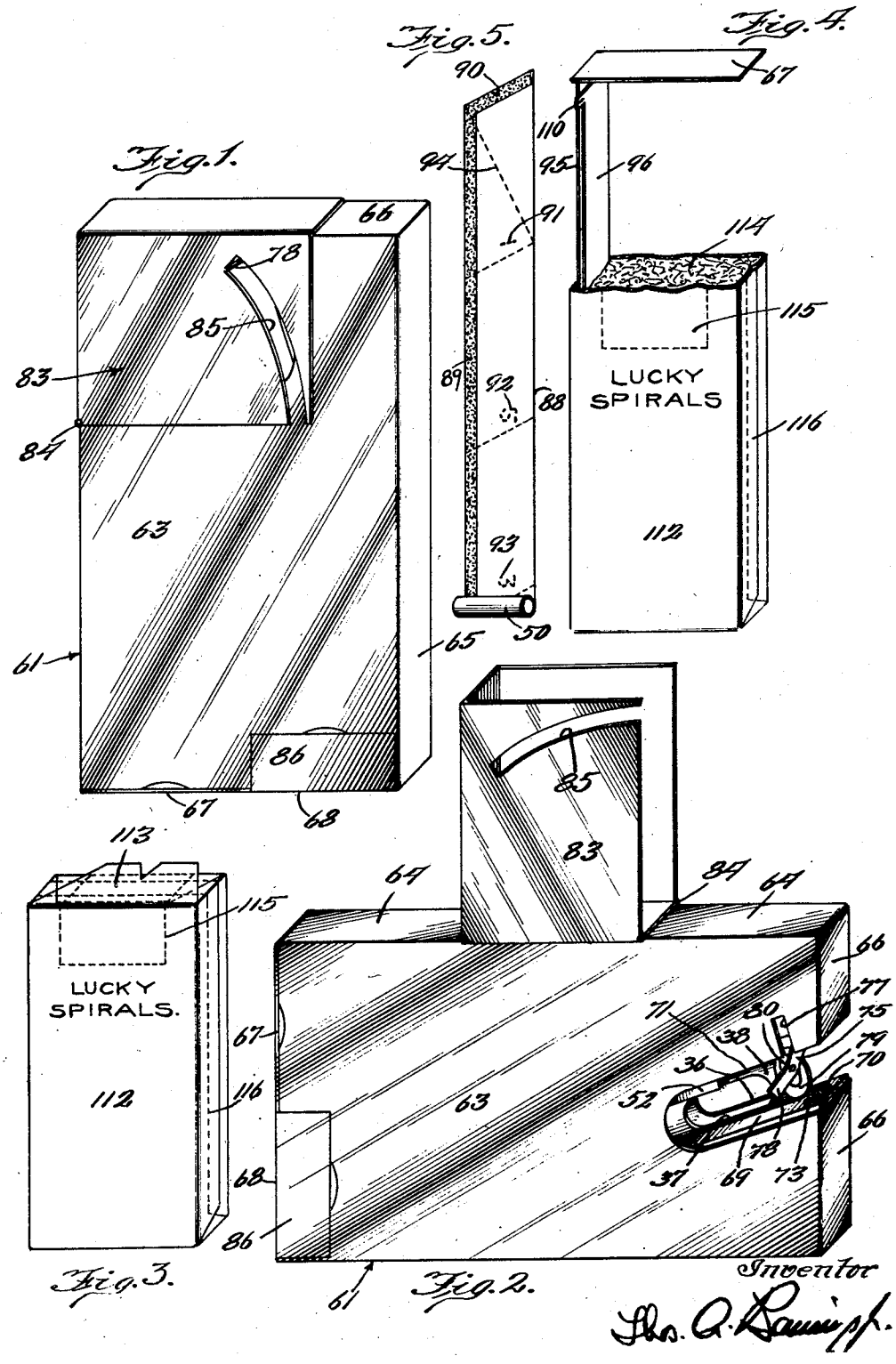
April 9, 1957 T. A. BANNING, JR 2,788,004

