The present invention relates to a cigarette making machine.

One of its objects is to provide a simple machine for making cigarettes of standard or king size or any other desirable size.

Another object is the provision of a cigarette making machine that simultaneously makes cigarettes and imprimes them with the initials of a name, such as a monogram.

These and other objects are attained by mechanism shown in the accompanying drawing, in which:

Figure 1 is a plan view of the entire machine;

Fig. 2 is a sectional view of the entire machine drawn on the line 2-2 of Figure 1 showing the machine in readiness to make a cigarette;

Fig. 3 is a view similar to that of Fig. 2 showing a part of the machine after the cigarette has been made but before it is ejected from the rolling mechanism thereof; and

Fig. 4 is a perspective view, partly broken away, of the rolling mechanism of the machine.

The machine is housed in a casing 10 which may consist of an elongated, rectangular box open at the top. Parallel, longitudinally and horizontally disposed slots 11 are formed in the sides 12 of said casing at a longer distance from casing rear end 13 than from casing front end 14.

Sidably mounted in said slots is a transversely disposed rod 15 whose ends project beyond the sides 12 of said casing, said ends having affixed thereto knobs 16. Rotatably mounted on said rod 15 are a centrally disposed elongated roller 17 and two short end rollers 18. Arms 19 are affixed, respectively, to the outer ends of end rollers 18 and affixed to said arms are fingers 20, said fingers being situated in axial alignment with each other, parallel to said rod 15.

Situated immediately below slots 11 is an elevated platform 21 which rises in a curved incline (designated 22) from the floor 23 of casing 10 adjacent front casing end 14. At the line where incline 22 and the platform proper 21 meet, a downwardly disposed gland 24 is formed. At the opposite edge of platform 21 a valley 25 is formed, parallel to said edge and to casing ends 13 and 14. The valley rises to an overhanging ridge 26 which is higher than the platform 21, the ridge then descending to casting floor 23, the descending portion thereof being designated by the numeral 27. The distance between casing slots 11 on the one hand and the platform 21 on the other is such that rollers 17 and 18 readily pass over the platform with but slight clearance, when rod 15 is moved along said slots.

A metal die (or rubber stamp) 28 of the initials of a name, such as a monogram, is set in a recess 29 formed in platform 21 adjacent incline 22.

Two plates 30 are affixed to platform descending portion 27 in such manner that they are situated in parallel planes, parallel to the planes in which casing sides 12 are disposed. Substantially U-shaped slots 31 are cut or otherwise formed, respectively, in said plates, one of the two arms of said slots being shorter than the other, the longer arm being open at the top. The shorter arm, which is closed at the top, is situated adjacent and parallel to the platform descending portion 27, and is designated with the numeral 32. The longer arm which is open at the top, is also situated parallel to said platform descending portion 27 but not adjacent thereto, and is designated by the number 33.

A web or apron 34 whose opposite ends 35 are respectively rolled around rods 36 covers platform 21, one of said rods being held by gland 24, the other of said rods being slidably fixed in U-shaped slots 31, the web itself being slidably held between rollers 17 and 18 on the one hand, and fingers 20 on the other. An opening 37 in said web exposes said die 28.

A concave trough 38 closed at both ends 39 is affixed at said ends to arms 40 which are pivoted by means of screws 41 to blocks 42, said blocks being fastened to the casing sides 12 adjacent plates 30. A concave-convex plunger 43 is situated in said trough 38 being affixed thereto by means of stems 44 which project respectively through holes 45 in said trough and are joined on the other side of said trough by means of handle bar 46. Said trough rests on brackets 47. When swung over with pivoted arms 40, trough 38 falls, upside down, upon web 34, immediately above platform valley 25.

An inking pad 48 is affixed to transverse rod 49 which in turn is affixed to cam shaped arms 50, said arms being pivoted, by means of screws 51 to the casing sides 12 adjacent platform ridge 26. When rod 49 is swung over with said pivoted arms, inking pad 48 comes down, face forward, through web opening 37 upon die 28.

The compartment 52 which is formed between rear casing end 13 and platform descending portion 27 holds tobacco 57. When the machine is not in use a cover 53 carrying a knob 54 covers said compartment, said cover resting on end blocks 55 which are affixed to casing end 13.

