United States Patent

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[54] **MACHINE FOR PACKING OF CIGARETTES IN SOFT PACKETS**
20 Claims, 14 Drawing Figs.

[52] **U.S. Cl.** **53/53,** 53/151, 53/192
[51] **Int. Cl.** **B65b 57/00,** B65b 19/04
[50] **Field of Search** 53/53, 54, 149, 151, 191, 192

[56] **References Cited**

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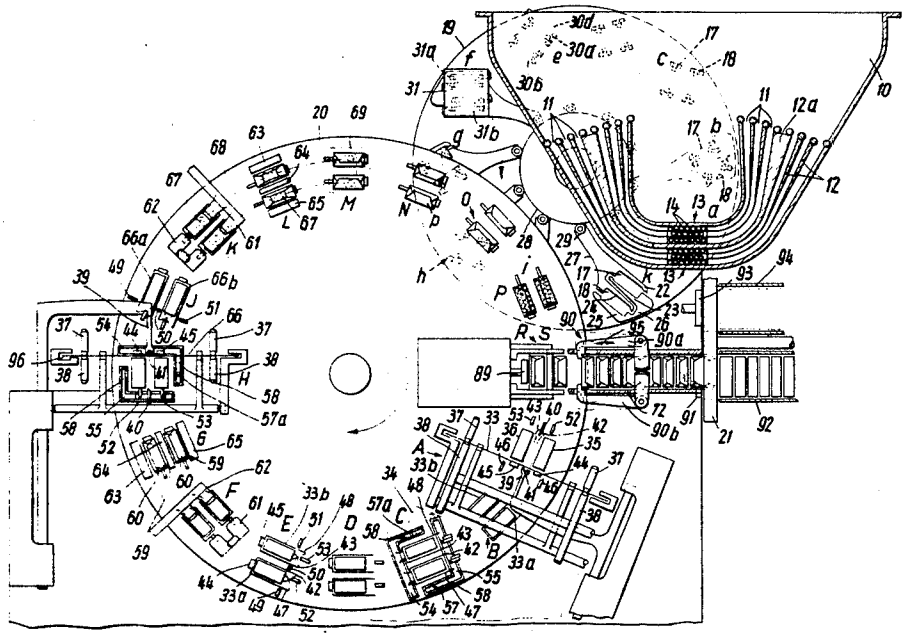
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ABSTRACT: A machine for packing of cigarettes in soft packets comprises a supply container for the cigarettes, means for feeding groups of cigarettes within the supply container, a first turntable being positioned adjacent the supply container, a first turntable being positioned adjacent the supply container and having stations thereon and a second turntable being positioned adjacent the first turntable and also having stations thereon. Several of the stations on the first turntable have means for the preparation of at least two blocks of cigarettes at an individual station. The second turntable cooperates with the first turntable to receive the two block arrangements of cigarettes. Further several of the second turntable stations perform the operations of making, filling and closing two packet arrangements of the two block arrangements of cigarettes at an individual station.



