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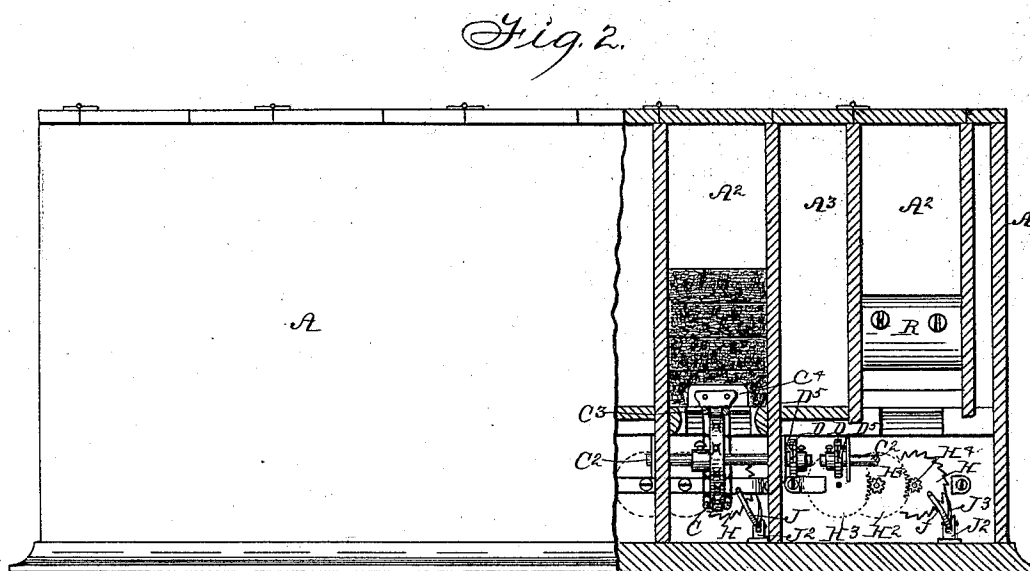
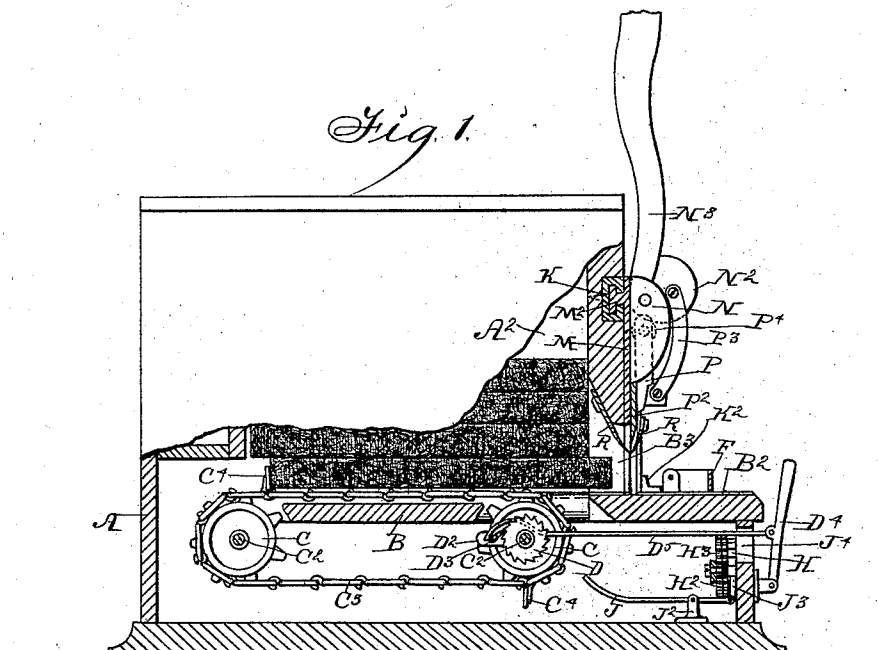
2 Sheets—Sheet 1.

R. G. WHITLOCK.

PLUG TOBACCO RECEPTACLE, CUTTER, AND REGISTER.

No. 537,795.

Patented Apr. 16, 1895.



Witnesses:
P. H. Orwig
H. Orwig, Jr.

