Dec. 30, 1958 K. KÖRBER 2,866,304

METHOD OF PRODUCING A SOFT PACKAGE FOR CIGARETTES

Filed Sept. 26, 1955 4 Sheets-Sheet 1

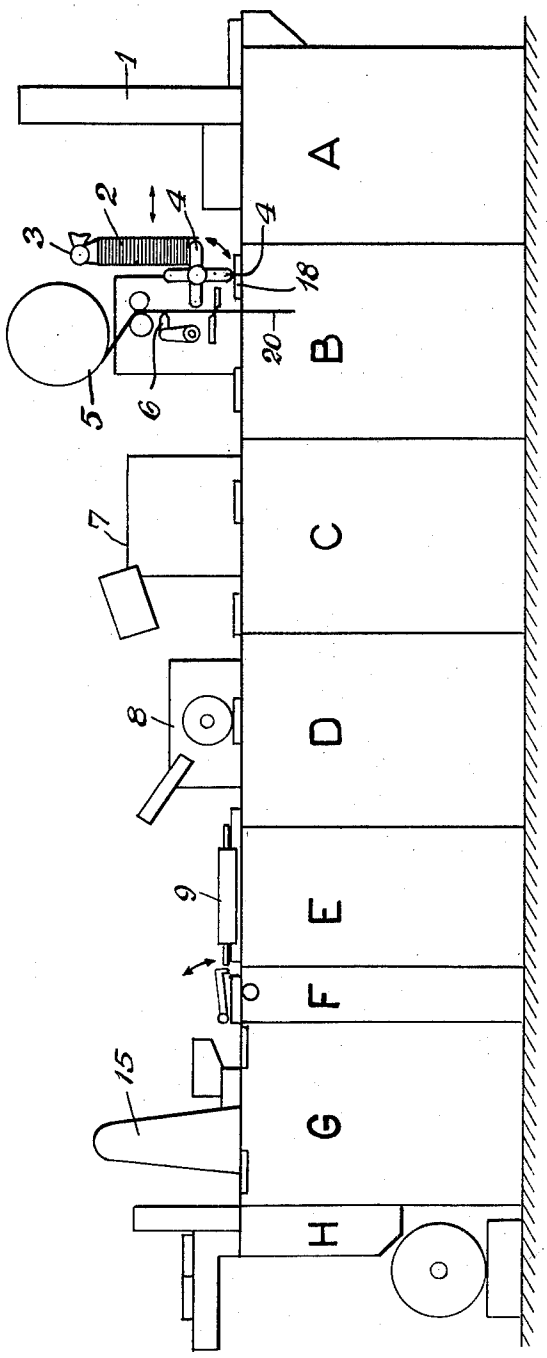


Fig. 1

INVENTOR.
Kurt Körber
BY
Singer, Stern & Carlberg,
Attorneys

Dec. 30, 1958 K. KÖRBER 2,866,304

METHOD OF PRODUCING A SOFT PACKAGE FOR CIGARETTES

Filed Sept. 26, 1955 4 Sheets-Sheet 2

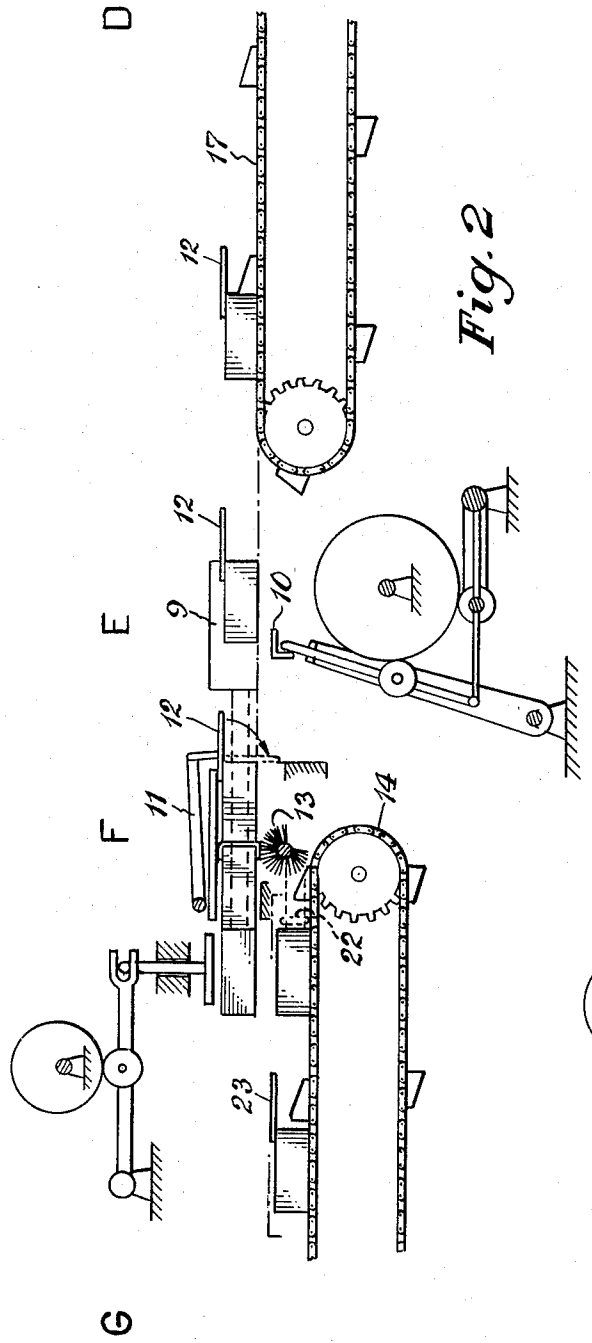


Fig. 2

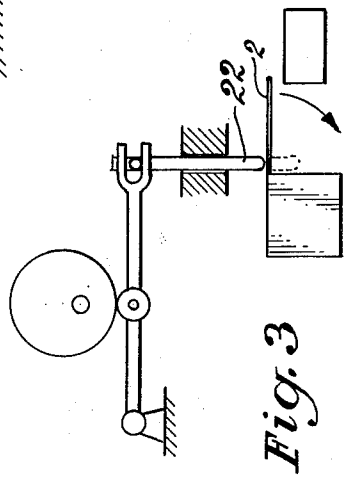


Fig. 3

INVENTOR.
Kurt Körber
BY
Singer, Stern & Carlberg,
Attorneys

Dec. 30, 1958 K. KÖRBER 2,866,304

METHOD OF PRODUCING A SOFT PACKAGE FOR CIGARETTES

Filed Sept. 26, 1955 4 Sheets-Sheet 3

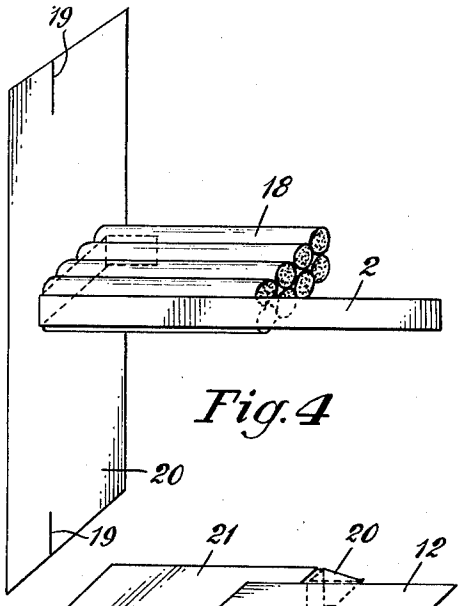


Fig. 4

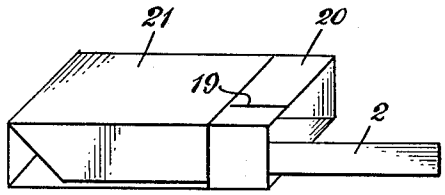


Fig. 5

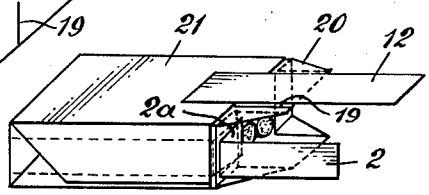


Fig. 6

