

Nov. 27, 1934.

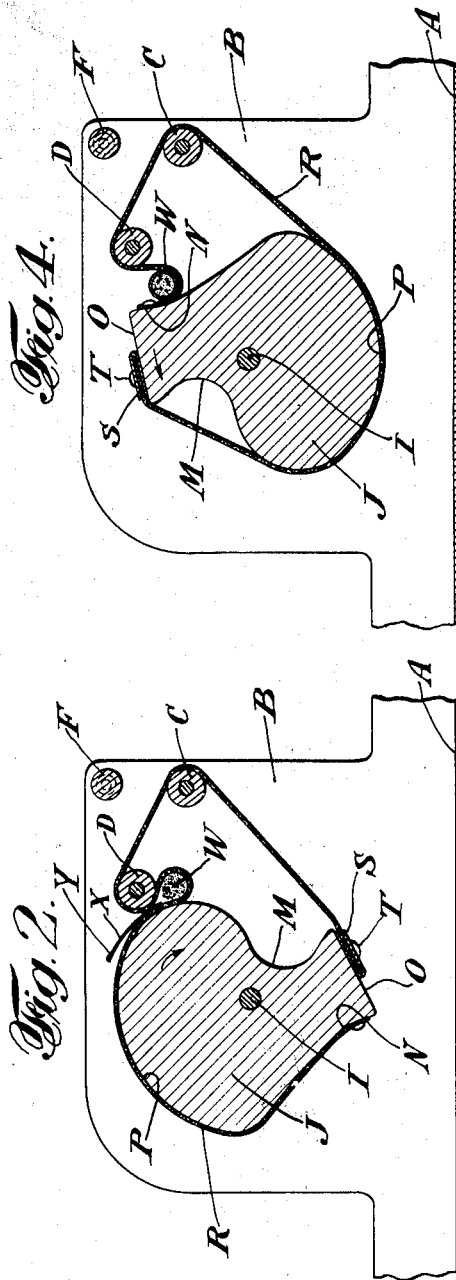
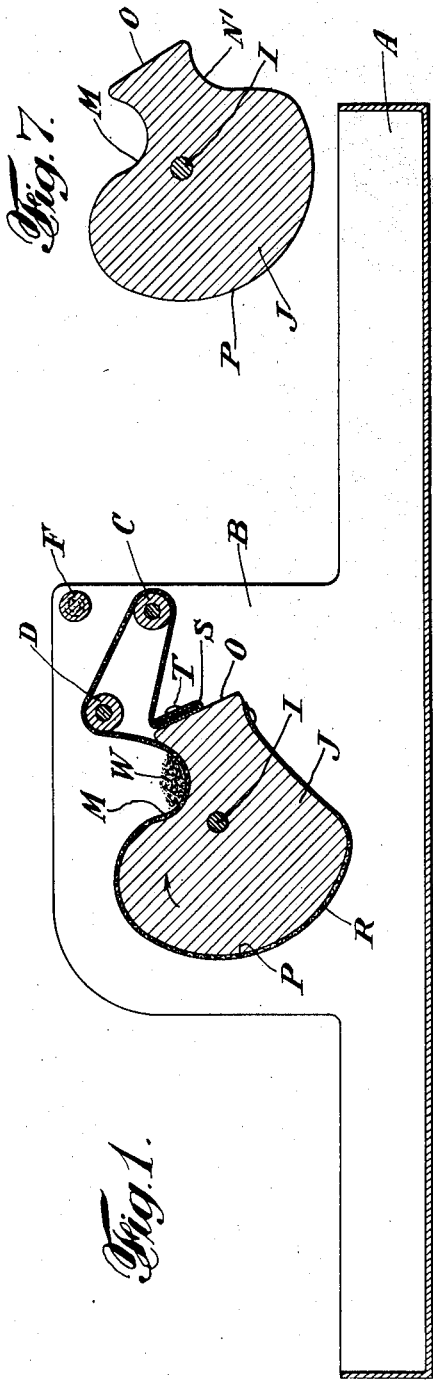
J. W. ASH