Inventor: Ralph G. Whitlock,
By Thomas G. and J. Ralph Orwig,
Attorneys

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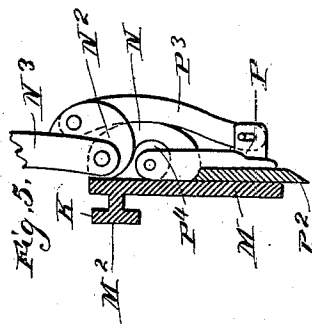
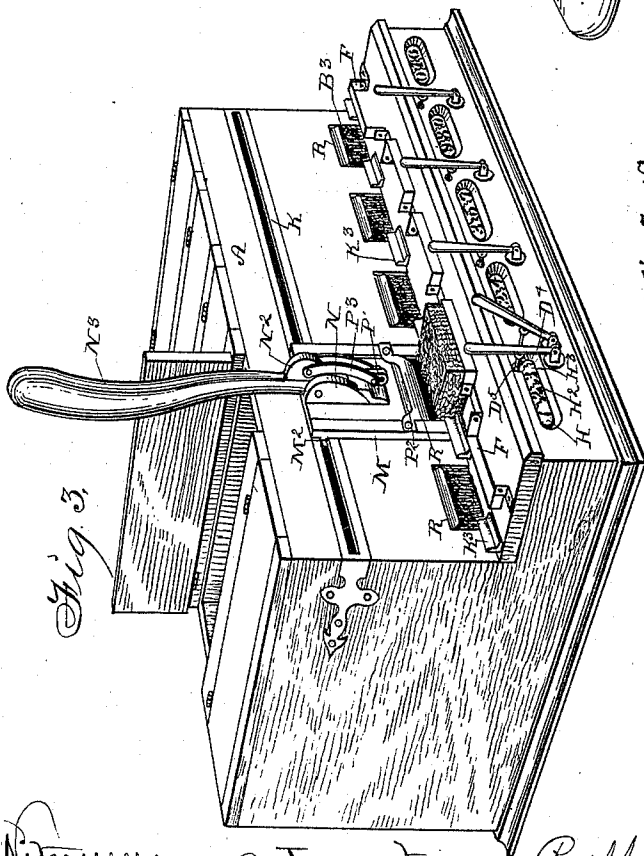
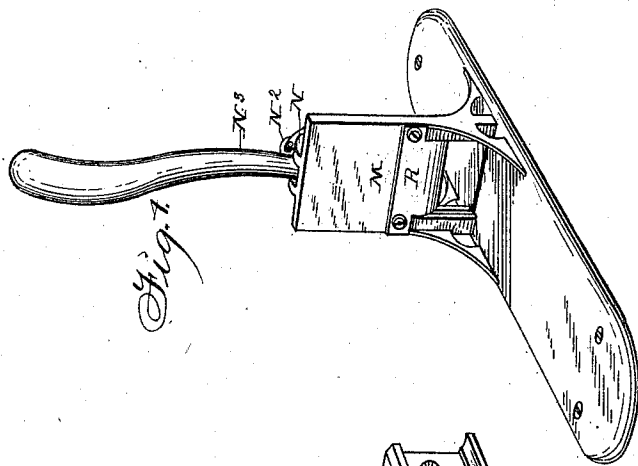
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UNITED STATES PATENT OFFICE.

RALPH G. WHITLOCK, OF DES MOINES, IOWA, ASSIGNOR TO THE WHITLOCK TOBACCO FIXTURE AND CUTTER COMPANY, OF SAME PLACE.

PLUG-TOBACCO RECEPTACLE, CUTTER, AND REGISTER.

SPECIFICATION forming part of Letters Patent No. 537,795, dated April 16, 1895.

Application filed March 29, 1894. Serial No. 505,656. (No model.)

To all whom it may concern:

Be it known that I, RALPH G. WHITLOCK, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented a new and useful Plug-Tobacco Receptacle, Cutter, and Register Combined, of which the following is a specification.