CIGARETTE MACHINES AND THE LIKE

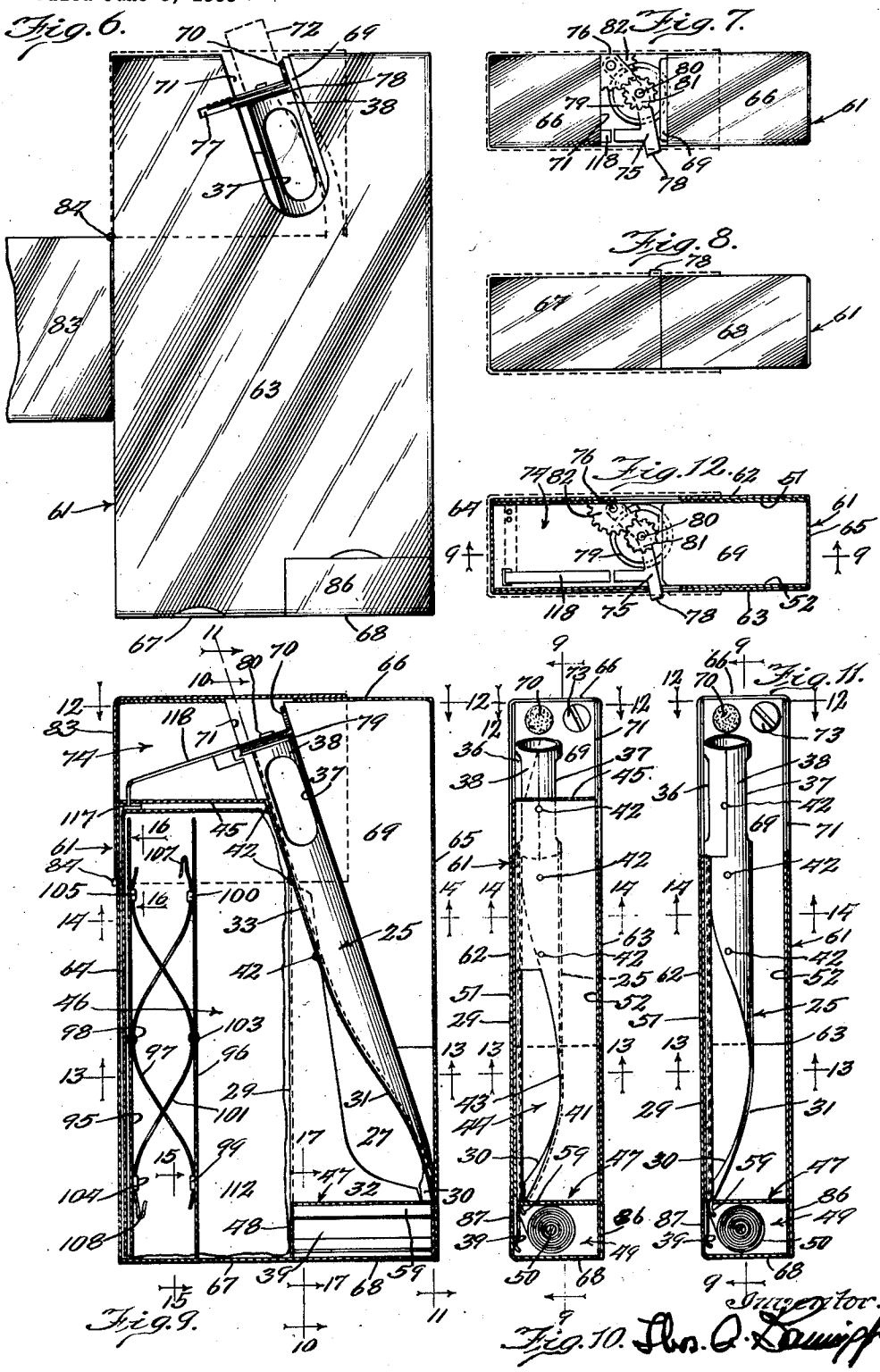
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CIGARETTE MACHINES AND THE LIKE

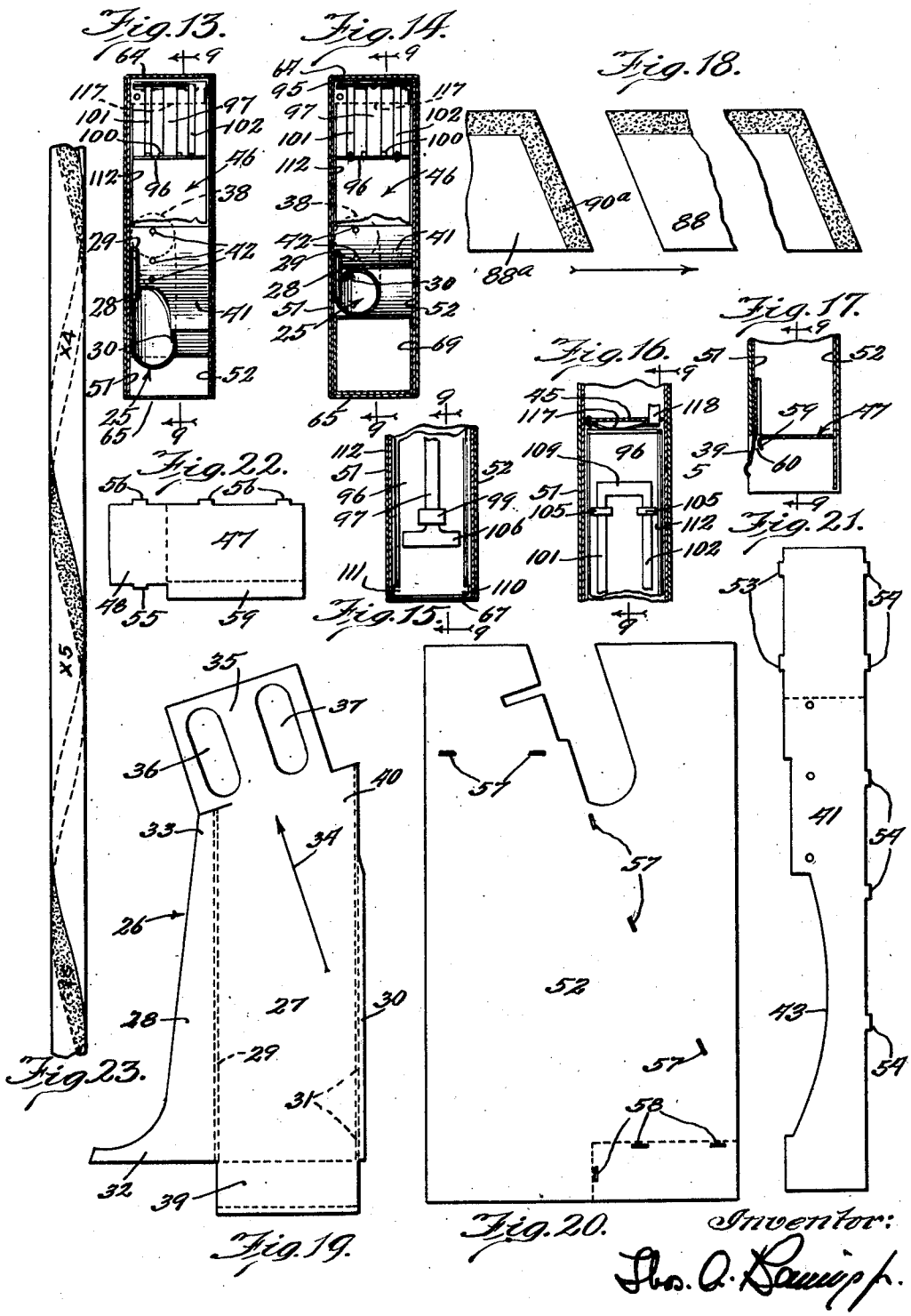
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CIGARETTE MACHINES AND THE LIKE

