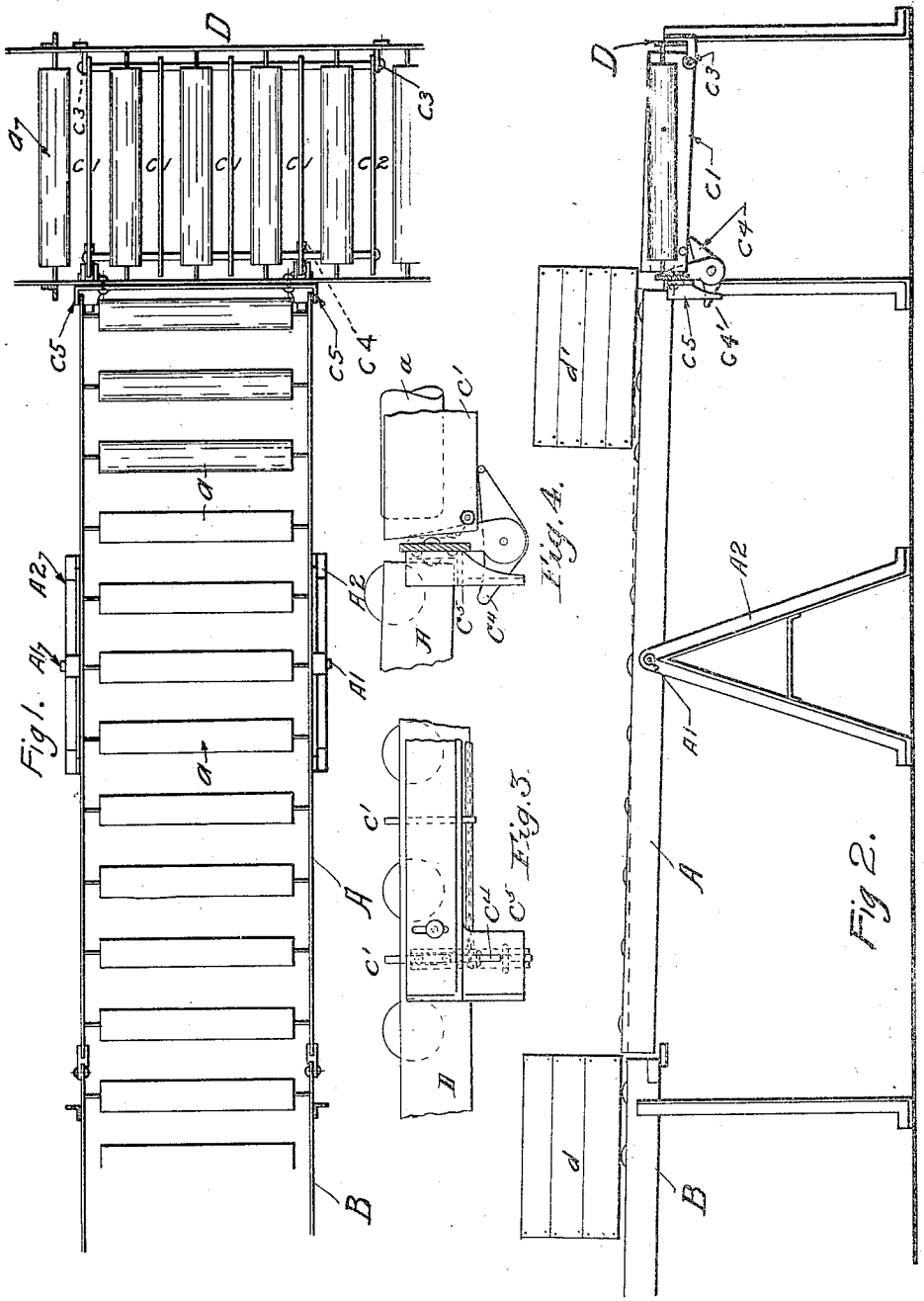
S. HEDRAIN.

AUTOMATIC GRAVITY CONVEYER.

APPLICATION FILED SEPT. 22, 1908.

914,832. Patented Mar. 9, 1909.



WITNESSES:

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STEN HEDRAIN, OF CHICAGO, ILLINOIS.

AUTOMATIC GRAVITY-CONVEYER.

No. 914,832. Specification of Letters Patent. Patented March 9, 1909.

