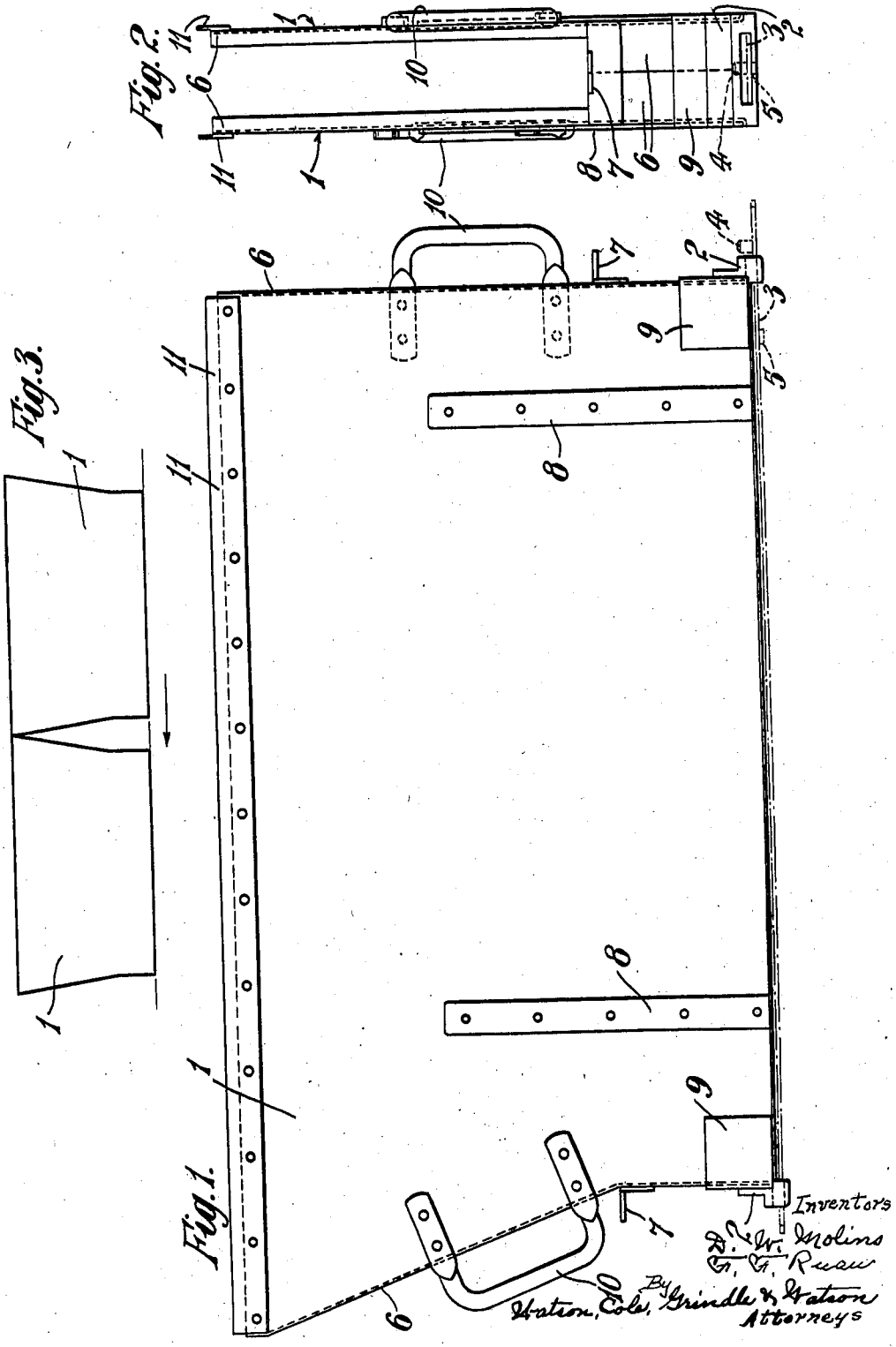
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RECEPTACLE

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RECEPTACLE

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1 Claim. (Cl. 220—1)

This invention concerns improvements in or relating to receptacles in or for use with collecting mechanism for cigarettes, filter wads and other rod-shaped articles.

It is known to fill hoppers of automatic cigarette packing machines from receptacles which are placed on the hopper and from which cigarettes are allowed to fall into the hopper by withdrawing a sliding bottom on the receptacle. Such receptacles are provided with lugs or brackets or other projecting elements at their ends to fit on the hopper.

It is an object of the present invention to provide receptacles having such end projecting elements, which can be used to replenish existing packing machine hoppers and which can themselves be automatically filled.