1,982,365

CIGARETTE ROLLING MACHINE

Filed Aug. 22, 1931

2 Sheets-Sheet 1



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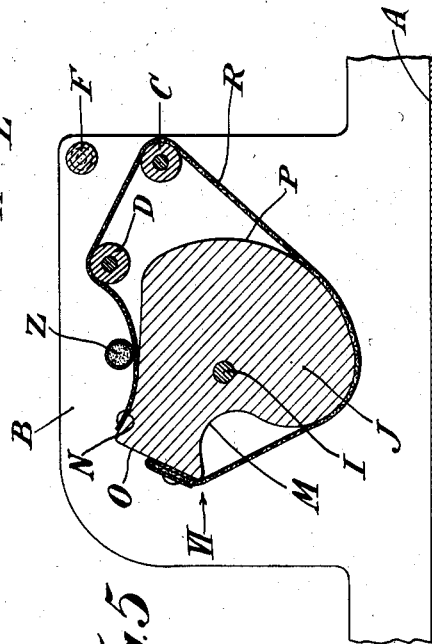
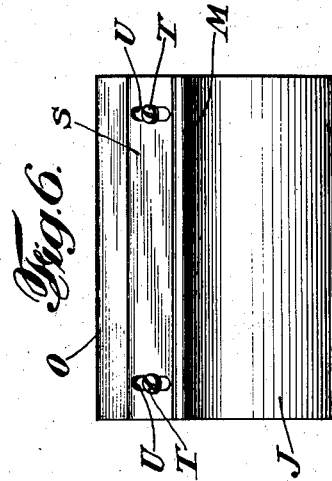
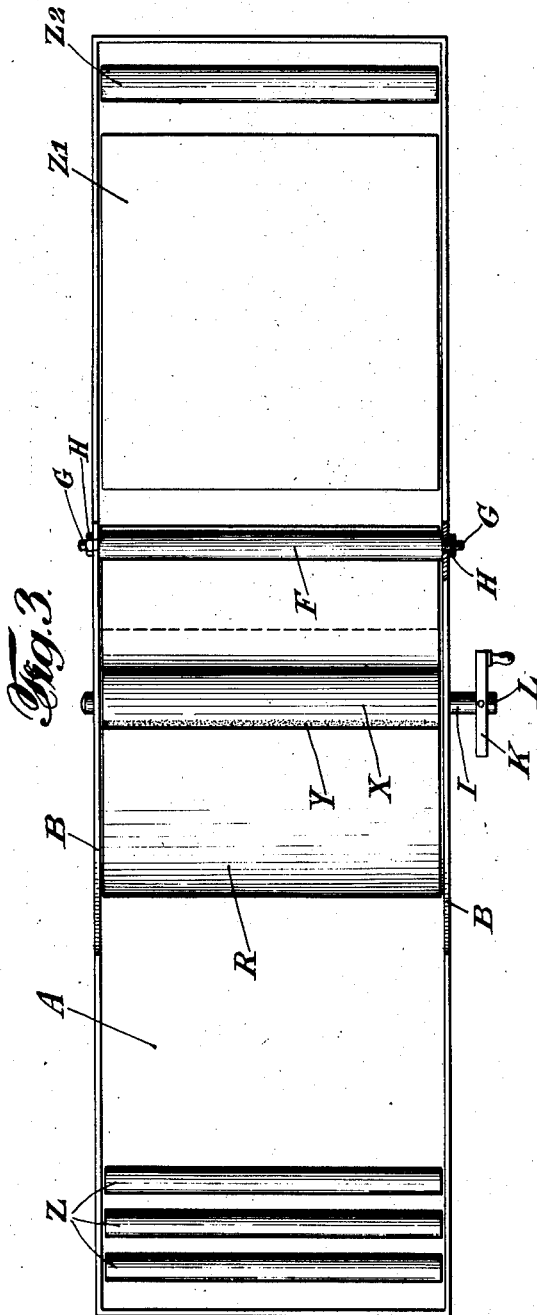