Application filed September 22, 1908. Serial No. 454,267.

To all whom it may concern:

Be it known that I, STEN HEDRAIN, a citizen of the United States, residing at Chicago, county of Cook, State of Illinois, have invented a new and useful Improvement in Automatic Gravity-Conveyers, of which the following is a specification.

My nvention is related to gravity and power driven conveyers operated to transfer packages from the various departments of a store or factory to one central point, and consists in providing a main line track from the most distant point to the shipping room, or otherwise. Branch tracks from each department are constructed from any room to intersect the main line. The various lines are erected with an incline of sufficient grade to cause the packages to move by gravity. When the package or carrier reaches the intersection, it will be automatically transferred to the main track and move on to its destination.

Therefore, the objects of my invention are, 1st to provide an automatic transferring device at the intersecting points, dispensing with the hand labor now required at those places; 2nd, to provide a less expensive system of gravity conveyers than those now in use. I attain these objects by a mechanism illustrated in the accompanying drawing in which—

Figure 1 is a plan view showing the main track D, intersecting track B, rollers *a a*, and transferring frame C′. Fig. 2 is a longitudinal side view of the branch track showing the tilting section of the track A, and packages *d d′* in process of being transferred to main track; also a vertical end view of the main track D is shown with the transferring frame C′ elevated to receive the package *d′*, and the mechanism actuating the transferring frame. Fig. 3 is a front view of one half of the bracket, c^5; showing the slots therein. Fig. 4 is an enlarged view of the bracket c^5 and bell crank c^4, in detail.

Similar characters refer to similar parts throughout the several views.

In the system of conveyers herein shown a main track D is constructed from any part of the plant, consisting of a suitable frame of any material, having transverse independent rollers *a*, set at a suitable distance from each other; all tracks are built with an incline of about one half inch to the foot, more or less, to be governed by the class of goods to be carried down; at any required point the main track may be connected with a branch track, at any angle.

At the point where the branch track intersects the main track, a transferring frame consisting of a series of bars, C′ C′ C′ Fig. 1, is located between the rollers *a;* the bars are somewhat wider than the rollers and are bolted to each other, forming the frame. The frame is then pivoted to the outer rail of track D at c^3; the inner end of two of the bars rest on the arms of bell cranks, c^4, Fig. 2—the cranks are fixed to posts supporting the track. A vertically sliding bracket C^5 is attached to the face of the inner rail of track D having slots in each end; the bell cranks (c^4) are connected with the frame in the ordinary way.

The branch track B consists in a similar frame having transverse rollers *a*, a short section A is suspended near its center on a pivot A′, the whole section is supported by an A shaped post A^2 and may be tilted up or down; the upper end is made heavier than the other, and remains on a line with the stationary track when in position to receive a package. The inner ends of the side rails of the tilting section rest on the slidable bracket C^5, the outer arms of bell cranks $C^{4\prime}$ are placed in the slots in the ends of the slidable brackets, adapted to actuate the transferring frame.

In operation a package having been placed on the branch track, gravity will propel it downward passing on to the tilting section; when the package has passed the fulcrum A′ the added weight will cause the section to tilt down and set the bell cranks in motion, thus elevating the transfer bars to position to receive the package; as soon as the package is on the bars they will be depressed to a normal position and the package will pass on down the main track; if, however, another package should be following closely, the upper end of the tilting frame would hold it in check until the first had cleared the transfer bars—shown in Fig. 2 *d d′*. Should a package on the main track reach the transfer point just as the branch package was about to pass on to transfer bars; the bar C^2 Fig. 1 would be in an elevated position and would thus stop the package until the first package had caused the bars to return to the normal position, when both packages would move down together thus preventing any package from blocking any branch or main track.

Having described my invention and its operation, I do not wish to confine myself to

the specific form of the tilting section, as the A shaped support may be dispensed with and the tilting section may be hinged to the stationary track. But

What I do claim and wish to secure by Letters Patent is:

The combination in an automatic conveyer of the transferring frame pivoted to a conveyer track, the bell cranks adapted to actuate the said transferring frame, the tilting section pivotally suspended, the vertically slidable bracket adapted to engage said tilting section, said slidable bracket actuating the bell cranks, substantially as described.

STEN HEDRAIN.

Witnesses:
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