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2,788,004

CIGARETTE MACHINES AND THE LIKE

Thomas A. Banning, Jr., Chicago, Ill.

Application June 3, 1955, Serial No. 513,119
8 Claims. (Cl. 131—59)

The present invention has to do with improvements in machines for rolling cigarettes and the like. The construction of machine herein disclosed is especially intended for individual use and is of a size and shape which are very well adapted for carrying in the pocket or purse so that the cigarettes can be rolled as needed by the user.

One object of the invention is to provide a machine of very compact form and of convenient arrangement so that it will comply with the desirable feature of portability, etc., and at the same time to provide a machine capable of producing cigarettes one after the other without re-filling or replenishing and up to such number or capacity as may be desirable, for example twenty cigarettes.

Another object of the invention is to provide a machine of such arrangement that the cigarettes produced thereby will be of a high quality and appearance and finish, and will be well filled with tobacco, and properly sealed and cut-off in a neat and clean-cut manner.

Another feature of the invention relates to the provision of a construction of machine which is well adapted for enclosure within a comparatively thin case or housing, since this feature will add materially to the attractiveness of the device from the standpoint of convenience of portability in the pocket or purse. The necessary capacity of the machine may then be produced by properly proportioning the length and width of the case, but this can also be done in such a manner as not to detract from the features of convenience of portability, etc., already referred to.

In connection with the foregoing it will be understood that provision must be made for accommodation of a paper strip of the necessary width for the production of the rolled cigarettes, such width generally being greater than the thickness which is desirable for use in the completed case. It is therefore an object of the invention to provide an arrangement in which the thickness of the machine may be substantially less than the width of the paper strip used in the production of the cigarettes.

Another feature of the invention relates to the provision of an improved form of cut-off device for cutting off the completed cigarettes as they are delivered to the user. In this connection, said cut-off device operates to sever the formed cigarette at a position immediately beyond the delivery end of the horn in which the cigarette is formed; and it is an object and feature of the invention to provide an arrangement in which this cut-off device normally stands across the delivery end of the horn so as to close or seal the same except when the machine is to be used for the production of a cigarette.

Another feature of the invention relates to the provision of a machine which may be used with cartons or cartridges of tobacco of special size and shape so that the proper operation of the machine requires that it shall be supplied with tobacco in such cartons.

In this connection, it is an object to provide an arrangement such that in the absence of such a special carton or package of tobacco, the machine is rendered inoperative and cannot be used with ordinary tobacco in bulk. When the machine is arranged in the above manner, the insertion of such special carton or cartridge renders the machine operative so that it can be used.

More specifically, it is an object to provide an arrangement accomplishing the above result, in which arrangement the cut-off blade normally stands locked across the delivery end of the horn, but which lock is released when a proper package or carton of tobacco is inserted into the machine, thus rendering the machine operative.

Another feature of the invention relates to the provision of an arrangement in which the paper strip is continuously rolled around the tobacco supplied into the strip as the cigarette rolling operation proceeds; and in this connection it is an object to provide an arrangement in which the paper rolling operation is performed from one side or edge of the paper strip as distinguished from both sides or edges thereof, the result being the production of a spirally wound cigarette. In this connection, it is an object to so manipulate the paper strip that the act of enclosing the tobacco therein is performed without the necessity of deflecting or distorting the paper of the strip in any unnatural manner, and without any tendency to crimp or flex the paper in an undesirable manner. Such an arrangement is to be clearly distinguished from one in which the paper strip is rolled or folded from both edges or corners, during the tobacco enclosing operation as such arrangement tends to require an unnatural manipulation especially when performed within a short distance such as is available within the confines of a relatively small or pocket size machine.

