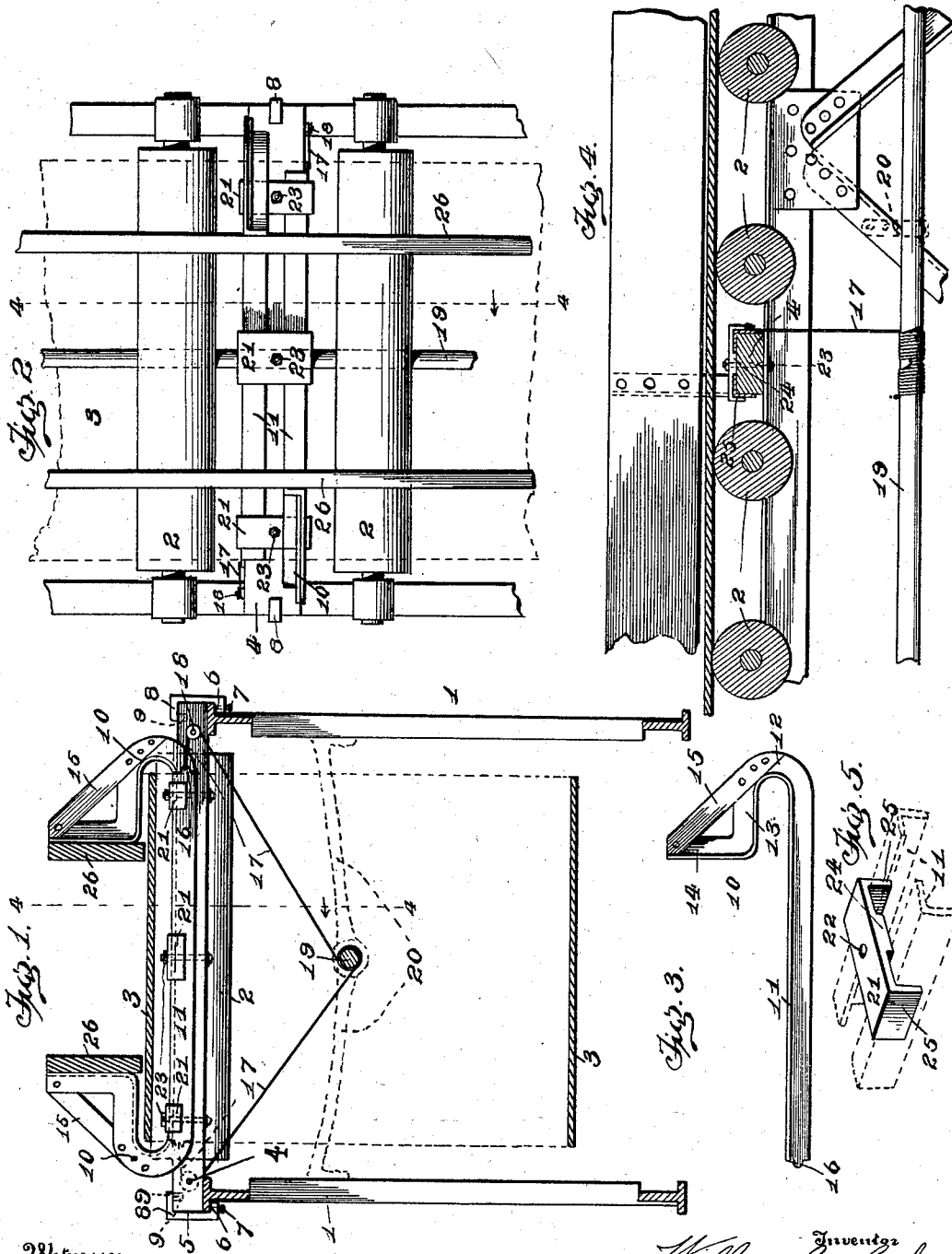


No. 705,778.

Patented July 29, 1902.

W. L. McCABE.
PORTABLE CONVEYER.
(Application filed Nov. 7, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

WILLIAM LEGGETT McCABE, OF SEATTLE, WASHINGTON.