To operate the machine, tobacco 57 is taken from compartment 52 and placed in trough 38.
A sheet of cigarette paper 56 gummed at one edge and previously moistened, is placed on web 34 where web 34 falls into, and conforms to the curvature of, valley 25. The inking pad 46 on rod 49 is now swung over on pivoted arms 50 until it makes inking contact with die 28 through web opening 31.

Trough 35 is now swung over with pivoted arms 45 until it falls on cigarette paper 56 on web 34. Handle bar 46 is pushed down and tobacco 57 is forced out of trough 35 and onto cigarette paper 55. The trough is now returned to its position of rest on brackets 47 and the machine is ready to make a cigarette.

Rod 15 is, at this moment, resting at the rear end of slots 11. It is now moved, by means of knobs 16 in a frontward direction. Fingers 20 meet the front wall of valley 25 and are stopped by it. Rod 15 continues in movement toward the front end of slots 11 passing over fingers 20 which are being temporarily held behind by said front wall of valley 25. Since web 34 is held between fingers 20 and rod rollers 17 and 18, a rolling motion is imparted to said web and it assumes the form, substantially, of a rolling tube coiled around fingers 20. This rolling motion rolls the cigarette paper 56 around tobacco 57, thus forming a cigarette. When the cigarette passes over die 28, the monogram is printed upon it. As rod 15 moves in a forward direction, it engages and raises cam shaped arms 50 thus raising inking pad 46 and passing under it. When rod 15 reaches the forward edge of platform 21, the rolling motion of web 34 is completed, and the cigarette is ejected, being deposited upon sloping portion 22.

The machine hereinafter described is a preferred embodiment of the invention herein claimed. It is given by way of illustration and not by way of limitation. Variations may be provided without departing from the broad principles upon which the invention is based.

I claim:
1. A cigarette making machine comprising a casing, an elevated platform in said casing, a platform traversing center roller and two end rollers, a finger affixed to each said end roller, a web firmly affixed to the front edge of said platform and slidably mounted at the rear portion of said platform, said web being engaged by said fingers, a transverse valley formed in said platform to receive a portion of said web and to engage said fingers, a die affixed to said platform, and an opening in said web registering with said die.

2. In a cigarette making machine, a platform, a web covering said platform, platform traversing roller means to impart a rolling motion to said web, a die on said platform and an opening in said web to register with said die.

3. In a cigarette making machine in accordance with claim 1, an inking pad mounted on a rod affixed to a pair of cam shaped pivoted arms, said inking pad being adapted, when swung over with said arms, to come into inking contact with said die through said web opening, said cam shaped arms being adapted to engage said end rollers and to be elevated by them when they traverse said platform.

4. In a cigarette making machine in accordance with claim 1, a tobacco trough affixed to a pair of pivoted arms, an elongated plunger corresponding in curvature to said trough and disposed in said trough, a handle bar affixed to said plunger by means of stem portions projecting through apertures in said trough, said trough being adapted, when swung over with said pivoted arms, to deposit its tobacco upon said web where said web is received by said platform.

5. In a cigarette making machine in accordance with claim 2, roller means comprising an elongated rod, knobs affixed to the ends of said rod, a center roller and two flanking rollers mounted on said rod, a pair of arms affixed to the outer ends of said flanking rollers, and a pair of fingers affixed to said arms, said fingers being axially aligned with and extending toward each other, said fingers being axially parallel to said flanking rollers.

6. A cigarette making machine comprising a casing, an elevated platform in said casing, a platform traversing center roller and two end rollers, a finger affixed to each said end roller, a web firmly affixed to the front edge of said platform and slidably mounted at the rear portion of said platform, said web being engaged by said fingers, a transverse valley formed in said platform to receive a portion of said web and to engage said fingers, a tobacco trough affixed to a pair of pivoted arms, an elongated plunger corresponding in curvature to said trough and disposed in said trough, a handle bar affixed to said plunger by means of stem portions projecting through apertures in said trough, said trough being adapted, when swung over with said pivoted arms, to deposit its tobacco upon said web where said web is received by said platform.

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