The rolling of the cigarettes in spiral fashion results in the production of a spiral seam or overlap of the edge portions of the paper strip after the tobacco has been enclosed within the strip. In this connection it is an object to provide an arrangement in which the advancing and spirally forming cigarette is also rotating at a corresponding rate of rotation so that the position of the spiral overlap remains unchanged at the point where the advancing formed cigarette is being delivered from the horn. For this reason, it is possible to provide means for sealing the same by a properly located sealing wick or moistener which operates on the overlapping portion of the cigarette at the proper position.

In connection with the foregoing, the rate of rotation of the advancing and forming cigarette depends among other things upon the angle of the spiral for which the machine is designed. It is an object of the invention to so arrange this angle that the position of the overlap will be conveniently located as the formed cigarette emerges from the horn and at the position of moistening, so that the moistener can be located for direct application of the moisture to the seam; and at the same time to so arrange the parts that the formed cigarette can be readily grasped and conveniently manipulated during the delivery thereof from the horn.

Another feature of the invention relates to the provision of an arrangement such that the water tank can be readily and conveniently replenished from time to time, and also an arrangement such that the tobacco and the paper strip may be conveniently replenished or resupplied as needed.

In connection with the foregoing, it is an object to provide a paper strip arrangement such that before the supply of paper is completely exhausted, a new paper strip supply may be readily attached thereto and drawn into the machine so as to maintain the continuity of the operation and without the necessity of completely rethreading the paper through the machine.

Another feature of the invention relates to the provision of a paper strip or web having its end portions formed on a bevel corresponding to the angle at which the paper is spiraled during the cigarette forming operation, so that the first cigarette to come through the machine will have the end of its paper enclosure squared

or at right angles to the axis of the cigarette, and so that the paper strips successively drawn through the machine thereafter will be properly connected together.

Another feature of the invention relates to the provision of a machine which can be made almost entirely of sheet metal parts either punched or stamped or otherwise formed according to well understood and widely practiced manufacturing methods and operations. Also, to produce a machine which can be very cheaply manufactured in large quantity production and one which will not easily get out of order.

Other objects and uses of the invention will appear from a detailed description of the same, which consists in the features of construction and combinations of parts hereinafter described and claimed.

In the drawings:

Figure 1 shows a perspective view of a completed machine in its closed condition and standing upright as it might be carried in the pocket;

Figure 2 shows a view corresponding to Figure 1, except that the machine has been turned into the horizontal position and has been opened so as to give access to the delivery horn;

Figure 3 shows a perspective view of a special package or carton of tobacco intended for use in the machine of Figures 1 and 2;

Figure 4 shows a view similar to Figure 3, with the exception that the end of the package has been opened and the spring presser plate has been slipped down along one edge of the package;

Figure 5 shows a face view of a short section of the paper strip or web unrolled from a roll thereof;

Figure 6 shows a side face view corresponding to Figure 2;

Figure 7 shows a front end view corresponding to Figure 6;

Figure 8 shows a back end view corresponding to Figure 6;

Figure 9 shows a vertical longitudinal section through the machine being taken on the lines 9—9 of Figures 10, 11, 12, 13, 14, 15, 16, and 17, looking in the directions of the arrows;

Figure 10 shows a horizontal section on the line 10—10 of Figure 9, looking in the direction of the arrows;

Figure 11 shows a horizontal section on the line 11—11 of Figure 9, looking in the direction of the arrows;

Figure 12 shows a vertical transverse section on the lines 12—12 of Figures 9, 10, and 11, looking in the directions of the arrows;

Figure 13 shows a transverse section on the lines 13—13 of Figures 9, 10, and 11, looking in the directions of the arrows;

Figure 14 shows a transverse section on the lines 14—14 of Figures 9, 10, and 11, looking in the directions of the arrows;

Figure 15 shows a fragmentary horizontal section on the line 15—15 of Figure 9, looking in the direction of the arrows;

Figure 16 shows a fragmentary horizontal section on the line 16—16 of Figure 9, looking in the direction of the arrows;

Figure 17 shows a fragmentary horizontal section on the line 17—17 of Figure 9, looking in the direction of the arrows, the rear clip being removed for the introduction of the paper strip;

Figure 18 shows face views of portions of two paper strips in end sequence to each other, the central portion of one of the strips being broken away so as to shorten the figure;

Figure 19 shows a face development view of the metal blank used for the horn of the cigarette former;

Figure 20 shows a face development view of the blank for one of the side plates;

Figure 21 shows a face development view of the blank for the central partition;

Figure 22 shows a face development view of the blank for the paper compartment partition; and

Figure 23 shows a face view of a length of completed spirally wrapped cigarettes embodying the features of the present invention.

In the machine illustrated herein, there is provided a former or twister 25 within which the paper is wrapped around the tobacco in order to form the cylindrical cigarette. This former is conveniently made of sheet metal comprising a blank 26 of the general form shown in Figure 19. The blank includes a body portion 27 having one edge portion 28 folded down along the folded lines 29 and its opposite edge portion 30 folded down towards the same face of the blank along the folded lines 31. The folded lines 29 and 31 are parallel to each other and the distance between them is equal to or slightly greater than the width of the paper strip or web which is used in the cigarette forming operation.

The direction of travel of the paper along the former is shown by the arrow in Figure 19. Said direction lies at an angle to the principal length or dimension of the blank.