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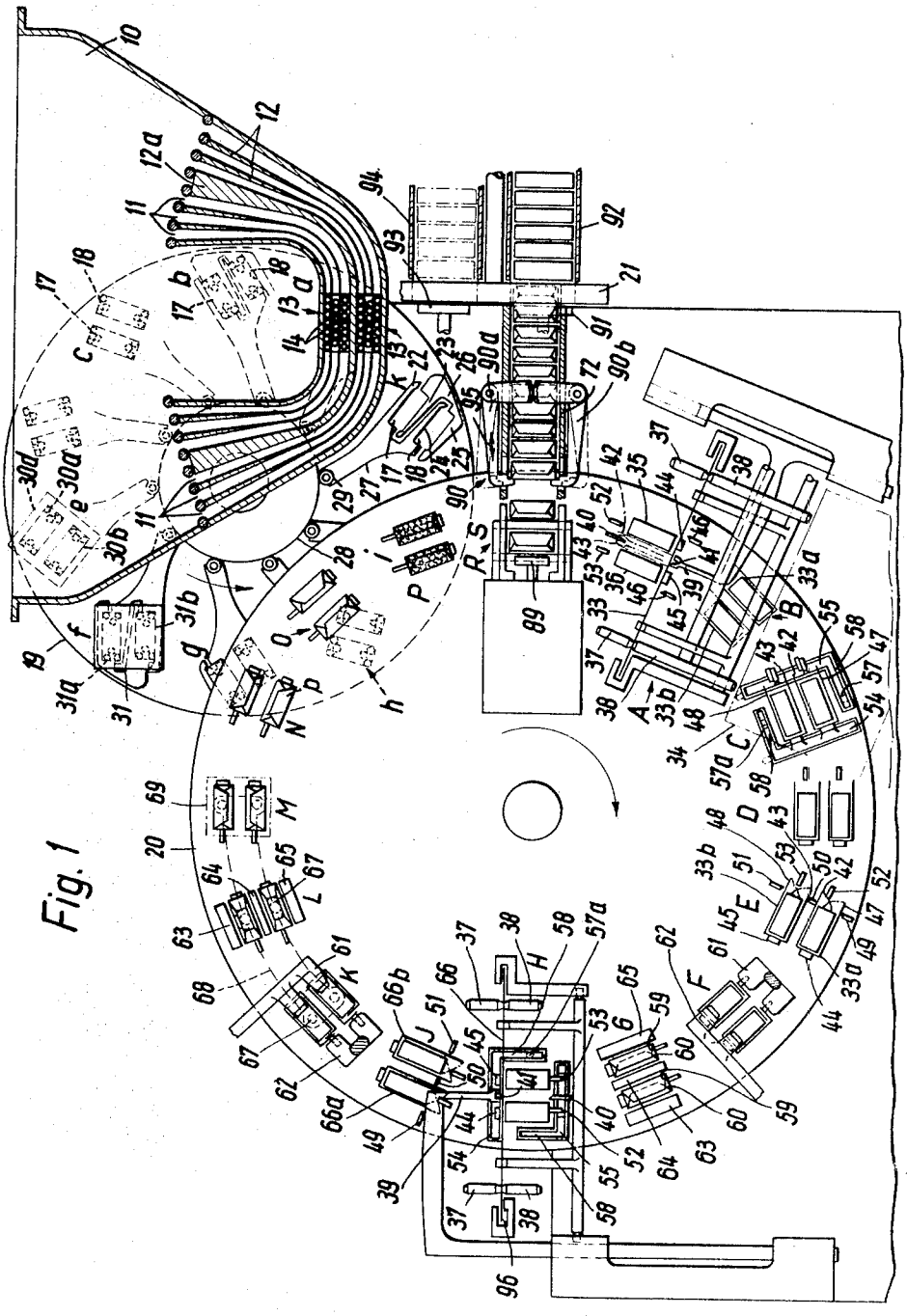
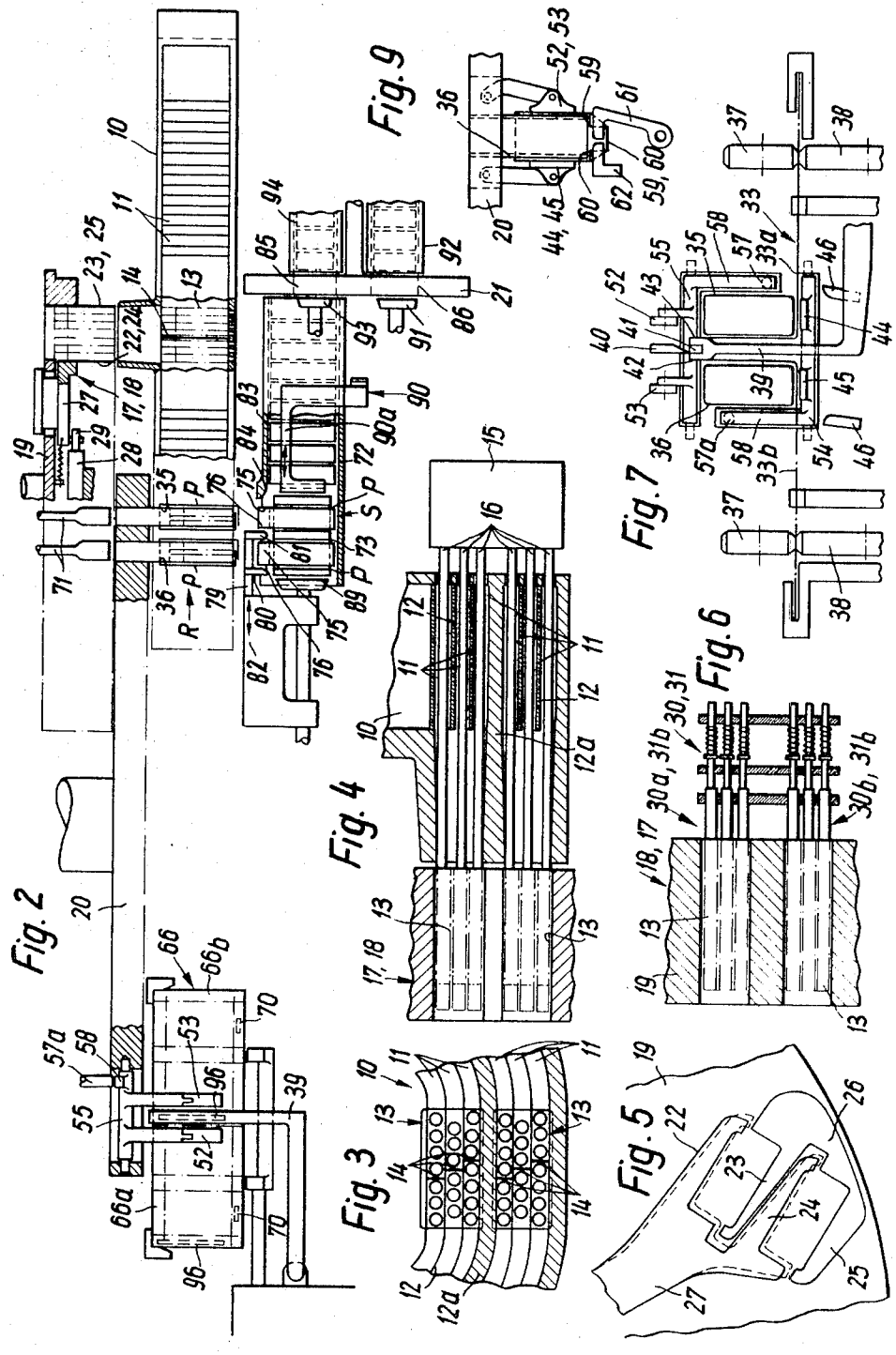