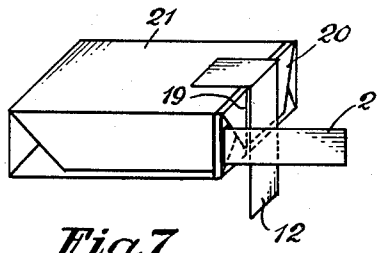


Fig. 7

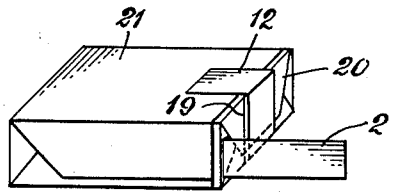


Fig. 8

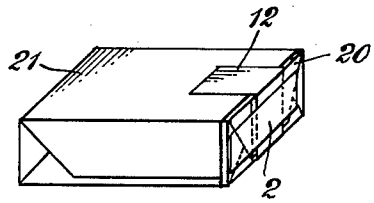


Fig. 9

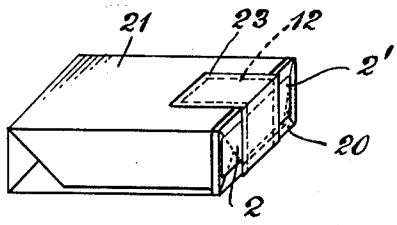


Fig. 10

INVENTOR.
Kurt Körber
BY
Singer, Stern & Carlberg,
Attorneys

Dec. 30, 1958 K. KÖRBER 2,866,304

METHOD OF PRODUCING A SOFT PACKAGE FOR CIGARETTES

Filed Sept. 26, 1955 4 Sheets-Sheet 4

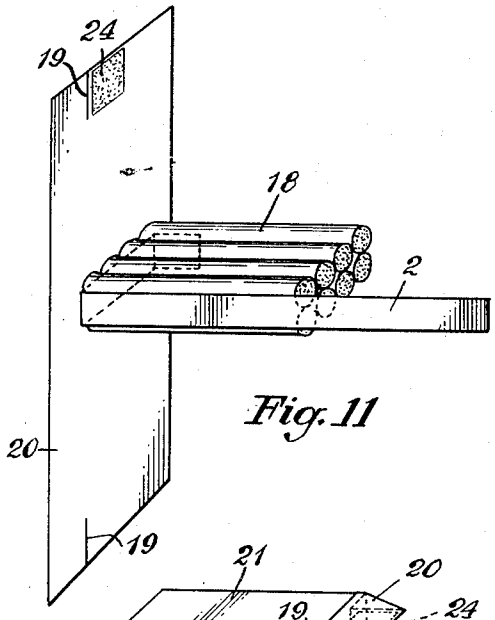


Fig. 11

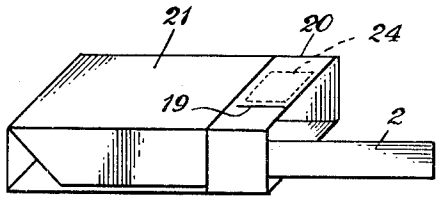


Fig. 12

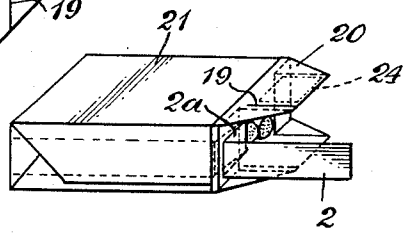


Fig. 13

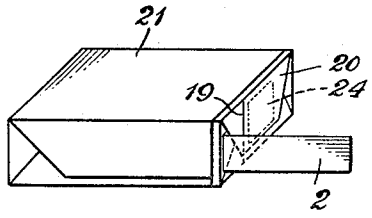


Fig. 14

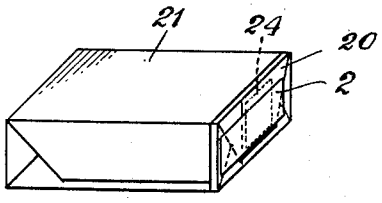


Fig. 15

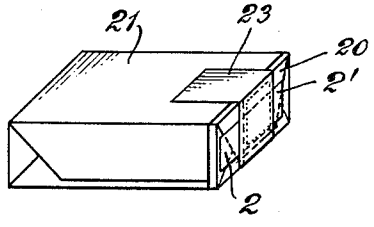


Fig. 16

INVENTOR.
Kurt Körber
BY Singer, Stern & Carlberg,
Attorneys

United States Patent Office 2,866,304
Patented Dec. 30, 1958

2,866,304

METHOD OF PRODUCING A SOFT PACKAGE FOR CIGARETTES

Kurt Körber, Hamburg-Bergedorf, Germany, assignor to Kurt Korber & Co. K. G., Hamburg-Bergedorf, Germany

Application September 26, 1955, Serial No. 536,361

Claims priority, application Germany October 2, 1954

5 Claims. (Cl. 53—14)

The invention relates to a method of producing a soft package for cigarettes, miniature cigars and the like. In particular, the invention relates to a method of producing a soft package in which a portion of the head closure may be separated from the remaining head closure by means of a manually actuated operating strip which, when pulled, opens a portion of the head closure so that a small opening in the corner of the package is formed through which individual cigarettes may be discharged from the package.