The edge portion 28 is preferably tapered as shown in Figure 19 so that its width is greater at the entering end 32 than at the leaving end 33.

The two edge portions 28 and 30 are folded down close to the body surface of the blank 27, but in this operation there is left a slight clearance between these folded over portions and the body portion sufficient to receive the thickness of the paper strip or web and hold it smooth during its travel but without binding.

After these edge portions have been folded over in the above manner, the entire blank is rolled about an axis paralled to the direction of paper web travel—that is, parallel to the arrow 34 in Figure 19—and diameter of the cylinder on which the blank is thus rolled is equal to the diameter of the cigarette to be produced.

The blank 27 is also provided with an extension or lug 35 at its delivery end which is of such width as to encircle the forming and delivering cigarette and establish in effect a continuation of the former or twister within which continuation the cigarette is guided during its travel immediately before its delivery. This extension 35 is provided with the elongated openings 36 and 37 which are so placed as to be opposite to each other in the horn 38 (see Figures 2, 6, 9, 10, and 11).

The appearance of the completed former or twister is well shown in Figures 9 and 11, in particular, and the effect of folding the edge portions 28 and 30 over towards each other is well shown in Figures 13 and 14 in particular. The paper strip or web enters at the end closest to the lug 32 and at the beginning of such entry it will be seen that there is no twist or curve in the former or twister but that the paper lays flat against the surface of a lug 39 projecting endwise from the blank 27. At the position of such entrance, the paper is supported and guided throughout its entire width as clearly evident from Figure 9 in which it will be seen that the lug 32 comes into close proximity to the lug 30, both of said lugs lying close to the face of the blank 27. Then as the paper strip advances, its upper edge lies close to the folded edge 29 and travels parallel thereto, and the other edge of the paper strip or web lies close to the folded edge 31 and travels parallel thereto; but since the former is curled over from its corner 40 in the manner already explained, it follows that the edge 31 is carried up and curled around as the paper strip or web advances until finally when the horn 35 is reached, said edge of the strip has been carried up and over and lapped somewhat against the opposite edge of the strip and the formed and lapped tubular paper enclosure is then delivered out through the horn 38 as a spirally twisted tubular paper enclosure.

As the paper enclosure continues to advance in the direction of the arrow 34, it continues to rotate at a spiral

angularity dependent upon the angle of the arrow **34** with respect to the edge **29**. Examination and comparison of Figures 9, 10, and 11, shows that at the instant the lapping operation is completed, the seam lies at the side of the twister or former and against the end portion **33** of the edge lug **29**. As the formed cigarette continues to travel through the horn **35** and emerges therefrom, a rotating operation continues so that at a position at or slightly beyond the delivery end of the horn **38**, the lap or seam has twisted around to the bottom of the device at a point where it may be conveniently sealed by the sealer presently to be described.

Preferably a sheet or blank **41** is secured against the top face of the former or twister **25**, such attachment being conveniently effected by means of two or three small rivets **42** (see Figures 9, 10, 11, 13, 14, and 21). This blank **41** is notched or recessed at one side as shown at **43** so that there is established an elongated opening **44** facing down into the former or twister **25** at a point where the tobacco will feed down and onto the advancing paper strip or web so as to be carried along and rolled into the advancing paper in order to form the cigarette.

This blank **41** preferably has its front end turned up into a vertical position to establish a partition **45** constituting the front end of the tobacco hopper or chamber **46**.

There is also an L-shaped partition **47** reaching up from the floor of the device and extending across the lower corner thereof as shown at **48** in Figure 9 in particular. This partition establishes a small chamber **49** within which is placed the roll of paper **50** from which the web or strip is drawn and enters the former or twister.

Preferably, the above partitions are contained between a pair of side plates **51** and **52** of the general form shown in the blank illustrated in Figure 20. As a matter of convenience in construction, the blanks **41** and **47** are provided with side lugs **53**, **54**, **55**, and **56**, which engage small slotted openings **57** and **58** formed in the side plates, the lugs being clinched over on the outsides of the plates so as to establish a rigid self-contained unit device.

The lug **39** at the entering end of the former or twister extends over into the paper compartment **49** and is normally pressed over into the position shown in Figures 10 and 11 under a slight spring pressure; and the adjacent edge portion of the blank **47** is preferably provided with a lug or lip **59** (see Figures 9, 10, 11, 17, and 22) which assists in guiding the paper strip moving from the compartment **49** into the former or twister. It will be understood that the blank **27** is preferably made of relatively light springy sheet metal and the pressure between the lugs **39** and **59** is relatively light and springy so that only sufficient pressure is placed upon the paper web to insure that it shall enter the former in a smooth and even manner but without material resistance to its travel.

The lug **39** normally tends to deflect away from the lug **59** as shown in Figure 17 when it is released so as to establish a slight opening **60** through which the paper web or strip can be initially easily introduced into the former or twister; and after such introduction, the lug **39** may be deflected over towards the lug **59** so as to establish the desired frictional contact with the paper web.

