The object of the invention is to provide improvements in devices for making cigarettes, and particularly those devices which are of such size and so designed as to be carried in one's pocket for the purpose of making cigarettes freshly as they are needed, from any brand of tobacco that one may prefer.

Another and more specific object is to provide in such a device, the combination of a barrel with means to eject tobacco or in fact any other suitable smoking material therefrom, with a container for the supply of loose material hingely attached to said barrel, and normally closing the opening thru which such material enters the barrel from the reserve supply in the container.

A further object is to provide a holder for reserve "cigarette papers" secured to the outer surface of one wall of the said container, so that the so-called "papers" will at all times be readily accessible for use in forming the tubes for completing the cigarettes, either before or after the core of smoking material is formed.

Still another object is to provide in combination with the core-forming barrel, a bar or rod secured to said barrel but in spaced, preferably parallel relation therewith, it being the purpose to encircle said bar or rod with a fresh blank "paper" the edges of which are then secured together to form of the "paper" a cylindrical tube or casing, which when positioned in alignment with the discharge opening in one end of the barrel is adapted to receive the core of smoking material therein.

And a still further object is to provide a barrel, having a plunger spirally rotatable therein and a discharge orifice in the opposite end thereof, in combination with a cylindrical liner member having an opening extending longitudinally along one side thereof, one lateral edge of said opening being disposed slightly diagonally and sharpened, so as to sever the material to form a cigarette core within the barrel from the remaining material outside of said barrel, when the liner member is oscillated with respect to the barrel, one end of which latter is adapted to receive an end portion of the originally empty tube as the core material is forced thereinto from within said barrel by the rotation of the plunger.

With these and other objects in mind, the present invention comprises further details of construction, which are fully brought out in the following description, when read in conjunction with the accompanying drawings in which Fig. 1 is a side elevation of one embodiment of the invention; Fig. 2 is a vertical transverse section of the same on the line 2—2 of Fig. 1; Fig. 3 is a right end elevation of the device as viewed in Fig. 1, showing the "paper" holder in section; Fig. 4 is a rear elevation of the same; Fig. 5 is a vertical fragmentary section taken on the line 5—5 of Fig. 1; Fig. 6 is a vertical fragmentary section taken on the line 6—6 of Fig. 2; Fig. 7 is a section taken on the line 7—7 of Fig. 6; Fig. 8 is a bottom plan view; and Fig. 9 is a fragmentary plan view of the lower, or cigarette forming, portion of the device with the interior of the feed hopper exposed.

Referring to the drawings, a cylindrical barrel member 1, open at its opposite ends 2 and 3, is provided with a longitudinally extending aperture 4 in its side wall, which aperture however preferably terminates short of the ends of said member. Secured in any suitable manner to the outer side of said member is a substantially semi-cylindrical hopper 6, limited by end walls 7, and provided with a normally lower aperture 8 in alignment with and opening into the interior of said member thru the aperture 4 in the latter.

Within said member and rotatably positioned with respect thereto is a relatively slender gauged cylindrical lining member 9, also provided with a longitudinally extending aperture 10 in one side wall, said last-named aperture being limited laterally in one direction by a sharpened, diagonally extending edge 11, which when the liner is rotated with respect to the surrounding barrel, serves to shear off any surplus tobacco, or the like, which may protrude from the hopper into the interior of said liner, after the latter has been filled to the desired degree, to form the proper core for a cigarette, the bore of said lining member preferably tapering very slightly inwardly, that is to say, its diameter increases towards the discharge end by approximately .015 inch. For rotation, said liner is provided at one end with an enlarged, knurled head 12, while the opposite end 13 extends freely beyond the corresponding end portion of said barrel, and is adapted to receive and support one end portion of an empty cigarette paper tube 14, as shown in Fig. 6.

In order to define the limits of oscillatory movement of the liner and barrel with respect to each other, the head of the former is provided with a radially projecting pin 15, which extends slidably into a segmental slot...
or aperture 16, in a relatively short sleeve 17, which in turn is fixedly secured to said barrel, and is provided upon one side with an integral, radially extending projection 18, having a bore 19, into which is secured the reduced end portion 20 of a bar 21, which for the purpose of making as light in weight as possible may be hollowed, in which case the opposite end 22 is closed by any suitably arranged wall or closure 23.

The said bar 21 rigidly supported at one end, lies in parallel spaced relation with respect to the normal under side of the barrel 1, so that the opposite end 22 is entirely free, while the outer surface of said bar is lined, scored, or knurled in order to assist one in forming the necessary hollow cigarette tube, the operator’s thumbs and first fingers during this operation pressing the “paper”; previously slipped between the barrel and bar with its gummed edges 25 extending freely as shown in Fig. 3, into the irregularities of the knurled or similar surface, and thus preventing said “paper” from slipping until after its gummed edge is duly moistened and stuck in such manner as to complete the tube, after which the latter can be readily slipped from said bar. This tube can be more readily removed from said bar if the latter tapers slightly toward its free end, after which one end of the tube can be slipped over the freely extending end portion 13 of said liner, since the diameter of at least the fixed end of said bar is slightly greater than that of said free end portion.