It is an object of the invention to provide a method of producing a novel soft package for cigarettes and the like, which package has such a construction that during the pulling of the operating strip, the latter not only opens a portion of the head closure of the package but at the same time tears and destroys the tax stamp which may be attached to the head closure of the package.

The method of the present invention may be practiced by employing a specially designed cigarette packing machine or also a conventional cigarette packing machine may be employed, in which latter case, however, suitable auxiliary devices will have to be provided. The operating strip to be combined or to be incorporated in the soft cigarette package is taken from a supply device, for instance, from a magazine or from a supply spool 2 by means of a gripper—for instance, a pivotally mounted suction gripper, and in case of a supply spool is separated from the latter by means of a suitable cutting device. The mentioned gripper transfers the operating strip to the front face of a cigarette assembly block which is supplied with a number of cigarettes or a cigarette assembly by a cigarette magazine. At this cigarette assembly block the operating strip is folded U-shaped about the cigarette assembly. Suitable tools, for instance, knives, provide a sheet of tinfoil in which the cigarette assembly is to be wrapped with small cuts or perforations limiting the size of the opening in the head closure when the package is ripped open. After these cuts or perforations have been made, the cigarette assembly is folded into the mentioned tinfoil without folding the head closure. After this, the outer wrapping is applied, and the operating strip with a folded portion is placed against the end wall of the package. Thereupon, one end of a closure stamp is attached to one of the wide sidewalls and then the head end of the package is folded over the narrow end wall, whereby at the same time the folded portion in the operating strip is covered by the adjacent end flaps. Then the end or head closure is completed by folding the closure stamp over the end wall. The outer end portion of the operating strip is then folded against the end face of the package. Finally, the package is provided with a tax stamp which covers a portion of the operating strip and the closure stamp.

According to another object of the invention, the above described method may be somewhat modified in that the operating strip is secured to the inner wrapping, or when the latter is omitted, is directly secured to the

package without being folded around the cigarette assembly.

Still another object of the invention is a method in which the closure stamp is omitted, in which case the head closure portion of the inner wrapping sheet is provided with an adhesive area at its upper edge, or is closed by other suitable closure arrangements.

With these and other objects in view, the invention will now be described by way of example in connection with two wrapping machines which are illustrated in the accompanying drawings.

In the drawings:

Fig. 1 illustrates diagrammatically a cigarette packing machine in which the individual method steps are performed at the positions A, B, C, D, E, F, G and H.

Fig. 2 illustrates diagrammatically in side view a detail of the machine at the positions E, F and G.

Fig. 3 shows in top plan view a detail of the packing machine at the position G.

Figs. 4, 5, 6, 7, 8, 9 and 10 show a cigarette package in its successive stages of formation in which the head closure is provided with a tax stamp; and the Figs. 11, 12, 13, 14, 15 and 16 show each a cigarette package in different stages of production in which the head closure is provided with an adhesive area.

Referring firstly to Fig. 1, there is indicated at "A" a cigarette magazine 1, from which a plurality of cigarettes is discharged and held together to form an assembly 18, as shown in Fig. 4. This group or assembly of cigarettes is conveyed to the position "B," at which is located a magazine containing operating strips 2. This magazine 2 is pivotally mounted about a bearing 3. A turnstile 4 takes one operating strip at a time from the lower end of the magazine 2 by means of suction and after the turnstile has rotated 90°, it has placed the operating strip 2 transversely in front of the end face of the cigarette assembly 18. A tinfoil wrapping device 5 of known construction is provided with special knives 6 which, according to Fig. 4, provide opposite edges of the sheet or strip of tinfoil 20 with marginal cuts 19, or with perforations.

Fig. 4 illustrates the position in which the cigarette assembly 18, together with the U-shaped folded operating strip 2 is in abutment with the tinfoil wrapper 20.

At the position C, the wrapping of the cigarette assembly 18 in the tinfoil sheet takes place without, however, closing the head end. At this point takes place also in customary manner the insertion of the wrapped cigarette assembly into the outer wrapper 21, by means of the outer wrapping device 7.

