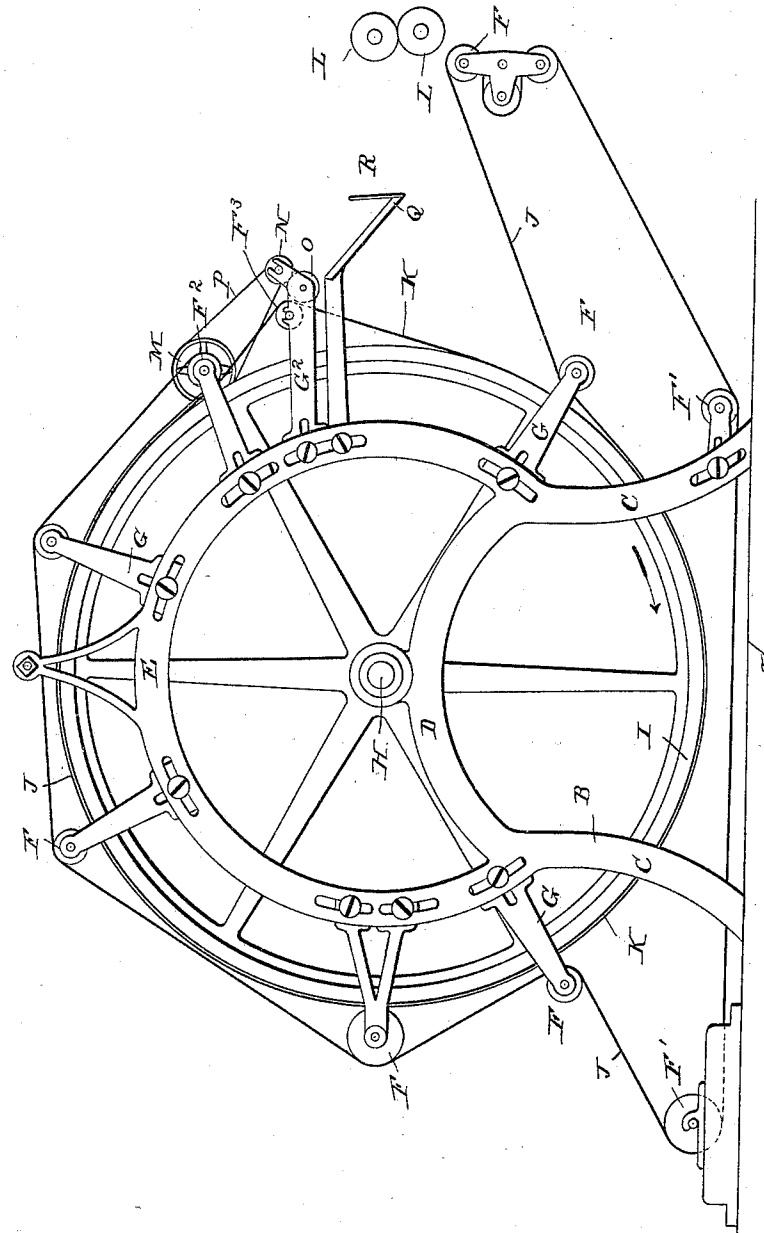
(No Model.)

J. WEST.

APPARATUS FOR DELIVERING PAPER ARTICLES.

No. 448,285. Patented Mar. 17, 1891.



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES WEST, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO SAMUEL CUPPLES, OF SAME PLACE.

APPARATUS FOR DELIVERING PAPER ARTICLES.

SPECIFICATION forming part of Letters Patent No. 448,285, dated March 17, 1891.

Application filed July 9, 1889. Serial No. 316,939. (No model.)

To all whom it may concern:

Be it known that I, JAMES WEST, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Apparatus for Delivering Paper Articles, of which the following is a specification.

The invention relates to improvements in apparatus for separating paper bags, envelopes, or other articles which are overlapped upon bands conveying them from the machine in which they have been manufactured.

The principal part of my invention is the improved delivering device, by means of which the bags or envelopes are delivered in piles upon a platform from the carrier-band upon which they are conveyed to said delivering device.