Fig. 5
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UNITED STATES PATENT OFFICE

1,982,365

CIGARETTE ROLLING MACHINE

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Application August 22, 1931, Serial No. 558,647

3 Claims. (Cl. 131-5)

My invention relates to cigarette rolling machine and is particularly addressed to providing a machine whereby cigarette smokers may purchase any desired kind of tobacco, or may have any mixture made of tobacco, and roll their own cigarettes using their preferred tobacco and also forming the cigarette of such size in diameter as they may prefer. With the machine I provide also a receptacle adapted to contain the necessary material, such as a package of tobacco and the cigarette paper. I also provide a receptacle for the cigarettes after they have been rolled and a receptacle to catch any surplus tobacco which is not enclosed in the cigarette and which may be saved for future use.

In the drawings forming part of this application, Figs. 1, 2, 4 and 5 are longitudinal sectional views through my machine illustrating position of the machine at various steps in the rolling of the cigarette. Fig. 3 is a top view of the machine as illustrated in Fig. 2. Fig. 6 is a view of the eccentric roller showing the plate for adjusting the size of the cigarette. Fig. 7 is a cross-sectional view of a modification of the eccentric roller.

In the drawings in which like characters relate to like parts, A is a tray consisting of a plate having an upwardly extending flange to provide the walls of the tray. Extending from the top of the walls of the tray are the sides B, B which form supports for the cigarette rolling means. Loosely mounted in the side walls B, B are two rollers C and D. F is a cross rod connecting and firmly holding the side walls B, B in position. This cross rod consists of a solid bar having small screw threaded extensions G, G which pass through the opening in the walls B, B and upon which are screwed the nuts H, H to hold the side walls in fixed position relative to each other. I is a bolt forming an axle for an eccentric roller J. The axle or bolt I has an extension at one end which passes considerably beyond the wall B and to which is affixed a handle K consisting, as shown, of a small rod fitting over the end of the axle I and a small rod fitting over the pin L. The eccentric roller J may be of any desired material although I have found wood satisfactory for the purpose. This eccentric roller J is fixedly secured to the axle I so as to rotate therewith. The roller J is provided with an arc shaped surface P which, at all points, is substantially the same distance from the axis of the axle I. This surface constitutes as shown an arc of slightly over 90°. At the end of the portion P the surface of the eccentric roller J turns inward and then

outward forming a concave pocket M. The end of this concave pocket surface is connected with a flat surface O which does not, however, extend out as far as the 90° portion P of the surface above referred to, and at the end of this flat surface O there is a surface N connecting the flat surface O with the surface P. This connecting surface N curves slightly inward toward the axis and then following a substantial straight line to the junction with the surface P. Of course, modifications could be made in the surface of this eccentric roller J, but I have found that by having the concave portion M a pocket is formed which facilitates the forming of the cigarette. The advantages of the eccentric roller having the surfaces as stated will be apparent from the following description; R is a flexible web of like cloth fabric or other suitable material which is attached to the surface N of the eccentric roller by screws, tacks or other suitable means. The web R is passed down over the surface N around the surface P in close contact therewith and down into the concave pocket M. Coming upward from the concave pocket the web R passes over the roller D, across to the roll C, around C and is held fixed to the eccentric roller J by screws T. This end of the web R is preferably placed in a plate S which is composed of a piece of folded metal firmly holding the edge of the web R between the folds or having the web R otherwise secured therein. This plate S is provided with grooves U, U through which screws T are passed to engage with the eccentric roller J on the surface O holding the web R fixedly attached thereto. By moving the plate S as shown in Fig. 1 so that the screws T, T engage the limit of the slot U, more webbing R is allowed for the pocket in which the cigarette is formed. If a smaller cigarette is desired, then the plate S is moved in the opposite direction thereby shortening the length of the web in the pocket M and giving a cigarette of less diameter.