Fig. 1

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Fig. 8

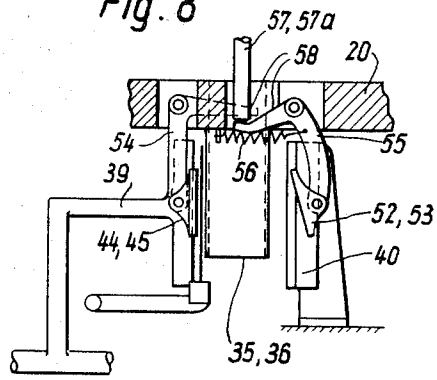


Fig. 10

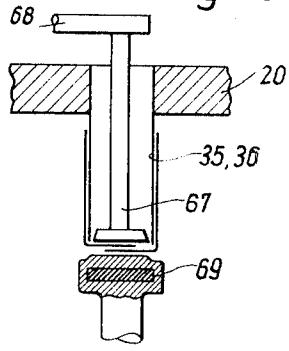


Fig. 11

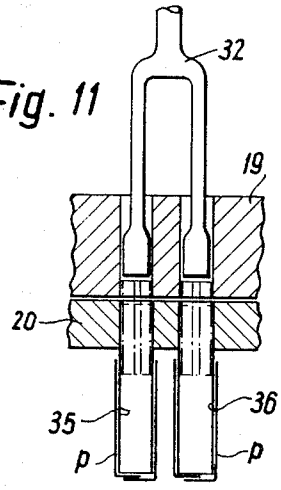


Fig. 12

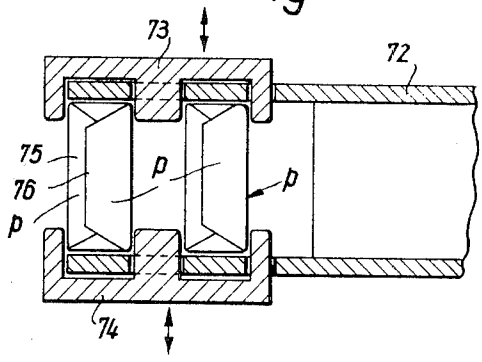


Fig. 13

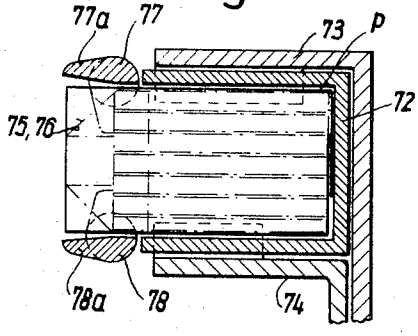
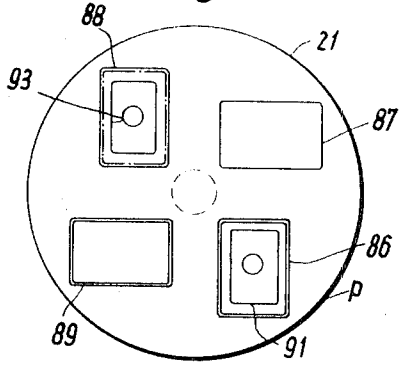


Fig. 14



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MACHINE FOR PACKING OF CIGARETTES IN SOFT PACKETS

The invention relates to a high speed packing machine for cigarettes and more specifically to a machine for packing groups of cigarettes in soft packets.

Cigarette packing machines of the type which have cigarettes being delivered from a supply container in groups to a cigarette packing mechanism are well known in the art. When using such a machine it sometimes happens that one of the devices involved will stop while the other devices continue operating. For example, the supply container becomes emptied and thus will not deliver any cigarettes to the packing device. Another example, is when the packing mechanism stops, while the supply container and its associated feeding mechanism continue to deliver cigarettes.

These disadvantages are eliminated by the present invention, and other improvements which will be described hereinafter will be readily seen.

According to the invention there is provided, in essence, a machine for packing of cigarettes in soft packets which has an increased capacity for transferring groups of cigarettes at each individual manipulating point along the transfer route that the groups of cigarettes travel through the machine. Novel dual handling means have been provided at each of the individual stations on the first and second turntables.

An embodiment of the invention will now be described by way of example only with reference to the accompanying drawings, in which:

FIG. 1 is an elevational view, with parts cutaway of the cigarette packing machine according to the invention;

FIG. 2 is a side view of FIG. 1 with various parts omitted;

FIG. 3 is a cross-sectional view of the supply container on an enlarged scale;

FIG. 4 is a detailed cross-sectional view of the lower horizontal portion of the supply container on an enlarged scale;

FIG. 5 is a plan view of a station on the first turntable on an enlarged scale;

FIG. 6 is a fragmentary cross-sectional view of the detector mechanism on the first turntable;

FIG. 7 is a plan view of station H on the second turntable on an enlarged scale;

FIG. 8 is another plan view of station H, with parts cutaway, on an enlarged scale;

FIG. 9 is a plan view of the folding tools at station F on the second turntable;

FIG. 10 is a plan view of station M, with parts cutaway on the second turntable;

FIG. 11 is a plan view of stations P and *i*, with parts cutaway, of the second and first turntables, respectively;

FIG. 12 is a plan view, partly in section, of station S followed by station R on the second turntable on an enlarged scale;

FIG. 13 is a cross-sectional view of Station S of FIG. 12; and

FIG. 14 is a plan view of the distributing turntable.

