(No Model.)

D. H. LINTNER.

CONVEYER.

No. 551,866. Patented Dec. 24, 1895.

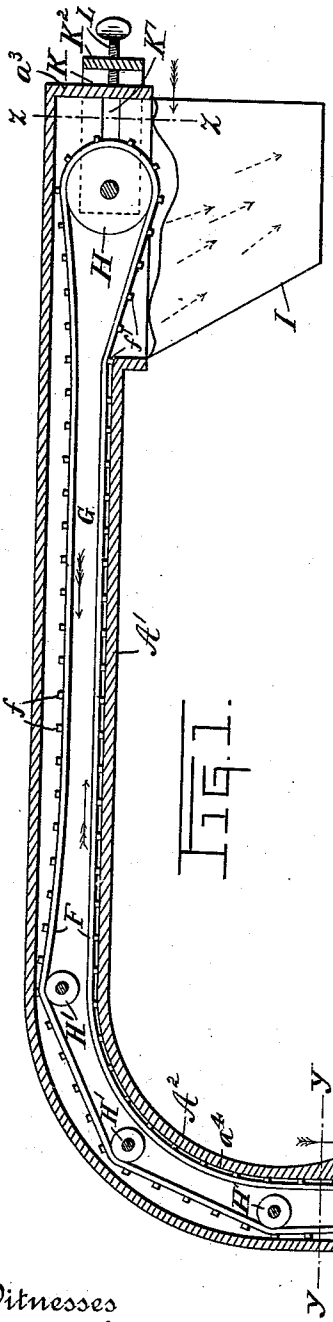

FIG. 1.

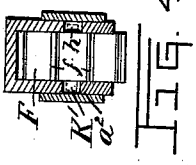

FIG. 4.

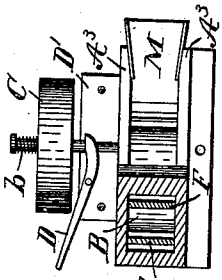

FIG. 3.

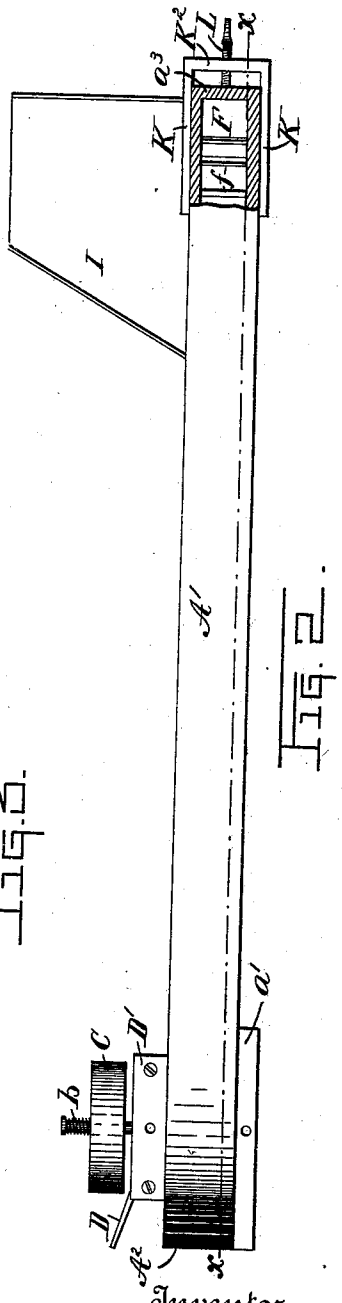

FIG. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

DANIEL H. LINTNER, OF LANCASTER, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO WILLIAM M. JACOBS, OF SAME PLACE.

CONVEYER.

SPECIFICATION forming part of Letters Patent No. 551,866, dated December 24, 1895.

Application filed May 24, 1894. Serial No. 512,276. (No model.)

To all whom it may concern:

Be it known that I, DANIEL H. LINTNER, a citizen of the United States, residing in Lancaster, in the county of Lancaster, State of Pennsylvania, have invented certain Improvements in Conveyers, of which the following is a specification.

In cigar-bunching machines large quantities of scraps escape therefrom during the process of bunching, and these scraps are caught in baskets or other receptacles and then emptied back into the hoppers of said machines. To do this and at the same time prevent the wasting of scraps additional watchfulness and labor are imposed on the operatives, which detracts from the attention to the machines themselves and the operation of the same to their full capacity. The object of this invention is to overcome these objections and to automatically return such scraps to the receptacles from which said bunching-machines are fed.

With this object in view the invention consists in the construction and combination of the various parts, as hereinafter fully described, and then pointed out in the claims.

In the accompanying drawings, which form a part of this specification, Figure 1 is a longitudinal vertical section of the conveyer on the broken line $x\,x$ of Fig. 2, and Fig. 2 a top view of the same, a portion of the case being cut away to show the belt-tightener. Fig. 3 is a horizontal section on the broken line $y\,y$ of Fig. 1, and Fig. 4 a vertical section on broken line $z\,z$ of Fig. 1.

Similar letters indicate like parts throughout the several views.

Referring to the details of the drawings, A indicates the upright arm of the case of the conveyer; A′, a horizontal arm, and A^2 a curved section connecting the vertical and horizontal arms. For the purposes of this specification the arms A and A′ of the case are shown in the drawings and referred to herein as being respectively vertical and horizontal arms; but in practice the conveyer can be placed in any position in which it may be most convenient to have it operated. The base of the vertical arm A has therein a receiving-opening, on opposite sides of which are cheek-pieces or wings A^3, extending inward beneath horizontal arm A′ and connected by a cross-bar a. Along the lower edge of the base is a rib a', whereby that end of the case is secured in a fixed position, the free end of the horizontal arm A′ being supported in any suitable manner.