The object of this invention is to provide a neat and attractive device adapted to be used by retail tobacco sellers and having a number of receptacles therein each of the size and shape of an ordinary box of plug tobacco, adapted to receive the contents of a box of plug tobacco and adapted to preserve the same in good condition. My object is further to provide said receptacle with means whereby the lower plug may be projected outwardly from either of the aforesaid compartments, and my object is further to provide an improved cutting knife adapted to sever the said projected end, and to provide a registering device adapted to indicate upon the front of the machine the number of plugs taken from each compartment thereof.

My invention consists in the construction, arrangement and combination, with a receptacle having a series of compartments therein for holding the contents of a box of tobacco, of means for projecting the lower plug through an opening in the front of the compartment, an improved knife slidably mounted to be used in severing plugs from any compartment and improved means for registering the number of plugs projected through the openings, as hereinafter set forth, pointed out in my claims and illustrated in the accompanying drawings, in which—

Figure 1 is a side view of the complete device with parts broken away to show the construction of the cutting knife, and mechanism for projecting the lower plug of tobacco. Fig. 2 is a rear end view of the complete device with a part of the frame broken away to show certain details of construction. Fig. 3 is a front view of the complete device; and Fig. 4 is a view of a modified form of the cutting knife adapted to be used independently of the receptacle. Fig. 5 is a detail view showing the knife and knife operating mechanism.

Referring to the accompanying drawings, the reference letter A is used to indicate a suitable frame, rectangular in general outline and provided with a series of compartments A² extended transversely thereof with spaces A³ between them, each compartment being of a size and shape adapted to receive the contents of an ordinary sized box of plug tobacco so that the said plugs may lie therein in layers, the one above the other, and each of said spaces being adapted to receive a suitable packing material which may be dampened if desired in order to preserve the tobacco in a moist state.

B indicates a supplemental bottom placed in the said compartments, and B² is a shelf at the front of the device in alignment with the said bottom.

B³ is an opening in the front of each compartment through which a plug of tobacco may be projected from the supplemental bottom of said compartment. Means are provided for projecting the plugs of tobacco through said opening from either one of said compartments and means for registering the number of plugs passed therethrough. These devices are similar in each of said compartments and are identical in construction so that but one set will be hereinafter described.

The means for advancing the plugs comprise two sprocket wheels C mounted in alignment, beneath the supplemental bottom of the compartment upon shafts C² which are mounted in suitable bearings and are arranged to rotate freely in either direction.

C³ indicates a sprocket chain passing over said wheels with its top portion arranged to travel in a groove formed in the supplemental bottom B so that its top surface is parallel with the aforesaid bottom.

C⁴ C⁴ indicate plates fixed to and projecting upwardly from the said sprocket chain at diametrically opposite ends thereof adapted to engage the rear end of the lower plug in the receptacle when rotated, and when the chain is advanced it will be obvious that the plug will be projected through the opening at the front of the compartment.

D indicates a ratchet wheel fixed to one end of the forward one of the axles C². D² is a lever pivotally connected with said axle in

close proximity to the said ratchet wheel, and D³ is a spring actuated detent mounted on said lever and adapted to engage the ratchet teeth of the wheel. To operate said lever
 5 from the front of the device, I have provided a lever D⁴ pivoted in a suitable support in the front of the device and connected with a rod D⁵ which is also connected with the outer
 10 end of the said lever D² so that, when the lever D⁴ is drawn forwardly or outwardly from the device, the lever D² will be drawn upwardly and forwardly and the ratchet wheel D
 be rotated part of a revolution, and when said lever D⁴ is pushed backwardly the spring
 15 actuated detent D³ will travel over the ratchet teeth on the wheel D and be in position to again engage and advance the same upon the further operation of the lever D⁴.

F indicates a gage composed of a piece of
 20 metal with its ends pivoted to suitable up-rights on the platform B² in alignment with the opening B³ and having its sides bent first forwardly and then at right angles so that when a plug is projected through the opening
 25 B³ it will engage the transverse portion of the said gage, to thereby predetermine the length of the plug to be cut off. By pivoting said gage it will be seen that it may be readily swung in an opposite direction so that when
 30 a plug is projected through said opening it will engage the said gage and be cut off at different lengths. It will now be obvious that by an operation of the lever D⁴ the plug of tobacco may be projected through the opening
 35 B³ and cut off in suitable lengths, and it will be obvious that when a complete plug or a layer has passed through said opening that one of the plates C⁴ will be moved past a given point.