Cigarette blocks, that is groups of cigarettes which have been wrapped in metal foil, are described herein in accordance with the present invention, and it is conventional in the art for such blocks to be introduced as packets into slide carton members.

Referring to FIG. 1, cigarettes which have been made in a cigarette making machine are fed into a supply hopper 10. The cigarette supply hopper 10 is common to the left and right receiving stations. Each of the left and right stations comprises a plurality of fan-shaped channels 11 formed by parallel channel walls 12. Each of the left and right stations is further divided into two sections by distributor wall 12*a* (see FIG. 4) which is thicker than channel walls 12. As seen in FIG. 3, two outer layers of seven cigarettes each and one central layer of six cigarettes are united to form cigarette blocks 13. The channels 11 have been provided with dividers 14 which are staggered from layer to layer whereby the outer layers of cigarettes may be in the proper relationship with the central layer to form cigarette blocks 13.

In accordance with the invention, a double pusher mechanism 15 has been provided to eject two cigarette blocks simultaneously. Pusher 15 consists of six ejector rods 16 or three rods 16 for each group of three layers of cigarettes that form one cigarette block 13. The rods 16 have been designed in such manner that the required quantity of cigarettes are ejected from channel 11. The rods 16 are provided with vertical slits into which the dividers 14 are passed when ejecting the cigarettes. During a stroke of the double pusher mechanism 15, two cigarette blocks are ejected from the supply hopper 10. It is important in the operation of the machine as hereinafter described that the cigarette blocks which are in channels 11 are positioned one above the other.

The cigarette groups 13 which are being ejected by the double pusher 15, are inserted into recess members or press-pockets 17 and 18 (see FIG. 4) which are mounted on the first turntable or the so-called pressing revolvable platform 19. The press-pockets 17 and 18 are formed by semicup-shaped members 22, 23 and 24, 25, respectively, each one being separate from the other. The semicup portions 23 and 25 are made unitary with a fixed plate 26 on the first turntable 19.

In contradistinction to fixed portions 23, 25, the semicup portions 22 and 24 are made unitary with a movable plate 27. The plate 27 is movably mounted, to and fro, in the direction as shown by the dotted lines in FIG. 5, with respect to the permanent position of fixed plate 26. The movements of opening and closing of the press-pockets 17 and 18 are accomplished by the movable plate 27 on which a roller 29 is mounted at the end thereof that cooperates with cam track 28. The roller 29 runs on cam track member 28 as illustrated in FIG. 1. The shape of the semicups 22, 23, 24 and 25, the movements of portions 22, 24 and the relative positions of the semicup portions to each other, are designed in such a manner that in the open position as shown in full lines in FIG. 5, the cigarette blocks 13 can be inserted relatively free of resistance by the pusher 15. During the further rotary movement of the first turntable 19, the press-pockets 17 and 18 are closed. By the displacement of the semicups 22 and 24 into the closing positions as shown in dotted lines (see FIG. 5) the cigarette blocks 13 are grouped together.

Turntables with single pressing pockets are known in the art. However, what is not known, is the structure and operational function of two pressing pockets in accordance with the present invention. That is, the positioning and the mutual cooperation of two pressing pockets which are constructed preferably in an angular relationship to the radial direction of the pressing revolver, are novel. The relative positioning of both the parallel press-pockets 17 and 18 is determined by the positioning of the hereinafter described second turntable or the so-called revolvable platform 20 and especially the positioning of the two parallel folding chambers 35, 36 thereon. That is, the press-pockets 17, 18 are positioned 90° to the radial direction of the location of folding chambers 35, 36.

The first turntable 19 as illustrated in FIG. 1 has been designed with stations *a* to *k* for the reception of the two cigarette blocks 13 in the respective press-pockets 17, 18. At the station *a*, the cigarette blocks 13 are inserted into the open press-pockets 17, 18 as described herein. During the subsequent intermittent rotation of the first turntable 19, the pressing pockets 17, 18 are closed. At the stations *b*, *c* and *d*, the cigarette blocks are pressed therein. At the stations *e* and *f*, the proper filling of the cigarettes in the cigarette blocks 13 is accomplished by the controlling of the free ends thereof.

The control is accomplished by detectors 30 and 31 on the first turntable which operate on both sides of the cigarette blocks 13. The detectors 30 and 31 include a number of pins which correspond to the respective number of cigarettes and which are movable by a spring tension means (see FIG. 6). In accordance with the invention, there are provided on each detector (30 or 31), two groups 30*a*, 30*b*; 31*a*, 31*b*, respectively,

having pins which correspond to the number of cigarette blocks. The groups 30*a*, 30*b* and 31*a*, 31*b* operate on separate electric control circuits in such a manner that when a defective cigarette block 13 is detected, both cigarette blocks in their respective packets *p* at one station will not be rejected, but only the single packet *p* containing the defective cigarettes.