Between cheek-pieces A^3 is located a large pulley B, mounted on a shaft B′, journaled in said cheek-pieces A^3 and having one end extending outward and carrying a belt-pulley C, held in gear for operating the shaft by a spring b, coiled around the end of shaft B′ outside of pulley C. This pulley is thrown out of gear by a lever D, fulcrumed between plates D′, projecting from the face of the adjacent cheek-piece A^3. Further description of this operating-pulley and the means for throwing it in and out of gear are not given, as the construction is a common one and forms no part of this structure on which claims are based.

Above pulley B is journaled an intermediate pulley E, smaller than pulley B, and which is located to guide endless conveying-belt F to the inner face of the adjacent side a^4 of the upright arm A of the case. The inner face of said pulley E is in line with the inner face of side a^4 of the curved portion of case A just above it, as illustrated in Fig. 1. Belt F passes up, around and over the inner face of the upright, curved and horizontal portions of the inner side of the channel G formed by the case to and around a pulley H, journaled, as will be hereinafter described, in the free end of the horizontal arm A′ of said case, thence back beneath the outer wall of said channel to and over guide-pulleys H′, located adjacent to the terminal and central portions of the said curved section A^2, and thence down and around the pulley B. On the outer face of belt F there are secured transverse ribs f. The alignment of pulley E with the inner face of the side of the portion of the case above it is made so that ribs f may have a continuous bearing, or a bearing as nearly continuous as possible, for their outer faces to prevent the scraps carried by them from escaping or falling backward.

The pulley H is of greater diameter than the horizontal arm of the channel of the case, and is journaled above a delivery-opening in

the free end of said horizontal arm, the lower face of said pulley H extending into said delivery-opening, so as to carry belt F below the bottom of the channel. Beneath said delivery-opening is secured a chute I, which receives and deflects the material carried by belt F into a suitable receptacle. (Not shown.) The depression of belt F by pulley H is sufficient to cause ribs *f* to pass down over the edge of the channel G above chute I with a sharp jerk or impetus, so as to free the tobacco therefrom, for when wet or damp the tobacco scraps are apt to stick to said ribs and the belt.

To the free end of horizontal arm A′ is attached a frame having jaws K parallel with and embracing the walls of horizontal arm A′. On the inner faces of jaws K are formed ribs K′, which extend through slots a^2 of said walls of arm A′. In these ribs K′ are journaled the spindles *h* of roller H. The outer ends of jaws K are connected by a cross-piece K^2, and through this cross-piece passes a set-screw L, the inner end of which has a bearing in the end wall a^3 of the free end of arm A′, whereby roller H is adjusted to regulate the tension on belt F.

Resting on cross-bar *a*, connecting cheek-pieces A^3, is preferably placed a chute M to feed scraps or other matter to belt F. The delivery end of this chute discharges below intermediate pulley E and above the rise of pulley B, so that matter transferred therefrom is engaged by ribs *f* toward the top of said pulley B. Thence the scraps are carried to and around pulley E, and by the pressure of ribs *f* on the adjacent side of the case are carried around and on the under surface of channel G until they are delivered onto chute I.

The chute M is arranged, as described, that the scraps may me more evenly distributed along the front of ribs *f*, as otherwise they would lump up in front of said ribs and tend to push the same away from pulley E and the bottom of the channel, whereby openings would be formed under said ribs, through which portions of the scraps would fall or be drawn backward, and, by accumulating in masses, prevent the proper working of the mechanism.

As will be understood from the construction herein described and shown, the carrier receives the waste scraps from the machine on belt F as it passes over or above pulley B, and thence carries said scraps back to chute I, from which they are delivered into the receptacles for the same, to be again fed to the bunching-table.

I do not limit myself to the details of construction herein shown and described, as it is obvious that many changes may be made therein without departing from the spirit of my invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a conveyer, the combination, with a case having an upright arm provided with an opening in the receiving end thereof, cheek-pieces on opposite sides of said opening, an arm extending back over said cheek-pieces and having a delivery opening in its free end, and a curved section connecting said arms, of an end pulley journaled in the cheek-pieces, an end pulley journaled in the case above said delivery opening, an intermediate pulley journaled in the case above the pulley journaled in the cheek-pieces, said intermediate pulley having its inner face in line with the inner face of the case, guide-pulleys journaled in the curved section of the case, a belt having transverse strips and passing around said end pulleys, over said guide-pulleys, and over the inner face of the intermediate pulley, and means for delivering material below the intermediate pulley onto the face of the moving belt as it passes over the pulley journaled in the cheek-pieces, substantially as and for the purpose specified.

2. In a conveyer, the combination, with a case having an upright arm provided with an opening in the receiving end thereof, cheek-pieces on opposite sides of said opening, an arm extending back over said cheek-pieces and having a delivery opening in its free end, and a curved section conneeting said arms, of an end pulley journaled in the cheek-pieces, an end pulley journaled in the case above said delivery opening, an intermediate pulley journaled in the case above the pulley journaled in the cheek-pieces, said intermediate pulley having its inner face in line with the inner face of the case, guide-pulleys journaled in the curved section of the case, a belt having transverse strips and passing around said end pulleys, over said guide-pulleys, and over the inner face of the intermediate pulley, the pulley journaled above the delivery opening extending below the delivery edge of said opening, whereby the belt passes below said delivery edge with a jerk or impetus, so that moistened tobacco may be loosened from contact with said belt, and means for delivering material below the intermediate pulley onto the face of the moving belt as it passes over the pulley journaled in the cheek-pieces, substantially as and for the purpose specified.

D. H. LINTNER.

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