40 In order to register automatically the number of plugs that have passed through the compartment, I have provided a series of wheels mounted on independent axles fixed to the front of the device. The first one indicated by
 45 the letter H has ratchet teeth formed on its periphery, and upon its front face near its periphery a series of digits ranging from 0 to 9, at equi-distant spaces thereon.

H² and H³ are cogwheels having like numerals on their forward faces and adapted to
 50 be operated by means of the gear wheels H⁴ the first of which is fixed to the axle of the ratchet wheel H to mesh with the teeth on the second wheel, the numbers of teeth on these
 55 respective wheels being in proportion of one to ten and the second gear wheel H⁴ being fixed to the axle of the wheel H² to engage the periphery of the third wheel, the proportions of the teeth of these two wheels being the
 60 same as the other.

J indicates a lever pivotally mounted in a suitable support J² and having its forward end adapted to be engaged by the plates C⁴ and on its opposite end a pawl J³ adapted to
 65 engage a tooth on the wheel H and rotate said wheel one-tenth of a revolution each time the lever is operated. A suitable elongated open-

ing J⁴ is made in the front of the device through which one digit on each of the afore-said wheels may be seen. By this arrange-
 70 ment it will be seen that as each plug of tobacco is removed through the opening B³ the first or units wheel will be rotated one-tenth of a revolution so as to show a different num-
 75 ber through the opening J² each time that a plug passes through said opening; and when said wheel has performed a complete revolution the next or tens wheel H² will have been moved one-tenth of a revolution and when
 80 the said second wheel has been moved a complete revolution the third or hundreds wheel will have been moved one-tenth of a revolution.

To provide for severing the plugs of tobacco that are projected through the opening B³, I
 85 have provided a knife adapted to be operated vertically to cut off as much of said plug as is projected through said opening, and in order to make one of said knives suffice for a series of receptacles I have provided a track
 90 K fixed to the forward surface of the receptacle and extended through its entire length and an angle iron K² fixed to the top surface of the shelf B².

M indicates a frame having a projection M²
 95 adapted to enter the track K and projecting downwardly so that its lower end will pass between the front of the receptacle and the angle iron K² so that the said frame and parts fixed thereto may be moved upon the face of
 100 the receptacle so as to assume a position above any one of the openings B³.

N indicates two lugs projecting forwardly from the face of the said frame, and N² is a cam pivoted eccentrically between said lugs
 105 and having a lever or handle N³ projecting upwardly therefrom.

P indicates a frame arranged to slide vertically relative to the frame M and having a knife blade P² fixed to its lower end, and
 110 P³ indicates two links pivotally connected with the cam N² and the frame P, and P⁴ is a roller mounted in the top of the frame P and adapted to engage the lower surface of the cam N², the connection between the part P³
 115 and the frame P being capable of allowing a slight vertical movement relative to each other. It will now be obvious that a downward motion of the lever N³ will press the knife blade P² downwardly and when said
 120 knife blade has almost reached the downward limit of its movement, the cam N² will engage the roller P⁴ and press the knife more forcibly than the links P³ could do, and when the handle is elevated the said links will also
 125 elevate the knife. To provide for cleaning said knife automatically, I have located two sharpened blades R on opposite sides thereof with their ends meeting to normally be in a position above the plug of tobacco but capable of being pressed outwardly by the knife
 130 blade P² when it descends.

In practical operation a series of plugs of tobacco of different kinds may be placed in

the various receptacles as they are taken from the box in which they are shipped; or the original package may be placed inside of the receptacle intact. Then to project a portion of the lower plug in either of said boxes outwardly, the lever D⁴ corresponding to said receptacle, is moved outwardly a sufficient number of times to project the plug as far as required. Then the carriage or frame holding the knife may be moved transversely of the machine so as to assume a position directly above the plug to be cut. An operation of the lever connected with the said knife will sever the projected portion of the plug so that but one knife is necessary for the series or row of compartments, and it will be obvious also that the recording mechanism will register the exact number of plugs or layers taken from the box.