No functions which form part of this invention are performed at the stations *g* and *h*. At the station *i* the pressed cigarette blocks 13 are inserted into prepared packets *p* on the second turntable 20. A double pusher mechanism 32 propels the cigarettes at their ends thereof (see FIG. 11) to accomplish the transfer. For this purpose the press-pockets 17 and 18 are opened to the extent to enable the cigarette blocks 13 to be ejected relatively free of any resistance and without any deformation of the cigarette block.

At station *k* the press-pockets 17 and 18 are reopen and thus they are ready for the reception of the next cigarette blocks 13 at the station *a*.

The second turntable 20 has been designed for the wrapping of a cigarette block 13 in a packet *p*. Further, the second turntable 20 operates at an intermittent rotary movement to service stations A to R thereon.

Briefly, the invention as described above relates that the cigarette blocks 13 which are ejected from supply hopper 10, are transferred to the intermittently rotating first turntable 19 which is positioned behind the supply hopper 10. Incidental to this operation is the quality inspection of the cigarettes. The transferred cigarette blocks 13 are passed from the first turntable 19 to the adjacent second turntable 20. The filled packets *p* are propelled from second turntable 20 and are inserted into a third turntable or a distributing revolvable platform 21 where the packets *p* with defective cigarettes are separated.

In accordance with a principle of the invention, the arrangement of having at least two packets at each station provides an opportunity for operations to be performed on two packets simultaneously. For example, the material for the making of the two packets may be fed from one side for two packets.

At the station A on second turntable 20, a single piece or strip 33 of metal foil is utilized. It is a feature of this invention that a single metal foil strip for two packets may be handled in the same manner that a foil strip for a single packet was processed by prior art devices. The instant single metal foil strip 33 is not fed, as done previously, in a lengthwise, but a transverse direction with respect to the folding means. In addition the strip 33 has the width of two metal foil strips 33*a* and 33*b* positioned side by side (see FIGS. 1 and 7). It is readily seen that since two packets are now included, bobbin 34 may contain a much larger quantity of foil material than has been previously required for the wrapping operation of a single packet.

Contiguous and parallel positioned folding chamber members 35 and 36 have been provided on the second turntable as illustrated in FIG. 1. Folding members 35, 36 are made of a thin sheet material and are open at the ends thereof. The packets *p* are thus formed by rolling and also folding the metal foil around these folding members 35 and 36.

At the station A the double foil strip 33 is held in a relatively central position with respect to the folding chambers 35 and 36 and also in the forward rotary direction of the second turntable 20. Initially the strip 33 is held between feeding rollers 37 and 38. The double foil strip 33 is then positioned vertically to the level of second turntable 20 (see FIG. 7).

In order to form the required U-shaped configuration of the double foil strip 33 and to form the single foil strips 33*a* and 33*b*, a stamping member 39 is provided with moves from an exterior starting position shown in FIG. 1 to the final position shown in FIG. 7 between the folding members 35 and 36.

During the movement of the stamping member 39 the double foil strip 33 is brought forward and placed on two sides, namely, the side and bottom walls of the folding members 35 and 36. In the final position of the stamping member 39, a knife member 40 passes into groove 41 of the stamping member 39 by virtue of which the double foil strip 33 is severed in the proper position (see FIG. 7). The relative position of the stamping member 39 to the folding members 35 and 36 is designed in such a manner that after the cutting operation by knife 40 there are flaps or extensions 42 and 43 of the single foil strips 33*a* and 33*b* which extend beyond the dimensions of the folding members 35 and 36.

After the positioning of the double foil strips 33 onto the folding members 35 and 36, but prior to the cutting of the knife 40, holding members or stoppers 44 and 45 are placed onto the narrow front side of the folding members 35 and 36. By this means, the foil strips 33*a* and 33*b* are held in their proper positions on the folding chambers 35. For performing the U-shaped folding of the foil strips 33*a* and 33*b* around the folding members 35 and 36, there are provided fixed folding tools 46 at the station A. During the movement of the second turntable 20, the outer sides of the folding members 35 and 36 are passed. The side extensions of the foil strips 33*a*, 33*b* are placed on the outer sides of the folding members 35, 36 in such a manner that the folding of a U-shaped configuration of the foil strips 33*a*, 33*b*, as shown at the following stations B, C, D, E is accomplished in one single operation. Due to the lack of space at station A, additional operations are performed at stations B, C and D, in order to retain the fold made by the fixed folding tools 46.

During the further running of the second turntable 20 the folding tools 46 are led to the station E.

At station E extension inner flaps 42 and 43 as well as the outer extension flaps 47 and 48 of the foil strips 33*a* and 33*b* are folded by virtue of the rear walls of the folding members 35 and 36 in one single operation.

Folders 49, 50 and 51 have been provided at station E and are movable in radial direction to the second turntable 20. The folders 49, 50 and 51 are operated in succession not specifically shown (FIG. 1, Station E). Firstly, the flap 42 is folded to the outside by a transversal movement of the folder 50. Then the folding of the flap 47 is done by a transversal movement radially to the inside of the folder 49 at the same time that the folder 50 is withdrawn and moved in such a manner that the folding of the flap 43 is accomplished. During the movement of the folder 50 to the starting position, the folder 51 is moved radially to the outside and folds in this manner, the flap 48. In this way the extension flaps 42, 43, 47, 48 of the foil strip 33*a*, 33*b* are folded at one station.