The operating unit so far described is located within a convenient case or housing designated in its entirety by the numeral **61**. It includes the side faces **62** and **63**, the top **64**, bottom **65**, front end **66**, and rear end comprising the removable plate **67** for the tobacco hopper and the removable plate **68** for the paper chamber **49**. It will be noted that when the unit is set into the case or housing, there is left a substantial space under the front portion of the former or twister, and a moistening or water tank **69** of triangular shape is conveniently located therein. This tank is of the full width of the case and is of maximum size at its front or delivery end and tapers down to a shallow form at its lower or near end.

A wick **70** of suitable material such as felt or the like reaches down into the body of the tank and extends up and terminates at a position immediately in advance of the delivery end of the horn **38**. Consequently, the overlapped portion of the advancing and forming tubular cigarette will travel in contact with the wick and be moistened and sealed thereby.

The side plates **51** and **52** and the side walls **62** and **63** of the case are provided with slotted openings **71** parallel to the horn **38** and giving access thereto in such a manner that the side openings **36** and **37** are conveniently available so that the user can reach in with his thumb and forefinger and take a hold of the formed portion of the tubular cigarette lying within the horn **38** and start it out beyond the horn as shown by the dotted lines **72** in Figure 6; and after the delivery of the cigarette has been thus started, the projecting portion thereof can be readily grasped and pulled out to whatever length the user desires. As the forming cigarette is thus pulled out, it will be twisting or rotating, but the total amount of such twist in the length of an ordinary cigarette is not so great but that the operation is very conveniently performed, the user twisting his fingers slightly as the cigarette is pulled out. At the same time, the overlapping portion is travelling in contact with the wick **70** and the sealing operation thus proceeds continuously.

Preferably the water tank **69** is provided with a removable screw **73** which can be conveniently removed from time to time in order to fill the tank by the use of an eye-dropper or the like.

There is a small compartment **74** located in the upper forward portion of the device in advance of the partition **45** and above the horn **38**. A small lever arm **75** is located within this chamber **74**, one end of said lever arm being pivoted to the plate **51** at the point **76**, and the other end of the lever arm extending out through a slotted opening **77** and providing a button or finger-piece **78**, by means of which the lever can be conveniently rocked up and down.

A circular cut-off blade **79** is pivoted to the lever arm **75** on the pin **80**, and a small pinion **81** is connected to the circular cut-off blade **79** and meshes with a curved stationary rack **82** (see Figures 7 and 12 in particular). With this arrangement, as the lever arm **75** is moved up and down, the blade **79** is rotated and such rotation is coincident with the movement of the blades across the path of the formed cigarette and immediately in advance of the horn **38**. It will also be noted that when the lever **75** is moved down into the position of Figures 2, 7, and 12, the blade covers over and obstructs the end of the horn **38** so that the formed cigarette cannot be delivered therefrom, such delivery only being permitted when the blade is raised by raising the lever arm **75**. Furthermore, the proportions of the pinion **81** and curved rack **82** may be such that the rack does not interfere with the proper outward travel of the formed cigarette from the horn **38**.

If desired, a cover or the like **83** may be provided for normally enclosing the slotted opening **71** and the horn **38** etc. In the arrangement illustrated, this cover **83** is hinged to the top **64** along the line **84** so that when the cover is turned down into the closed position of Figure 1, it performs the desired function. Incidentally, this cover is provided with a curved slotted opening **85** to accommodate the projecting finger-piece or button **78** so as to properly accommodate the same; and when the cover is closed as in Figure 1, said finger piece **78** cannot be inadvertently moved around either up or down but is engaged by the slot **85** as to prevent such movement.

The back section **68** is U-shaped as best shown in Figures 1, 2, 6, 8, 10, and 11, including the side fingers **86** and **87**. When the clip **68** is set into place, it embraces the rear end portions of the side plate **52** and the

projecting lug 39 of the blank 27 so as to draw said lug 39 over into the position of Figures 10 and 11 to properly grasp the paper web. Upon removing the clip 68, the lug 39 is released allowing it to spring out into the position of Figure 17, and at the same time the chamber 49 is exposed so that the paper roll 50 can be inserted or removed.

The paper strip is of the form shown at 88 in Figure 5. It is provided with a gummed edge portion 89 along one edge, and is also preferably provided with a gummed edge portion 90 at its front end. Preferably, also, the strip or web is marked as shown at 91, 92, 93, etc. to designate the proper points of cut-off for cigarettes of standard length (two and three-fourths inches). The beginning end of the strip 88 is bevelled as shown at figure 5 on an angle corresponding to the angle of the arrow 34 with respect to the folded edge 29; and the dotted line 94 in Figure 5 likewise parallel to the direction of the arrow 34—that is, parallel to the direction of travel.

When the device is originally threaded up with the paper web, this can easily be done by starting the web into the former or twister 25, the clip 68 having been removed, and the paper strip can be worked through until it projects out from the horn 38. When it is desired to subsequently renew this paper strip, this should be done by attaching the front end 90^a of a new strip 88^a (see Figure 18) so that the new strip will be drawn in through the former or twister without difficulty (and without the need of emptying all of the tobacco out of the machine).

The removable plate 67 is provided with a plate 95 reaching inwardly therefrom at right angles and close to the upper edge of the plate 67. This plate 95 reaches over close to the front end partition 45. There is also a spring presser plate 96 of substantially the same dimensions as the plate 95. A central semi-elliptic spring 97 has its central portion riveted to the plate 95 at 98 and its ends are received in clips 99 and 100 on the plate 96. There is also a pair of semi-elliptic springs 101 and 102 having their central portions riveted to the plate 96 as shown at 103 and the ends of these springs are received in clips 104 and 105 on the plate 95.