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

1. The combination in a plug tobacco retailing device, of a receptacle adapted to receive the contents of a box of plug tobacco and having an opening in alignment with its bottom means for projecting the lower plug of tobacco through the said opening, a knife mounted on the front of the receptacle adapted to sever the projected plug, means actuated by the tobacco and projecting means for registering the number of plugs passing through the device, substantially as and for the purposes stated.

2. In a device for retailing plug tobacco, the combination of the following elements, to-wit: a suitable receptacle having a supplemental bottom and an opening in its forward face in alignment with said bottom, means adapted to be operated from a point outside of the receptacle for projecting the bottom plug through said opening, and a frame fixed to the front of said receptacle having two outwardly projecting lugs, a cam pivoted between said lugs, a lever projecting upwardly from said cam, a second frame slidably mounted in the first to move vertically and normally in a position above the said opening, a roller mounted in the top of said sliding frame to engage the aforesaid cam, and two links pivotally connected with the aforesaid cam and slidably connected with the sliding frame, and a knife blade fixed to the lower end of said sliding frame.

3. In a device for retailing plug tobacco, the following elements in combination, to-wit: a suitable receptacle having a supplemental bottom and an opening formed in its front in alignment with said bottom, two sprocket wheels journaled beneath said bottom, a sprocket chain passing over said wheels and above said bottom, one or more projections fixed to said sprocket chain to engage the lower plug, means for advancing the said chain and suitable registering mechanism arranged to be capable of being seen through the front

of the frame, and a lever pivotally mounted in a suitable support and adapted to be engaged by said projections on the chain and operate said registering mechanism to display a numeral of a denomination greater by one unit each time it is engaged by said projection, substantially as, and for the purposes stated.

4. A knife for severing plug tobacco into suitable lengths, comprising a suitable frame, two projections on its front face, a cam pivoted eccentrically between said projections, a lever formed on or fixed to said cam, a frame slidably mounted in the aforesaid frame, a knife blade fixed in the said sliding frame, and a roller journaled in its top to normally engage the aforesaid cam, two links pivotally connected with the cam and slidably connected with the sliding frame, and two knife blades fixed to the stationary frame and adapted to engage the front and rear surfaces of the knife blade when projected downwardly, substantially in the manner set forth, and for the purposes stated.

5. In a device for retailing plug tobacco, the combination of a series of receptacles each adapted to receive a number of plugs of tobacco, having a supplemental bottom in each compartment and an opening in the front thereof in alignment with said bottom, means substantially as described for projecting the lower plug in any of said compartments through said opening, and a knife adapted to be operated vertically to sever the projected portion of a plug, and a track fixed to the forward face of the device and means for mounting said knife on said track so that the knife may be moved to a position above any of said openings in the various compartments, for the purposes stated.

6. In a device for retailing plug tobacco, the combination of a series of receptacles each adapted to receive a number of plugs of tobacco, having a supplemental bottom in each compartment and an opening in the front thereof in alignment with said bottom, means substantially as described for projecting the lower plug in any of said compartments through said opening, and a knife adapted to be operated vertically to sever the projected portion of a plug, and a track fixed to the forward face of the device and means for mounting said knife on said track so that the knife may be moved to a position above any of said openings in the various compartments, and means whereby the number of plugs taken from the bottom of each compartment may be registered for the purposes stated.

7. An improved device for retailing plug tobacco, comprising a suitable receptacle having a series of compartments therein and suitable spaces between each compartment adapted to receive a packing material, having a supplemental bottom in each compartment, and an opening in the front of each compartment in alignment with said bottom, two sprocket wheels journaled in each compart-

ment below the supplemental bottom, a sprocket chain passing thereover and above the said supplemental bottom, two projections adapted to engage the lower plug of tobacco, 5 means substantially as described for advancing said chain, indicating wheels arranged and combined as shown, a lever adapted to be engaged by projections on the chain to operate the first of said indicating wheels one-tenth of a revolution for the purposes stated, 10 a track fixed to the front of the device and extending throughout its entire length, a

frame mounted in said track to slide and means for severing plugs of tobacco, slidingly mounted on said track and adapted to be 15 brought into alignment with any one of the compartments, all arranged and combined substantially in the manner set forth and for the purposes stated.

RALPH G. WHITLOCK.

Witnesses:

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