According to the present invention there is provided a receptacle having end projecting elements, wherein the receptacle is so arranged as to permit the tops of two such receptacles to be in engagement when such receptacles are similarly oriented and placed in end to end abutting relationship for the purpose of enabling the receptacles to be filled automatically by collecting mechanism of the kind in which rod shaped articles, e. g. cigarettes, are, during movement in a direction transverse to their longitudinal axes, delivered into a receptacle, which latter is movable in a manner such that articles are delivered first into one end of the receptacle and thereafter to successive positions along the length of the receptacle as the leading end of the latter becomes filled approximately to the desired extent, the articles being directed into the receptacle by a downwardly inclined guide which projects into the receptacle. The purpose of enabling the receptacles to be filled automatically by collecting mechanism of the kind mentioned above is referred to hereinafter and in the claim as "the purpose specified."

The upper portion of each end of the receptacle may comprise spaced elements (e. g. the end walls are slotted) and the end projecting elements are at the lower portion of each end. The spaced elements extend outwardly (i. e. in the direction of the length of the receptacle and of the end projection) to enable the tops of two similarly oriented endwise abutting receptacles to be in contact with one another.

Two embodiments of this invention will now be described by way of example with reference to the accompanying drawing in which—

Figure 1 is a side elevation of a receptacle for cigarettes.

Figure 2 is an end elevation of Figure 1.

Figure 3 shows to a small scale an outline of two receptacles for cigarettes, in end to end abutting relationship, the receptacles in this case being of a different pattern from that shown in Figure 1.

Referring to Figures 1 and 2 of the drawing, a receptacle for the purpose specified comprises two parallel side walls 1 comprising plates between which the cigarettes are held, the plates lying adjacent the end faces of the cigarettes. Two slotted cross-bars 2 connecting the plates at the bottom support a slidable plate which is arranged to be withdrawn at will to allow the contents to fall out. This plate is shown in chain lines for clearness. It is provided with two stops 4 and 5 which prevent accidental displacement of the plate, for example, during transport. The stop 5 is so dimensioned that when it is desired to withdraw the plate, the latter is lifted slightly by grasping it near the stop 4 and on pulling the plate the stop 5 can pass through the slot in the neighbouring cross-bar 2. At each end of the receptacle there is a wall 6 slotted at the upper portion but continued across the full width of the receptacle at the lower end so as to permit the article guide to extend within the receptacle. The end walls have end-projections 7 which are adapted to act as locating devices when the receptacle is placed on a hopper of a cigarette packing machine. The wall 6 is formed by bending the ends of the side plates 1.

The side walls increase in length towards their upper ends so that at the top of the receptacle the slotted end wall at the left hand end overhangs the end-projections so that when two such receptacles similarly oriented are in endwise abutment, the tops of the receptacles are in engagement. In Figure 1 the receptacle has side walls having one end vertical while the other end slopes outwardly. In Figure 3 both ends are sloped outwardly. The two receptacles shown in this view are in end to end abutting relationship and when the receptacles are being filled by collecting mechanism (e. g. the mechanism described in the specification of our co-pending application for United States Letters Patent Serial No. 443,175, filed concurrently herewith), the receptacles travel in the direction of the arrow.

It will be perceived from Figure 2 of the drawing of the instant application that the medial slots in the end walls 6 of the receptacle are so spaced from each side wall as to leave flanges extending toward each other, these flanges act-

ing to retain the cigarettes or other articles in the receptacle when the articles are delivered in the manner disclosed in our co-pending application aforementioned.

The automatic speed regulation described in said application automatically increases the speed of the receptacles when the filling is changing from one receptacle to the next, since during the transition stage the normal rate of feed of the cigarettes relative to the normal speed of the receptacle is too high.

The walls of the receptacle are stiffened by straps 8 and corner brackets 9. Receptacle supporting means, comprising handles 10, 10 are provided for lifting and carrying the receptacles. At the top of the side walls there are provided guides 11 which register with co-operating members on the collecting mechanism and control the receptacles laterally during their movement on said mechanism. All the parts above described which are fixed on the walls of the receptacle are riveted thereto. Some of these rivets are indicated but others are omitted for clearness.

Whilst the embodiments described above by way of example concern receptacles for cigarettes, the invention is applicable to receptacles for collecting other rod-shaped articles such as rod-shaped filter wads, imitation cigarettes, dummy cigarettes or the like.

What we claim as our invention and desire to secure by Letters Patent is:

A receptacle for small articles constructed for movement with a succession of like receptacles in endwise abutting relation beneath an article discharge point in an automatic filling machine, said receptacle comprising side and end walls forming a narrow, elongated, relatively deep, open topped structure, and receptacle supporting means projecting lengthwise from said end walls below the top thereof, at least one end of the receptacle having the upper portion thereof extended in an endwise direction to abut an end wall of the next succeeding receptacle at the top thereof, leaving a gap therebetween at the bottom to accommodate said supporting means, the upper portions of the end walls of the receptacle having medial slots extending downwardly from the top thereof to at least half the depth of the end walls, leaving lateral flanges extending inwardly from each side wall for retaining the articles within the receptacle while permitting the passage through the slots of article guide means positioned to extend into the receptacle for directing the flow of discharging articles into the same.

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