In accordance with the present invention, the foil strips 33*a*, 33*b* only have one side seam for the packet *p*. For the fixing of the flaps 42, 43, 47, 48 in the folded position there are further stoppers or folding members 52 and 53 which are placed with their narrow sides onto the folding members 35 and 36. (FIG. 1, Station E).

The design and operation of the stoppers, 44, 45 as well as the stoppers 52 and 53 may be seen from FIG. 8. The stoppers 44, 45 are mounted onto bent levers 54 and 55. The bent levers 54, 55 are held by springs 56 in the placing position of the stoppers onto the folding members 35 and 36. The stoppers are to be lifted for folding on the narrow sides of the packets *p*. For the reception of cuts from the folding members 35 and 36 this is done in a suitable way by a pin 57 axially movable which operates on the free part 58 of the bent levers 54, 55 and lifts by this means the stoppers 52, 53, 44, 45 against the loading of the spring 56. At station E the stoppers 52 and 53 are lifted by the pin 57. The stoppers 44 and 45, however, can remain in their holding position. For the stoppers 44 and 45 a corresponding pin 57*a* has been provided at the stations A and H (shown at station H).

On the one end, extension flaps 59 and 60, which are to be the bottom of the packet *p*, and the foil strips 33*a*, 33*b* are folded at station F and G on the folding chambers 35 and 36. At station F there are provided double folding tools 61 and 62 (FIG. 9). The double folding tools 62 are mounted firmly in such a manner that the front parts of the flaps 59 and 60 are folded by the double folding tool 62 when the second turntable 20 is moved.

Flaps 59 and 60 are then folded by the movable double folding tool 61 (FIG. 9) by the movement of the second turntable. Inner and outer parts of the flaps 59 and 60 which lay close to the sides of the packets still are to be folded.

This is accomplished at station G by folding reels 63, 64, 65 which are movable radially to the second turntable 20. These are reciprocated in the same manner which has been described in connection with the folders 49, 50 and 51. In this way the folding of the foil strips 33*a* and 33*b* is achieved at station G. However, the packet is still open on one side. Thus at the stations A to G the rolling and folding operations for the foil strips 33*a*, 33*b* have been concluded so far.

At the station H the rolling and folding operation is commenced for the paper blanks 66*a*, 66*b*. In accordance with the invention, these blanks are fed into the station H of the second turntable 20 with their transversal side, i.e., in the form of a double paper blank 66 consisting of two adjacent blanks 66*a*, 66*b*, each for one packet *p*.

Also at this station a large quantity of material is fed in transport. The difference of the feeding of the double paper blank 66 in contrast to the feeding of the double foil strips 33 is that the double paper blank 66 prior to being fed to the station H is provided with the necessary glue, preferably with hot-melting glue 70 and glue points 96 (FIG. 2). The hot-melting glue points 70 and glue points 96 are activated after the folding thereof. The folding of the paper blank around the folding members 35 and 36 and around the folded foil strips is done at the stations H, I, K, L in the same way as described in connection with the stations A, E, F, G for the foil strip 33. The stoppers 44 and 45, 52 and 53 on the second turntable 20 do the same work as described heretofore.

At the stations K, L, M only the double stamping member 67, FIG, 10, is used. The formed bottom of the foil-cut and the paper blank is made by member 67 by pressing against the double folding tools 61, 62 (station K), the folding rails 63, 64, 65 (station L) and the double heating stamper 69 at station M. In this way the folds formed so far are smoothened and straightened The pressing of these folds is done at the three mentioned stations K, L, M in the same way that each station corresponding to double stamping member 67 has been arranged. The member 67 is mounted on mutual lever 68 when they are operated.

In accordance with the invention, at station M the double paper blank 66 with hot-melting glue points 70 (FIG. 2) are provided for each paper blank 66*a* and 66*b*. The advantage of these hot-melting glue points 70 is that they do not disturb the packing process and that they can be activated at the required time by the influence of compression and heat. This means that there is already the hot melting glue at the foregoing stations. At the station the hot-melting glue points 70 on the already folded packets are mutually activated by the heating stamping member 69 and at the same time the bottom of the paper blank is glued. This is very advantageous for the packing process (FIG. 10).

No operations which form part of this invention are performed at stations N and O. In the position P the prepared and pressed cigarette blocks 13 are pushed by the double-pusher 32 out of the pressing pockets 17 and 18 into the ready folded on one side open packets respectively into the folding members 35 and 36 around which the packets are folded (as already described, FIG. 11).

At the station R the cigarette blocks are pushed by a double stamping member 71 out of the folding members 35 and 36 (FIG. 2). In this manner the packets *p* are propelled from the outside of the folding members 35 and 36 together with the cigarette blocks 13 in such a manner that by this operation the cigarette blocks 13 are passed into the corresponding packets *p* which are still open on one side.

The last foldings are done at the station S. The packets *p* are to be found at this station S on a discharge track 72. On discharge track 72 the packets *p* at the station S are first fixed and held by comblike distance holders 73 and 74. The comblike distance holders 73 and 74 hold the packets from below and from above in such a manner that the distance from one cigarette packet to the other remains unchanged (FIG. 12).