The invention is represented in the accompanying drawing, the figure showing my apparatus in elevation.

A is the base or support, and B is the supporting frame-work consisting of the standards or uprights C C, the cross-piece D, and the upper circular portion E.

F F F are rollers mounted in bearings in the arms G G G, which latter are adjustably secured to the upper circular part E of the supporting-frame.

F′ F′ are other rollers, also suitably mounted.

Journaled in the cross-piece D is the main driving-shaft H, to which motion is imparted from any suitable source of power, and to which is suitably secured the main supporting or drive wheel or drum I.

J is an endless carrier or tape passing around the rollers F F′ F^2, and round a large portion of the main drive-wheel I and K is an endless band or tape passing round the drum and round a roller F^3, which holds it in position projected forward from the wheel I. The bands or tapes receive their motion from the wheel I and serve the purpose of conveying the bags or envelopes to the delivering apparatus, and the tape J serves the purpose of transmitting motion to the apparatus through the roller F^2.

L L are feed-rolls by means of which the bags or envelopes are delivered from the machine in which they have been made upon the carrier band or tape J in a series, one overlapping the other.

My distributing mechanism is shown arranged between the rollers F′ F^2, where the band K projects beyond the wheel I, and it consists of a roller N, mounted upon an arm G^2 and having a more rapid surface movement than that of the band.

A supplemental roller O is loosely mounted in the arm G^2 beneath and in contact with the roller N and a belt P, passing around pulleys on the shafts of the rollers N and M, the pulley on the shaft of the roller M being the largest.

Q is a platform which is preferably inclined, upon which the bags or envelopes are piled, and R is a guard thereon for holding them in position.

The operation of my device is as follows: The main drive-wheel I, receiving its motion from the main driving-shaft H, revolves in the direction of the arrow. This transmits motion to the bands or tapes J and K, and the latter are carried in the direction indicated, and a rotary motion is also transmitted to the roller N of the distributing device. Simultaneously with the above the paper bags or envelopes are delivered upon the carrier band or tape J by means of the feed-rolls L L, which move faster than the band J, so that the articles take a position upon the carrier-band, each one a little in advance of the next overlapping and succeeding one, so that each projects beyond the other. They are carried on the top of the belt J in this position until the latter meets the other carrier band or tape K at the point of contact with the drive-wheel I, when they pass between the carrier-belts and are carried round the wheel I until they pass onto the inclined projecting part of the band K. During this course the bags or envelopes are subjected to the drying action of heated surfaces or dry air, the object of overlapping being to permit a larger number of articles to be dried at a time in a limited space, the gummed or dampened portions only being exposed. From the roller F^3 the band K carries the articles to the rollers N and O. Here, by reason of the more rapid

movement of these rollers, each bag or envelope in succession is seized between the rollers N O and is drawn rapidly forward and is thrown outward and falls out upon the platform Q before the end of the succeeding bag is brought to the rollers. In this manner the bags are separated and piled up regularly and evenly. The foregoing operation may be continuous.

Should the carrier bands or tapes become loose or slack during the operation just described, they may be made taut by means of the adjustable arms G G G, upon which the tape-rollers are mounted.

It will be evident that the more rapid movement can be conveyed to the drawing-rollers N O by any suitable belting or gears from any moving part of the machine, and that the parts may be differently arranged from the arrangement described without departing from the main features of my invention. Thus the carrier-bands may be arranged in any suitable way to convey the articles while drying to the drawing-rollers, and a single drawing-roll with a stationary surface beneath may be substituted for a pair of drawing-rolls as an equivalent thereof.

Without limiting myself to the precise construction and arrangement of parts shown, I claim—

The combination, with continuously-moving contacting bands and means for supplying thereto articles in a series, one overlapping the other, said bands moving at less speed than such means, of a drawing mechanism moving at a greater rate of speed than the series of articles and arranged and adapted to successively seize the projecting portion of each of the articles and carry it forward more rapidly than the remaining articles and separate it from the series, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES WEST.

Witnesses:
N. G. PIERCE,
J. M. KERR.