PORTABLE CONVEYER.

SPECIFICATION forming part of Letters Patent No. 705,778, dated July 29, 1902.

Application filed November 7, 1901. Serial No. 81,414. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM LEGGETT McCABE, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Portable Conveyers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in portable conveyers, and more particularly to improvements in means for guiding the articles conveyed.

It consists in combination, with a suitable framework and an endless carrier-belt, of a plurality of laterally-movable brackets at either side of said belt and guiding-strips connecting the same and means for moving the brackets toward or away from each other.

It also consists of certain other novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 represents a transverse section through the framework, a carrier-belt, and guiding-strips involving the features of my invention, the brackets thereof being shown in elevation. Fig. 2 represents a fragmentary top plan view of a portion of my conveyer, illustrating one set of brackets. Fig. 3 represents a detailed side elevation of one of the brackets. Fig. 4 represents a longitudinal vertical section on line 4 4 of Fig. 2 looking in the direction of the arrow; and Fig. 5 represents an enlarged detailed perspective view of one of the guiding-brackets, portions of the laterally-movable brackets being shown in dotted lines.

In the art to which this invention relates it has been found desirable to provide in connection with endless carrier-belts means for guiding the articles conveyed, and to this end I contemplate employing, as seen in the drawings, any suitable framework, as 1, having rollers 2 journaled therein, over which is passed a carrier-belt, as 3.

At suitable intervals intermediate the length of the framework 1, arranged transversely thereof and connecting the sides, are

secured beams, as 4, of any preferred material, and secured by means of clamps 5 to the longitudinally-extending rails of framework 1. The said rails are preferably in the form of T-rails. Each of the clamps 5 is formed with an inwardly-projecting lug 6, carrying a suitable screw 7, adapted in use to be screwed against and press the outwardly-extending flange of the said T-rail, the upper end of said clamp being provided with a projection, as 8, extending inwardly and resting upon the upper face of transverse beam 4 and carrying a downwardly-extending lug, as 9, designed to enter said beam, whereby said beam is securely held in position upon said T-rails.

At either side of each of the transverse beams 4 is slidably supported a bracket, as 10, each of the brackets being preferably formed of an angle-iron and having a lower straight arm, as 11, bent, as at 12, at the outer end thereof, preferably extending a short distance, as at 13, in a parallel plane of arm 11, and then bent at right angles to itself and extended upwardly, as at 14. Any suitable cross-bars, as 15, may be employed for securing the upper end 14 to the bend 12 for strengthening purposes. The arm 11 of each of the brackets 10 is arranged with the flanges of its angle extending on the top side of beam 4, as best seen in Fig. 4, and slidably longitudinally thereof, the two brackets 10 being arranged on opposite edges of each beam 4, whereby the arm 11 may overlap to any desired extent without contact. The inner end of each of the arms 11 is preferably provided with a suitable eye, as 16, designed to carry a cable, as 17, which cable is passed about the pulley 18, supported at the side of beam 4, and from said pulley the cable 17 passes downwardly and is secured to a suitable shaft, as 19, arranged longitudinally of the framework 1. The shaft 19 is preferably supported by any suitable means, as supports 20, carried by the framework 1.

In order to prevent the arms 11 when in operation leaving the transverse beam 4, any suitable number of brackets, as 21, may be employed. These guiding-brackets are each preferably formed with a central aperture, as 22, through which is passed a bolt or other securing means, as 23, said bolt being also

passed through beam 4 for retaining the bracket 21 in position. A centrally-arranged lug, as 24, extends downwardly from the bracket 21 and is designed to compensate for the space between the body portion of said bracket and the guided upper flange of arm 11, suitable side flanges, as 25 25, being formed upon each of the brackets 21 for contacting with and retaining in position the side flanges of arms 11.

Any preferred form of guiding-strip, as 26, extends for approximately the length of the carrier-belt 3 and is designed to in operation be moved inwardly with the movement of the brackets 10, whereby any size of article conveyed may be guided in its movement.