Fig. 5 illustrates the cigarette package 21 when it leaves the position C. At the position D there is arranged a conventional stamp applying device 8 which attaches one end of a closure stamp to the wide side-wall of the package, which, thereupon by means of an endless chain 17, as shown in Fig. 2, is conveyed between guides toward the left. The attachment of the closure stamp has to take place as shown in Fig. 6 in such a manner that the closure stamp 12 will be positioned laterally on the right-hand side of the cuts 19 and, furthermore, in such a manner that these cuts are not covered by the closure stamp 12. In the position E, the package is transferred to a carriage 9 and upon the latter, there is folded by means of two folding elements of different length the head closure on the narrow sides and at the same time a fold 2a is formed in the operating strip 2 where it projects outwardly from the package so that the package will have the appearance as shown in Fig. 6. Thereafter, the closure of the head is completed by means of a folding element 10, while in the position F a folding element 11 is operated which at the same time with the upper wide closure flap folds the closure stamp 12 over

the end face of the package, as shown in Fig. 7. Also at the position F, there is provided a rotatable brush segment 13 which folds the lower free end of the closure stamp 12 completely against the under face of the package, as shown in Fig. 8. Now, the operation of a plunger 22 takes place which folds the free end of the operating strip 2, which heretofore was projecting straight outwardly from the fold 2 against the end face of the package, as shown in Fig. 9. Now the conveyor chain 14 moves the package to the position G where a tax stamp attachment device 15 is arranged so that the latter applies and folds the tax stamp 23 transversely over the operating strip 2. At the same time the tax stamp 23 covers the entire closure stamp 12 and also the cuts 19 in the tinfoil wrapper. The completely closed package has the appearance as shown in Fig. 10 and is transported in the position H to a discharging device of known construction.

As shown in Fig. 10, the operating strip 2 with its free handle portion 2' projects from a position beneath the tax stamp 23 so that when the handle portion 2' is lifted, the tax stamp 23 will be torn open, and thereupon the corner of the package, where the cuts 19 are provided, is opened, and it is now possible to slide the cigarettes outwardly which are positioned in this corner of the package.

A modification of this method of forming a soft cigarette package is illustrated in connection with the Figs. 1 and 11 to 16. According to this revised method, the tinfoil wrapper 20 is provided in the position B with an adhesive area 24, as shown in Fig. 11. The package then moves to the position C, where it has the appearance as shown in Fig. 12, while the package has the appearance as shown in Fig. 13 after it has passed the position E. In Fig. 14, the head closure has been closed by the adhesive action of the area 24. Fig. 15 shows the package in the position F with the operating strip folded against the end face of the package, while Fig. 16 shows the tax stamp attached to the package in a similar manner, as shown in Fig. 10.

Instead of employing the adhesive area 24 for the purpose of closing the head end of the package, the folds forming the head closure may also be held in position by means of a staple, or similar fastening means.

It is believed to be obvious that the production of the described cigarette package may take place in conventional packing machine equipped with the necessary auxiliary instrumentalities. In particular, it is advisable to employ for the application and folding of the operating strip an auxiliary operating unit and to attach this to the conventional cigarette packing machine.

What I claim is:

1. A method of producing a soft package filled with cigarettes and having at one end a head closure, a portion of which is adapted to be separated from the remainder of the head closure by a manually actuatable operating strip which is normally held in engagement with the end face of the head closure by a tax stamp or the like and destroys the latter when the operating strip is lifted, including the steps of placing a cigarette assembly, consisting of a plurality of cigarettes to be packed, with one of its cigarette ends against an inner wrapping sheet, providing the opposite margins of the sheet which later form closure flaps of the head closure with cuts, applying a longitudinal operating strip to one narrow side of the cigarette assembly in such a manner that one end of said strip projects beyond the other end of said cigarette assembly, folding the inner wrapping sheet around said cigarette assembly, forming a fold in said operating strip at the place where it projects from the cigarette assembly and placing said fold under the flap portions of the closure head formed by said cuts, securing said flap portions together to prevent their separation, folding the remaining portion of said operating strip lengthwise against the outer end face of the closure head and then securing a tax stamp transversely across the closure head and over said operating strip in such a manner as to leave the free end of the operating strip readily accessible.

2. A method of producing a soft package filled with cigarettes and having at one end a head closure, a portion of which is adapted to be separated from the remainder of the head closure by a manually actuatable operating strip which is normally held in engagement with the end face of the head closure by a tax stamp or the like and destroys the latter when the operating strip is lifted, including the steps of placing a cigarette assembly, consisting of a plurality of cigarettes to be packed, with one of its cigarette ends against an inner wrapping sheet, providing the opposite margins of the sheet which later form closure flaps of the head closure with cuts, applying a longitudinal operating strip to one narrow side of the cigarette assembly in such a manner that one end of said strip projects beyond the other end of said cigarette assembly, folding the inner wrapping sheet around said cigarette assembly, forming a fold in said operating strip at the place where it projects from the cigarette assembly and placing said fold under the flap portions of the closure head formed by said cuts, securing a closure stamp to the folded flap portions of said closure end so that the end portions of said closure stamp are attached to the wide wall faces of said package, folding the remaining portion of said operating strip lengthwise against the outer end face of the closure head and over the closure stamp, and then securing a tax stamp transversely across the closure head and over said operating strip in such a manner as to leave the free end of the operating strip readily accessible.

