.

My invention relates to improvements in conveying apparatus, and its principal object is to furnish a system so constructed, combined and operated as to handle with facility and despatch, books, tickets or similar articles required to be conveyed or interchanged between stations or desks, as in banks, telephone offices and the like.

In the accompanying drawings which illustrate a construction embodying my invention, Figure 1 is a diagram showing the general arrangement of the system for conveying pass books in banks. Fig. 2 is an enlarged portion of the parts shown in Fig. 1 showing the location of the receiving stations. Fig. 3 is an enlarged plan view of a portion of the device showing the construction of the actuating mechanism. Fig. 4 is a section through the guide channels and showing the shelf for receiving the books. Fig. 5 is a sectional view of Fig. 3 on the line x x. Fig. 6 is a side elevation of Fig. 5. Fig. 7 is a side elevation of the belt mounted in the tube. Fig. 8 is a side elevation of the shoe tube.

Like letters of reference refer to like parts throughout the several views.

The motor A′ mounted upon the shelf or counter A (Fig. 1) drives the grooved pulley A^4 mounted upon the shaft A^3. The round endless belt B is mounted upon the said grooved driving pulley A^4 and the grooved pulley A^5 is mounted on the shaft A^6 (Fig. 7). The said belt B runs in the upper tube B′ and the lower tube B^2 both of which tubes are round and have longitudinal slots (Fig. 5) upon one side. The push bar C is fastened to the belt B by the metal clip C′ pivoted to said push bar C by the pin C^2 forming a joint. The other end of the push bar C is supported by the bar C^3, which bar is pivoted to the yoke C^5 by the screw C^6, the said yoke C^5 being pivoted to the push bar C by the pin C^7 forming a combination horizontal and vertical joint allowing the push bar to round the corners. The lower end of the bar C^3 is pivoted by the screw C^8 to the metal clip C^4 fastened around the belt B. The shoe D is pinned to the end of the push bar C and is adapted to travel in the metal tube D′ which has a longitudinal slot located therein allowing the travel of the push bar C. Similar push bars are similarly mounted at intervals upon the belt B. The longitudinal strips E are set in the lower part of the counter A and fastened by the bolts E′ forming the longitudinal channels or ways F′, F^2, F^3, for the passage of the articles. At the despatching stations G′, G^2 and G^3 (Fig. 5) the slotted frame H is drop fastened in a slot in the upper counter A and the slots T′, T^2 and T^3 therein allow the articles to be dropped through into the lower corresponding channels F′, F^2 and F^3.

Receiving stations K′, K^2 and K^3 are located at different points along the system and consist of a shelf located at the open terminus of each channel adapted to receive the articles pushed out of said channels. Openings L represent windows for the transaction of business.

The operation is as follows: The pass books or articles may be conveyed or distributed from any of the operators or book-keepers (as in a bank) located at the desks or despatching stations G′, G^2 and G^3, to any of the different tellers stationed at the counter in front of the windows represented by the receiving stations K′, K^2 and K^3. The operator or bookkeeper at despatching station G^2 desiring to despatch a pass book to the teller located at K′ drops the book through the slot T′ in said despatching station G^2 (Fig. 5) whereupon the book drops into the lower channel track F′. The next push bar C coming engages the book S carrying same along the channel track F′ in the direction indicated by the arrow (Fig. 3). Upon arriving at the open terminus of the channel track F′, the book drops out upon the shelf K′ (see Figs. 2 and 3). Pass books may be sent in similar fashion from any one of the despatching stations.

Having thus described the nature of my invention and set forth a construction embodying the same, what I claim as new and desire to secure by Letters Patent of the United States is:

1. In a conveying apparatus, a channel track or way, a chute or guide mounted over said channel track or way and adapted to guide articles into said channel track or way, an endless traveling belt or cable, an actuating bar pivoted to said belt or cable and adapted to engage said articles, means for supporting and guiding said actuating bar in its path of travel and means for receiving said articles from said channel track or way.

2. In a conveying apparatus, a channel track or way, a plurality of chutes or guides mounted over said channel track or way and adapted to guide articles into said channel track or way, an endless traveling belt or cable, a plurality of actuating bars pivoted to said belt or cable and adapted to engage said articles, means for supporting and guiding said actuating bars in their path of travel, and means for receiving said articles from said channel track or way.

3. In a conveying apparatus, a plurality of channel tracks or ways, a plurality of chutes or guides mounted over said channel tracks or ways, means in said chutes or guides for guiding articles into any of said channel track or ways, an endless traveling belt or cable, a plurality of actuating bars pivoted to said belt and adapted to engage said articles, means for supporting and guiding said actuating bars in their path of travel, and means for receiving said articles from said channel tracks or ways.

4. In a conveying apparatus, an endless belt or cable, pulleys mounted in suitable bearings supporting said endless belt or cable, means for driving said belt or cable, a

plurality of channel tracks or ways located adjacent the path of travel of said belt or cable, a receiving shelf or station located at the open terminus of each channel track or way, a plurality of chutes or guides mounted over said channel tracks or ways, means in said chutes or guides for predetermining the destination of articles to be conveyed along said channel tracks or ways, actuating bars pivoted to said belt or cable, bars pivoted to said cable and to the free ends of said actuating bars, shoes mounted on the free ends of said actuating bars, and the endless tube in which said shoes are supported and guided during their travel.

5. In a conveying apparatus, a channel-track or way, a chute adapted to guide and permit the insertion of articles into said channel-track or way, and projecting means for engaging and moving said articles along said channel-track or way.

6. In a conveying apparatus, a channel-track or way, a chute adapted to guide and permit the insertion of articles into said channel-track or way, projecting means for engaging and moving said articles along said channel-track or way, and means for receiving said articles from said channel-track or way.

7. In a conveying apparatus, a channel track or way, a chute adapted to guide and permit the insertion of articles into said channel track or way, means for engaging the upper ends of said articles in said channel track or way and for moving said articles along the same, and means for receiving said articles from said channel track or way.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses, this 28 day of July A. D. 1905.

JAMES T. COWLEY.

Witnesses:
WILLIAM WILCOX,
WM. H. EVANS.