From the foregoing it will be noted that the rotation of shaft 19 will draw upon cable 17, and thereby move brackets 10 laterally toward each other, all of said brackets being similarly formed, and thereby acting in unison, carrying the entire length of strips 26 for a given distance toward each other. Any suitable means may be employed for preventing reverse rotation of shaft 19, whereby articles of a particular size conveyed by the belt 3 will be guided by the strips 26; but said shaft 19 is preferably left free for rotation, whereby after the strips 26 are set at a predetermined distance from each other for guiding articles of a given size should any larger articles be placed upon the belt the strips 26, being slidably flexible, would gradually give way, moving the brackets 10 laterally outward as the said article passed throughout the length of the upper portion of the belt 3.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a mechanism of the class described, the combination with a suitable framework, of a transversely-arranged beam, brackets slidably mounted thereon, a roller supported at either end of said beam, a cable connected to one end of each of said brackets and passed over one of said rollers, and a shaft extending longitudinally of said framework and secured to said cables, whereby rotation of said shaft is designed to move said brackets, substantially as described.

2. In a mechanism of the class described, the combination with a suitable framework, of beams arranged transversely thereto, a bracket slidably supported at each side of each of said beams, means for moving each of said brackets longitudinally of its respective beam, and guiding-strips extending longitudinally of said framework at the sides thereof and connecting all of the brackets of their respective sides, substantially as described.

3. In a mechanism of the class described, the combination with a suitable framework, having T-rails extending longitudinally thereof, of a transversely-arranged beam, means for clamping the ends thereof to the

opposite T-rails, slidably-mounted brackets carried by said transverse beam, and means for moving said brackets toward each other, substantially as described.

4. In a mechanism of the class described, the combination with a suitable framework, having T-rails arranged longitudinally thereof on opposite sides, a transverse beam connecting said T-rails, a clamp at each end of said beams and formed of a vertical member, a horizontal member integral therewith, a lug extending downwardly therefrom designed to enter the material of the end of said transverse beam, a horizontally-extending lug projecting from the lower end of said vertical member, a screw threaded therethrough and designed to be screwed against the lower face of the outer flange of said T-rail, and means supported by said beam for guiding articles passed over the said framework, substantially as described.

5. In a mechanism of the class described, the combination with a suitable framework, and laterally-moving brackets at the opposite edges of said belt supported by said transverse beam, each of the brackets comprising a lower straight member, an upwardly-curved portion, a horizontal portion in a parallel plane to the lower portion, and a vertical portion extending upwardly from said horizontal portion, the curved portion being designed to inclose one edge of said belt when the brackets are brought toward each other, substantially as described.

6. In a mechanism of the class described, the combination with a suitable framework, of a beam supported thereby, oppositely-arranged brackets slidably mounted upon said beam, each of said brackets being formed of angle-irons and having a straight portion designed to fit one of the longitudinal corners of said beam, and a guiding-bracket carried by said beam and inclosing the flanges of the straight portion of each of said slidable brackets, substantially as described.

7. In a mechanism of the class described, the combination with a suitable conveying means, and a transversely-arranged beam of laterally-slidable brackets supported thereby, each of the brackets being formed with an L-shaped straight portion designed to engage and slide longitudinally of one of the longitudinal corners of said beam, a plurality of guiding-brackets secured to said beam, and provided with flanges designed to partially inclose and retain in position the flanges of said L-shaped straight portion of each of said brackets, and means for moving said brackets longitudinally of said beam, substantially as described.

8. In a mechanism of the class described, the combination with a suitable framework, and a carrier-belt supported thereby of transversely-movable brackets mounted upon said framework, guiding-strips on both sides of said framework and connecting all the brack-

ets upon their respective sides, a cable secured to each of said brackets and passed about the bearing on the opposite side of said framework, and a rotatably-mounted shaft extending longitudinally of said framework, the free
5 ends of said cables being secured to said shaft, whereby rotation of said shaft is designed to move the said brackets of the opposite sides

of the framework toward each other, substantially as described.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

WILLIAM LEGGETT McCABE.

Witnesses:

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