It should here be noted that the knurled head 12 of the oscillatable liner member is provided with a bore 26, of less diameter than the interior of the liner proper, and is provided with screw threads which receive and engage the threads of a rotatable plunger 27. This plunger is provided upon its free end with a knurled head 28 by which it is rotated, said head comprising an inwardly extending cylindrical flange 29, which overhangs and protects the head 12 of the barrel liner, while the opposite end of said plunger, adapted to operate spirally in and through said liner, is provided with a rotatably mounted, concave head 30, which is adapted to directly engage tobacco within said barrel and liner to propel the former thru the latter without turning upon its axis, regardless of the rotary motion of said plunger upon which said head is mounted.

Hingedly mounted upon one upper edge portion of the hopper 6 is a tobacco magazine comprising end walls 31, connected by side and top walls 32 and 33, which in cross section comprise a normally inverted U, the side opposite to said hinging being provided with a resilient latch member 34, secured by suitable means 35 to the said magazine and provided with an aperture 36, adapted to receive and engage a pin or lug 37 carried by that portion of said hopper opposite to said hinging.

Thus, said magazine, when desired, can be filled with a supply of one’s favorite tobacco, or other smoking material, and together with said hopper form a closure for the aperture 4 of the barrel 1. When it is desired to form a cigarette, the plunger is withdrawn to its extended position by rotating it with respect to said liner; the latter is rotated with respect to the barrel, so as to align their corresponding apertures; the latch of the magazine is released and the latter is tilted backward; the desired quantity of tobacco is taken from the magazine and is pressed into the barrel and liner, and the latter reversedly rotated with respect to the former, to shear off any protruding tobacco, and leave a complete core within said liner, while the sheared particles remain in the hopper and can be returned to said magazine; the plunger is then reversely rotated by manual actuation of its head and the tobacco core is forced longitudinally outwardly into the hollow paper tube carried by the freely extending end of the liner, as before described, the expulsion of the said core from within the lining member being facilitated by the gradual enlargement of the bore of said member towards its free end; and as the core reaches the outermost end of said tube, simply impeding the further progress of said core, by placing one’s finger over the tube’s end, causes the core to swell slightly, due to the continued pressure from within said barrel, and to frictionally engage said tube, with the result that the latter is carried along by said core until entirely free from said liner, which has hitherto supported it.

After reasonable practice, just enough tobacco will be placed within the barrel, at the proper degree of moisture, to enable one to form with remarkable dexterity, completed cigarettes of his favorite tobacco, which in appearance, texture, density and smoking quality, equal and frequently surpass the commercially manufactured cigarettes offered for sale under leading brand names.

While the device thus described is complete in itself for the efficient manufacture of cigarettes, it has been found expedient to provide the device with means for carrying the necessary “papers” from which the tubes are formed. Accordingly a hollow box-like member 40 is secured to that wall of the magazine opposite to the securing latch, said member having an opening 41 in its outer side defined by inwardly directed flanges 42, and one end of said member being closed by a wall 43, while the opposite end 44 is open to permit the insertion of any well-known type of container of “cigarette papers.” From this container within the box-like structure the “papers” can be removed at will for forming into tubes upon the bar 22, as already described, while the usual type of “paper”...
Having thus described my invention, what I claim and desire to protect by Letters Patent of the United States is:

1. In a cigarette making device, the combination of a tubular member having an opening in one side, a lining member also having an opening in one side, and a piston within and having screw threads cooperating with said lining member, said last-named member being adapted to receive tobacco when said openings are in alignment to form a cigarette core, and the tobacco within said lining member being severed from surplus tobacco outside thereof by the cooperation of said cutting edge with the opposed edge of the opening in said first member, as said members are relatively rotated, a piston having screw threads engaging said lining member to eject the tobacco core from within the device upon being rotated, and a head rotatably carried by said piston to engage said core and prevent twisting of said core as said piston is rotated.

3. In a cigarette forming device, a tube having an opening in one side, a relatively rotatable lining member also having an opening in one side, a hopper secured to said tube in alignment with said first opening, tobacco within said lining member being severed from tobacco in said hopper by the relative rotation of said tube and lining member to form a cigarette core, a plunger within and in threaded engagement with said lining member, and a head carried by said plunger and rotatable with respect thereto, to prevent twisting of a tobacco core upon the rotation of said plunger.

In testimony whereof I have affixed my signature.

MAURICE ALLAND.