During the last folding, the side with regard to the position of the packets at the station S are to be folded. Thus, the extension flaps 75 and 76 of the packets of the foil strips 33*a*, 33*b* respectively, are to be folded. In this next stage of the operation, these flaps form the upper closing means. In accordance with the invention, first, the small parts of the flaps 75 and 76 are to be folded by the folders 77 and 78. These are arranged on the side of the still open flaps 75 and 76 below and above of both packets *p* (see FIGS. 1 and 13). The folders 77 and 78 have fingers 77*a*, 78*a* which can be moved 90° onto narrow front sides of the packets *p*. At the same time the narrow parts of the flaps 75 and 76 are folded onto the packets.

The extensions on parts of the flaps 75 and 76 are folded by a comblike folder 79 with two folders 80 and 81. First, the folder 79 is moved to the right as shown by the arrow 82 (FIG. 2).

In this manner the flap 76 of the packet *p* is folded by the folder 80 and the flap 76 of the other packet *p* is folded by the folder 81. The flap 75 of the packet *p* is automatically folded during the further movement of both packets. The discharge track 72 is limited in sidewise movement by a wall 83 which has been provided with a folding edge 84. When introducing the packets into the range of the sidewall 83 the flap 72 of the first packet is folded by the folding edge 84 while the flap 72 of the second packet is folded by the edge of the folder 81. In the range of the sidewall 83 of the discharge track 72 the packets *p* lie side by side.

During the further movement of the packets *p* they are transferred to the distributing turntable 21. The turntable 21 has been provided with four openings 85, 86, 87, 88, each one for the reception of one packet. Due to the intermittent discharges of the stamping member 89 and the pusher 90, the packets are inserted one after the other into the prepared openings 85, 86, 87, 88 of the distributing turntable 21 (FIG. 14).

The distributing turntable 21 is moved 90° after each insertion. In this manner the packets *p* are inserted into the opening 85. In this position the turned package is pushed out of the distributing turntable 21 by a further pusher member 91 into the packet track 92 in which the packets are transported intermittently in their side by side position.

In cooperation with the distributing turntable 21 the packets with eventually faulty cigarettes are separated. These faults have been detected at the stations *e* and *f* of the first turntable 19 by end detectors 30 and 31, as hereinbefore described.

The detection means commences a corresponding signal to the distributing turntable 21 by corresponding electric control circuits. In this manner the faulty packet is separated. The separation is done when the pusher 91 is stopped for one operation which means that the faulty packet remains in the corresponding opening 85, 86, 87, 88 of the distributing turntable 21. During the further run of the distributing turntable 21 the faulty packet finally comes to the position of the opening 88 (see FIG. 14). Here there has been provided pusher 93 which only ejects faulty packets out of the turntable onto a packet track 94.

There has been provided a pusher 90 with movable grippers 90*a* and 90*b* whereby the packets are pushed by the stamper 89 onto the discharge track 72 in pairs (see arrow 95 in FIG. 1). It is to be noted that on the distributing turntable 21 only single packets can be handled and transported. Thus there is an additional operation between the two movements of the stamping member 89. One packet *p* is always behind the adjacent packet. This packet on the discharge track 72 is pushed by a distance corresponding to one width of a packet. In this manner there are always single packets introduced intermittently one after the other into the distributing turntable 21 by virtue of the double operating speed of the stamping member 89.

I claim:

1. A machine for packaging cigarettes in soft packets comprising:

a. a supply container for the cigarettes to be packaged,

b. feed means located within said supply container for feeding at least two groups of cigarettes,
c. a first turntable positioned adjacent said supply container and having stations thereon.
d. a plurality of said stations having means for preparing arrangements of at least two blocks of cigarettes at an individual station,
e. at least one of said first turntable stations having two parallel positioned recesses for receiving said two block arrangements of cigarettes,
f. a second turntable positioned adjacent said first turntable and having stations thereon,
g. said second turntable cooperating with the first turntable to receive said block arrangements of cigarettes,
h. means located at several of said second turntable stations to perform the operations of making and closing two packet arrangements for said two block arrangements of cigarettes in an individual station,
i. means for transferring the two block arrangements from the first turntable to the packet arrangements,
j. said performing means of second turntable including a pair of folding means for folding packet blanks, said folding means being parallel to each other and located at several of the second turntable stations.

2. A packing machine as defined in claim 1, wherein the feeding means in said supply container comprises U-shaped channel members and an ejector means, the lower portion of said channel members allowing the ejection of at least two groups of cigarettes by the insertion of said ejector means in said channel portions.

3. A packing machine as defined in claim 1 wherein the two parallel positioned recesses are formed by pressing pocket members having a pressing position and an open position for receiving said two block arrangements of cigarettes.

4. A packing machine as defined in claim 3, wherein the two parallel positioned recesses are formed by pressing pocket members having a pressing position and an open position for receiving said two block arrangements of cigarettes that have been ejected by said ejector means from said channel portions.

5. A packing machine as defined in claim 1, and further comprising detector means associated with several of said first turntable stations and sensitive to the operative conditions thereon to detect defective blocks of cigarettes.

6. A packing machine as defined in claim 1 and further comprising detector means which are independently associated with said respective parallel recesses of said first turntable, which are sensitive to the operative conditions of said recesses, and which include groups of pins which operate with independently controlled circuits to detect defective blocks of cigarettes.

7. A packing machine as defined in claim 1, and further comprising movably mounted holding members for positioning of said packet blanks in the range of said pair of folding means.