3. A method of producing a soft package filled with cigarettes and having at one end a head closure, a portion of which is adapted to be separated from the remainder of the head closure by a manually actuatable operating strip which is normally held in engagement with the end face of the head closure by a tax stamp or the like and destroys the latter when the operating strip is lifted, including the steps of placing a cigarette assembly, consisting of a plurality of cigarettes to be packed, with one of its cigarette ends against an inner wrapping sheet, providing the opposite margins of the sheet which later form closure flaps of the head closure with cuts, providing at one of said margins an adhesive area to one side of the cut in said margin, applying a longitudinal operating strip to one narrow side of the cigarette assembly in such a manner that one end of said strip projects beyond the other end of said cigarette assembly, folding the inner wrapping sheet around said cigarette assembly, forming a fold in said operating strip at the place where it projects from the cigarette assembly and placing said fold under the flap portions of the closure head formed by said cuts, said adhesive area forming the means for holding the overlapping flaps together, folding the remaining portion of said operating strip lengthwise against the folded and adhesively secured flap portions on the outer end face of the closure head and then securing a tax stamp transversely across the closure head and over said operating strip in such a manner as to leave the free end of the operating strip readily accessible.

4. A method of producing a soft package filled with cigarettes and having at one end a head closure, a portion of which is adapted to be separated from the remainder of the head closure by a manually actuatable operating strip which is normally held in engagement with the end face of the head closure by a tax stamp or the like and destroys the latter when the operating strip is lifted, including the steps of placing a cigarette assembly, consisting of a plurality of cigarettes to be packed, with one of its cigarette ends against an inner wrapping sheet, providing the opposite margins of the sheet which later form closure flaps of the head closure with cuts, applying a longitudinal operating strip to one narrow side of the cigarette assembly in such a manner that one end of

said strip projects beyond the other end of said cigarette assembly, folding the inner wrapping sheet around said cigarette assembly, forming a fold in said operating strip at the place where it projects from the cigarette assembly and placing said fold under the flap portions of the closure head formed by said cuts, securing a closure stamp to the folded flap portions of said closure end so that the end portions of said closure stamp are attached to the wide wall faces of said package, folding the remaining portion of said operating strip lengthwise against the outer end face of the closure head and over the closure stamp, and then securing a tax stamp transversely across the closure head and over said operating strip in such a manner to leave the free end of the operating strip readily accessible, said closure stamp being applied in such a manner so as not to cover the cuts in said inner wrapper and said tax stamp being wider and longer than said closure stamp so as to completely cover the latter.

5. A method of producing a soft package filled with cigarettes and having at one end a head closure, a portion of which is adapted to be separated from the remainder of the head closure by a manually actuatable operating strip which is normally held in engagement with the end face of the head closure by a tax stamp or the like and destroys the latter when the operating strip is lifted, including the steps of placing a cigarette assembly, consisting of a plurality of cigarettes to be packed, with one of its cigarette ends against an inner wrapping sheet, providing the opposite margins of the sheet which later form closure flaps of the head closure with cuts, applying a longitudinal operating strip to one narrow side of the cigarette assembly in such a manner that one end of said strip projects beyond the other end of said cigarette assembly, folding the inner wrapping sheet around said cigarette assembly, inserting the cigarette assembly with its inner wrapper and operating strip thereon into an outer wrapper, forming a fold in said operating strip at the place where it projects from the cigarette assembly and placing said fold under the flap portions of the closure head formed by said cuts, securing said flap portions together to prevent their separation, folding the remaining portion of said operating strip lengthwise across said folded flap portions against the outer end face of the closure head and then securing a tax stamp transversely across the closure head and over said operating strips in such a manner as to leave the free end of the operating strip readily accessible.

References Cited in the file of this patent

UNITED STATES PATENTS

1,458,977	De Escobales	June 19, 1923
2,129,888	Tamarin	Sept. 13, 1938
2,625,775	Tamarin et al.	Jan. 20, 1953