The operation of my cigarette rolling machine is as follows:

The eccentric roller J is placed in the position shown in Fig. 1 with the web R pressed down into the concave pocket M where the requisite amount of tobacco W is placed and is distributed across the length of the pocket M on the web R. The handle K is then rotated clockwise so that the portion P of the eccentric roller J carries the web R around until it contacts with the web R passing over the roller D as shown in Fig. 2. At this point a slight back and forward movement tends to compact the tobacco W in a roll as shown in

Fig. 2. Then a piece of cigarette paper X is placed in the groove between the two portions of the web R around the roller D and on the surface P of the eccentric roller J as shown in Fig. 2.

5 Along the upper edge of the cigarette paper may, if desired, be a little strip of adhesive which has been moistened. Continuing the operation of the eccentric roller J by turning the handle K in a clockwise direction the paper X is carried down

10 in and around the tobacco W and by reason of the moisture along the edge Y the adhesive engages with the adjacent convolution of the paper and fixes the paper in position around the tobacco. When the location of the eccentric

15 roller J has reached the position shown in Fig. 4, the cigarette is exposed and then the operator rotates the handle K anti-clockwise and in doing so the cigarette is brought up out of the pocket and carried on the web R as shown in Fig. 5.

20 Then, as will be apparent from this illustration, if the rotation anti-clockwise continues, the cigarette will be carried around and deposited into the tray. In Fig. 3 I have shown a collection of cigarettes Z, a package of tobacco Z1 and a

25 package of cigarette paper Z2.

As will be seen from the drawings and from the foregoing, any surplus of tobacco which may be deposited on the web R or dropped on any portion of the machine so that it does not get

30 into the cigarette passes into the tray A where it accumulates and may be used when desired.

In Fig. 7 I have shown a modification of the roller J in which I provide a pocket N' arranged on the opposite side of the same half of the roller

35 that the pocket M is arranged on into which the finished cigarette rolls and from which it is deposited into the tray.

I claim:

1. In a cigarette rolling machine, a roller,

40 means for rotating said roller, a second roller, a flexible web co-extensive in width with the length of said first mentioned roller and attached at its ends to said first roller and passing about and enclosing said second roller, said rollers being so

45 arranged that a pocket is formed in said web between said rollers to receive the tobacco and a paper cover, whereby as said first roller is rotated the paper is caused to encircle said tobacco to form a cigarette and means for regulating the

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capacity of said pocket, consisting of a plate attached to one end of the web, said plate having transverse slots and means passing through said slots and adapted to fixedly hold the plate to said first mentioned roller.

2. In a cigarette rolling machine, a tray having sides extending upward, openings in said sides forming bearings for a shaft, a shaft, a roller fixedly mounted on said shaft, a handle for rotating said shaft fixedly mounted thereon at a point beyond the bearings, a pocket in said roller extending parallel to the axis thereof and of the same dimensions throughout its length, a web co-extensive in width with the length of said roller, idler rollers around which said web is carried, means for attaching the ends of said web whereby the length of said web may be regulated, all so arranged that said web in conjunction with one of the idler rollers and the pocket in the eccentric roller form a receptacle to receive tobacco, said means for regulating the length of the web consisting of a plate attached to one end of the web, said plate being provided with openings whereby the plate may be attached to the roller at a plurality of points for the purpose of

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3. In a cigarette rolling machine, a shaft, a roller, said roller being provided with two concave portions one of which is of greater depth than the other, a web extending the full width of said concave portions, said web being attached to the roller so that substantially the entire surface of the two concave portions are overlaid by the web, an idler roller around which said web also passes and means for rotating said first mentioned roller so arranged that a pocket is formed in the web in the concave portion of greater depth, said pocket being lined with said portion of the web so as to form a tobacco container and covering for a paper whereby the paper is caused to encircle the tobacco to form a cigarette, all so arranged so that as the device is rotated in the opposite direction the cigarette is removed by the web from the deeper concave portion and is carried on the web to the portion of least concavity where it may be removed or ejected from the machine.

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