One end of the spring 97 is provided with a lateral enlargement 106 (see Figure 15), and the other end is provided with a hook 107 (see Figure 9); and the ends of the springs 101 and 102 close to the lateral enlargement 106 are provided with hooks 108 (see Figure 9) and the other ends of the springs 101 and 102 are connected together by a cross connection 109 (see Figure 16).

With the above arrangement, when the presser plate 96 is moved close up to the plate 95, the presser plate 96 may be shifted endwise in one direction so as to cause the hooks 107 and 108 to engage the lateral extensions 106 and 109 of the other springs, thus locking the spring presser plate close to the plate 95 and with the springs under compression. Thereafter, by a slight movement of the plates in the opposite direction with respect to each other, the hooks and lateral enlargements will be disengaged and the springs will be again allowed to perform their function and the spring presser plate will be pressed out so as to exert a pressure on the tobacco in the hopper 46 for the purpose of feeding it down into the former or twister.

The plate 96 is provided with the lateral lugs or hooks 110 and 111 (see Figure 15) which will engage with the proper stationary parts in order to cause the shifting of the plate 96 with respect to the plate 95 at the proper time.

It is intended that the present device shall be used with a package or cartridge of tobacco of the proper size and shape to fit into the hopper 46, and it is intended that the device shall be locked or inoperative except when used with such special package or carton of tobacco. Such a package of tobacco is shown at 112 in Figures 3 and 4. It is provided with a tab 113 at one end by means of which it can be conveniently opened at that end as shown in Figure 4 so as to expose the tobacco 114, and there is also illustrated a revenue stamp 115 which will be mutilated or destroyed during the opening operation in the familiar manner.

Upon opening the package as shown in Figure 4, and having locked the plates 95 and 96 close together in the manner already explained, the two plates 95 and 96 may be slipped down at one edge of the package or tobacco 112 as shown in Figure 4 until the lugs 110 and 111 do not quite strike the torn off edge of the paper package. Then the package, together with the spring clips thus set into place, may be turned at right angles to the position of Figure 4 and the edge portion 116 may be torn off, and then the assembled unit can be slipped into the hopper 46 of the inverted machine; and as this operation is completed, the end of the package 112 will strike against the partition 45 (or against some other object) so that the further movement of the package 112 will be arrested; and then as the plate 67 is forced home, the lugs 110 and 111 will be engaged against the edges of the paper package so that the plate 96 will be held against movement while the plate 95 continues a slight movement and thus the springs will be unhooked from each other and permitted to exert spring pressure on the tobacco, forcing it towards the opening 44 which leads into the former or twister. Thereafter, the machine may be used for the rolling of cigarettes in the manner intended.

From the above it will be seen that the proper disengagement of the spring presser plate in order to insure proper feed of the tobacco under spring pressure is dependent upon the use of a proper package of tobacco since the spring presser plate 96 is only released in its movement by engagement of the lugs 110 and 111 with the paper package for the tobacco.

I have also provided in the present machine means for locking the cut-off lever 75 in the closed position of Figure 12, except when a proper package of tobacco is inserted into the machine. This means takes the form of a spring finger or clip 117 which has one end riveted or otherwise secured to the partition 45 inside of the tobacco hopper or chamber 46 (see Figure 16). The other end of this spring finger 117 carries a finger 118 which reaches through an opening of the partition 45 and is then turned downwardly as best shown in Figures 7, 9, and 12, and normally stands in the path of travel of the lever 75. Consequently, in the absence of a proper package of tobacco within the hopper 46, the finger 118 stands in such a position that the lever 75 cannot be raised so as to raise the cut-off plate 79 away from the horn 38 of the former or twister, and under such conditions the device is inoperative. Furthermore, the introduction of bulk tobacco into the hopper 46 under these conditions will not exert such a pressure on the spring finger 117 as is necessary to cause an unlocking or release action.

Upon introducing a properly shaped and size package of tobacco, the end of the same will press against the spring finger 117, thus moving the finger 118 endwise into the position of Figure 9, and away from the lever 75 or a projection thereof so that said lever can then be raised in order to operate the cut-off device and also to expose the delivery end of the horn 38.

It will of course be understood that if desired, the spring finger 117 and the locking finger 118 might be eliminated, and other means be provided for feeding the tobacco into the opening 44, thus making it possible to use the device for the rolling of cigarettes from bulk tobacco instead of tobacco from a specially shaped and sized package.

While I have herein shown and described only certain embodiments of the features of my present invention, still I do not intend to limit myself thereto except as I may do so in the claims.

Another embodiment of the "cigarette roller" or "former" is also disclosed in my co-pending application for patent on Improvements in Cigarette Machines and the Like, Serial No. 516,633, filed June 20, 1955, which application carries claims on cigarette rollers or formers and related elements in other language than the present case.