8. A packing machine as defined in claim 1,
said performing means further comprising a folding tool mechanism reciprocally movably mounted at one of said second turntable stations to fold the inner edges of said packet blanks.

9. A packing machine as defined in claim 1,
said performing means further comprising a double folding tool mechanism movably mounted at one of said second turntable stations to fold the overlapping edges of said packet blanks.

10. A packing machine as defined in claim 1, said performing means further comprising movable folder means having finger members thereon at one of the stations on the second turntable for folding the paper blank to form at least the rear side of the packet.

11. A packing machine as defined in claim 1, further comprising a third turntable associated with one of the other two turntables and having openings thereon of a size to receive packets; said third turntable separates the defective packets from the acceptable packets.

12. A packing machine as defined in claim 1, and further comprising a third turntable operatively associated with said second turntable for receiving packets and for determining the defective ones.

13. A packing machine as defined in claim 1 further comprising a third turntable operatively associated with the second turntable, said third turntable having recesses to receive packets, and means on said third turntable to reject the faulty packets.

14. A machine for packaging cigarettes comprising:
a. a supply container for the cigarettes,
b. feed means located within said supply container for feeding groups of cigarettes,
c. a first turntable positioned adjacent said supply container and having stations thereon,
d. a plurality of said stations having means for preparing arrangements of at least two blocks of cigarettes at an individual station,
e. at least one of said first turntable stations having two parallel positioned recesses for receiving said two block arrangements of cigarettes,
f. a second turntable being positioned adjacent said first turntable and having stations thereon,
g. a pair of folding means parallel to each other and located at several of said second turntable stations for folding packet blanks,
h. said second turntable cooperating with said first turnable to receive said block arrangements of cigarettes,
i. said folding means being transversly mounted with respect to the position of the two parallel positioned recesses of said first turntable,
j. a stamping and cutting means movably mounted between said pair of folding means wherein a single packet blank fed in the rotary direction of the second turntable is wrapped around said folding means and severed during the folding operation, and
k. means located at several of said second turntable stations to perform the operations of making, filling and closing two packet arrangements for said two block arrangements of cigarettes in an individual station.

15. A machine for packaging cigarettes comprising:
a. a supply container for the cigarettes,
b. feed means located within said supply container for feeding groups of cigarettes,
c. a first turntable positioned adjacent said supply container and having stations thereon,
d. a plurality of said stations having means for preparing arrangements of at least two blocks of cigarettes at an individual station,
e. at least one of said first turntable stations having two parallel positioned recesses for receiving said two block arrangements of cigarettes,
f. a second turntable being positioned adjacent said first turntable and having stations thereon,
g. a pair of folding means parallel to each other and located at several of said second turntable stations for folding packet blanks,
h. said second turntable cooperating with said first turntable to receive said block arrangements of cigarettes,
i. said folding means being transversely mounted with respect to the position of the two parallel positioned recesses of said first turntable,
j. a heated stamping mechanism at one of the stations on the second turntable for folding paper blanks to form the bottom of each of the packets, and
k. means located at several of said second turntable stations to perform the operations of making, filling and closing two packet arrangements for the two block arrangements of cigarettes in an individual station.

16. A machine as defined in claim 1 wherein

said folding means includes two adjacent folding cores laterally displaced with respect to each other and means to fold a single packet blank over each of the adjacent cores and

said performing means includes means to sever the single packet blank after folding over the adjacent cores.

17. A machine as defined in claim 16 wherein

said performing means includes means located at one of the stations on the second turntable to partially fold the extensions of the packet blank.

18. A machine for packaging cigarettes in soft packets comprising:

a. a supply container for the cigarettes to be packaged,

b. a movable packet forming means,

c. two adjacent folding cores being disposed on said packet forming means, said core having a pair of broad sides and a pair of narrow sides to form a rectangular cigarette packet,

d. at least two of the folding cores having opposite broad sides facing each other whereby the narrow sides of the cores move generally forwardly as the packet forming means moves,

e. means for feeding a single packet blank into the path of the forwardly moving folding cores,

f. means for draping the single packet blank over the forward side and broad sides of each of the adjacent folding cores,

g. means to sever the single packet blank into two separate blanks after the single blank has been folded over the adjacent cores for forming two adjacent open packets, and

h. second means for feeding at least two groups of cigarettes

from the supply container into adjacent open packets located on the packet forming means.

19. A machine for packaging cigarettes in soft packets comprising:

a. a supply container for the cigarettes to be packaged,

b. a movable packet forming means,

c. a plurality of folding cores adjacently disposed on said packet forming means, each said core having a pair of broad sides and a pair of narrow sides to form a rectangular cigarette packet,

d. at least two of the folding cores having opposite broad sides facing each other whereby the narrow sides of the cores move generally forwardly as the packet forming means moves,

e. means for feeding a single packet blank into the path of the forwardly moving folding cores,

f. means for folding the single packet blank over each of the adjacent cores,

g. means to sever the single packet blank after folding over the adjacent cores to form adjacent open packets, and

h. second means for feeding at least two groups of cigarettes from the supply container into adjacent open packets located on the packet forming means.

20. A machine as defined in claim 19 wherein

said packet forming means revolves and

said folding cores are disposed along a radial line of the revolving packet forming means whereby the narrow sides of the cores move in a generally circumferential direction.