I claim:

1. A cigarette roller including in combination a cigarette former comprising a sheet metal blank of generally rectangular elongated shape having one end horn producing portion extended upwardly and forwardly at the horn angle to the central axis of the blank, said angle being substantially the angle of spiral of a spirally wrapped cigarette to be produced by use of said cigarette former, a portion of said blank being of tubular form comprising the end horn producing portion and the proximate lower forward corner portion of the blank, said tubular portion comprising a horn of diameter substantially the same as the diameter of a cigarette to be produced by said cigarette former, and the corner portion of the blank which is in connection with said tubular horn being curled about the backwardly extended axis of the horn on a radius of curvature substantially the same as the radius of the tubular horn, said so-curled corner portion of the blank merging with the non-curled and flat portion of the blank on a line lying parallel to the axis of the horn and intersecting the lower edge of the blank at a location in advance of a vertical flat cigarette paper roll supporting location, said paper roll supporting section being substantially rectangular and having its central axis at right angles to the central axis of the blank, and being of dimension in the direction of the central axis of the blank to accommodate the diameter of a roll of cigarette paper for use in the device, and being of vertical dimension to accommodate the length of the paper roll and width of the paper strip, a substantially rectangular housing enclosure having parallel side walls separated from each other a distance to accommodate the diameter of the paper roll, and the diameter of the horn and the curled portion of the blank, said housing including a top and a bottom and a front wall, the cigarette former being seated within the lower portion of the housing and in proximity to the housing bottom with the flat portion of the cigarette former in substantially flat engagement with one of the side walls of the housing and with the horn extending toward the front of the housing, a vertical partition extending transversely within the housing between its side walls and at a location above the horn of the cigarette former, and providing a vertical chamber in the housing above the horn, the front lower portion of the housing side walls and bottom being cut away to provide a transversely extending recess in the lower front portion of the housing enclosure, the horn extending into said recess and being therein exposed and accessible to the hand of the user at a location beneath the vertical front chamber aforesaid, a floor extending across the width of the housing enclosure above the curled portion of the cigarette former commencing substantially at the location of the merging of the edge of the curled portion with the flat portion, said floor being provided with an opening adjacent to the flat portion of the cigarette former and establishing communication from a tobacco containing space within the housing enclosure above said floor to the cigarette former for feed of tobacco from said space to a paper strip lying and travelling within the former, and a paper roll compartment partition member extending across the width of the enclosure at the location of the vertical flat cigarette paper roll supporting location and including a vertical front wall and a top, the vertical front wall of said compartment partition having its edge which is proximate to the surface of the cigarette former unconnected to said flat portion of the cigarette former to permit forward advance of paper strip from the paper roll compartment into the cigarette former.

2. Means as defined in claim 1, wherein the flat portion of the blank is of greater vertical dimension along that portion of its top edge which lies forwardly of the paper roll supporting section than the vertical dimension of said paper roll supporting section, and wherein said greater vertical dimension top edge portion is folded down and parallel to and slightly separated from the cigarette paper guiding surface of the blank to establish a thin paper receiving and guiding passageway having its rear end located adjacent to the front of the paper roll supporting section to receive and guide the top edge portion of the paper strip advancing into the cigarette former, and wherein the lower edge portion of the blank in advance of said paper roll supporting section is folded upwards and parallel to and slightly separated from the cigarette paper guiding surface of the blank to establish a thin paper receiving and guiding passageway extending along the curled edge of the cigarette former from the location of the paper roll supporting section to a location close to the proximate end of the horn.

3. Means as defined in claim 1, wherein the cigarette former is seated within the housing with the axis of the horn and the curled corner portion of the cigarette former extending upwardly and forwardly at an angle from the horizontal substantially the same as the angle of spiral of the spirally wrapped cigarette produced by such cigarette former.

4. Means as defined in claim 1, wherein the horn is located above the bottom of the housing, and wherein the curled edge portion of the cigarette former delivers the proximate edge of the paper strip into overlapping engagement with the opposite edge portion of the paper strip, and wherein the wrapped and formed cigarette advancing through the horn has the edge portions of its paper wrapping of spiral formation along the length of the cigarette, and wherein the spiralled edge portions of such wrapping emerge from the horn with the overlapped edge portions facing downwardly, together with means located between the housing floor and the horn to moisten the overlapped edge portions aforesaid at a location beyond and in proximity to the delivery end of the horn.

5. Means as defined in claim 4, wherein said moistening means includes a container for water located between the housing floor and the lower portion of the cigarette former, and a wick extending from the interior of such container to a point of paper strip edge moistening outside of and in proximity to the delivery end of the horn.

6. Means as defined in claim 4, together with means located within the vertical chamber which is above the horn to cut-off the delivered cigarette at a point beyond and in close proximity to the delivery end of the horn, said cutting means including a knife having a cutting edge, movable means to support the knife, and means to movably support such movable means within the vertical chamber including means to move the knife through a path of movement across the path of the cigarette length delivered from the horn.

7. Means as defined in claim 6, wherein the movable means to support the knife includes a pivotal connection between the knife and such supporting means, and wherein the means which movably supports the movable knife supporting means includes a pivotal connection between the supporting means and the housing, whereby the pivotal knife support may be rocked about a pivotal connection to the housing during movement of the knife across the delivery path of the cigairette.

8. Means as defined in claim 1, together with resilient means within the tobacco containing space acting in direction to urge movement of tobacco contained within said space towards the opening in the floor and through such opening into the cigarette former unit.

No references cited.