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(54) **METHODS OF MAKING SLIDE-ZIPPERED
RECLOSABLE PACKAGES ON
HORIZONTAL
FORM-FILL-SEAL-MACHINES**

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(57) **ABSTRACT**

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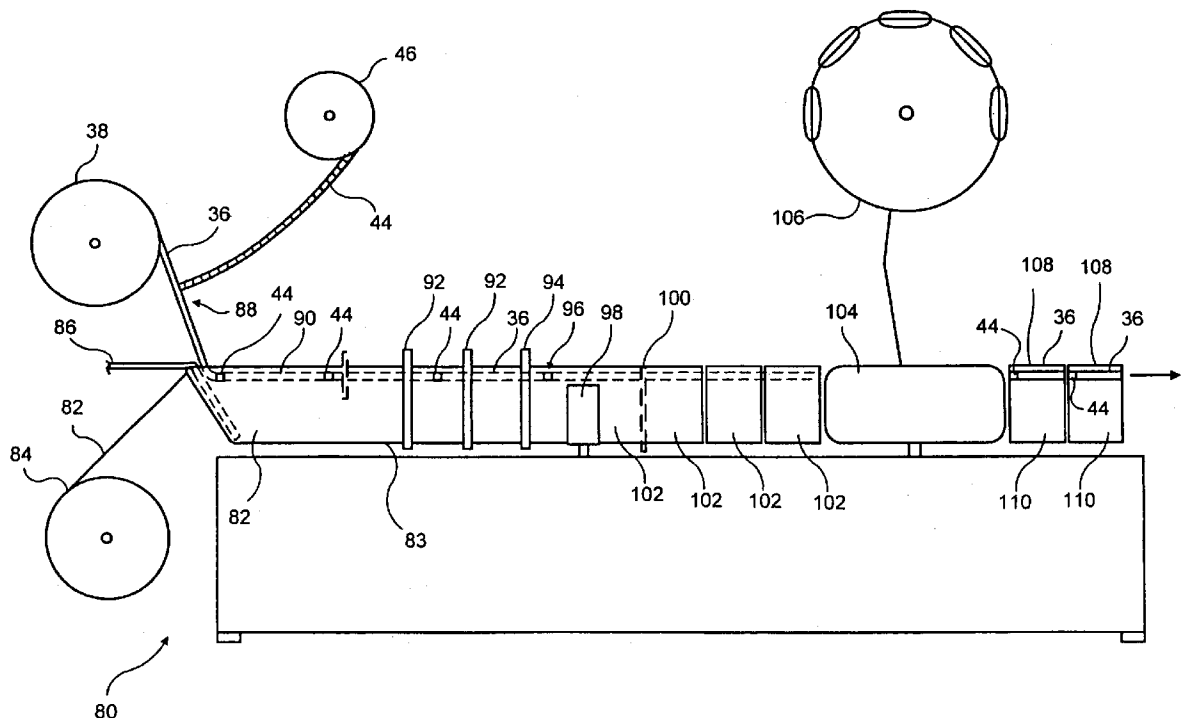
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25, 2001, which is a division of application No.

Methods of making slide-zippered reclosable packages are provided. In one embodiment, a pair of opposing film extensions are provided on each package between which a zipper and slider are attached. In another embodiment, sliders are inserted on to zippered packages output from a form-fill-seal machine or the like. In yet another embodiment, during package formation a reclosable zipper is sealed to each package and then a slider is inserted on to the zipper. In yet another embodiment, during package formation a reclosable zipper is sealed to each package and a slider is inserted on to each zipper, either before or after zipper sealing.



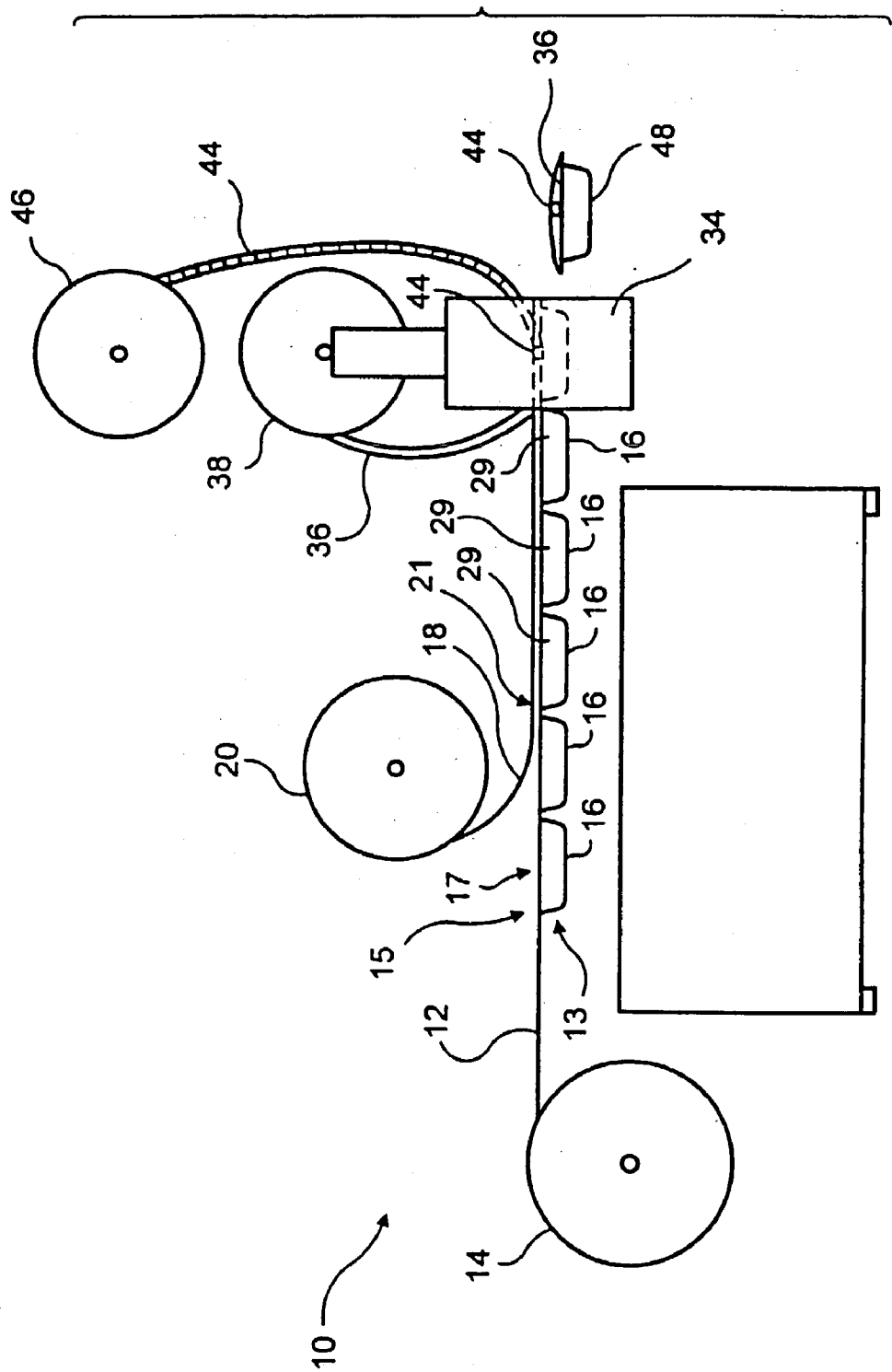


FIG. 1

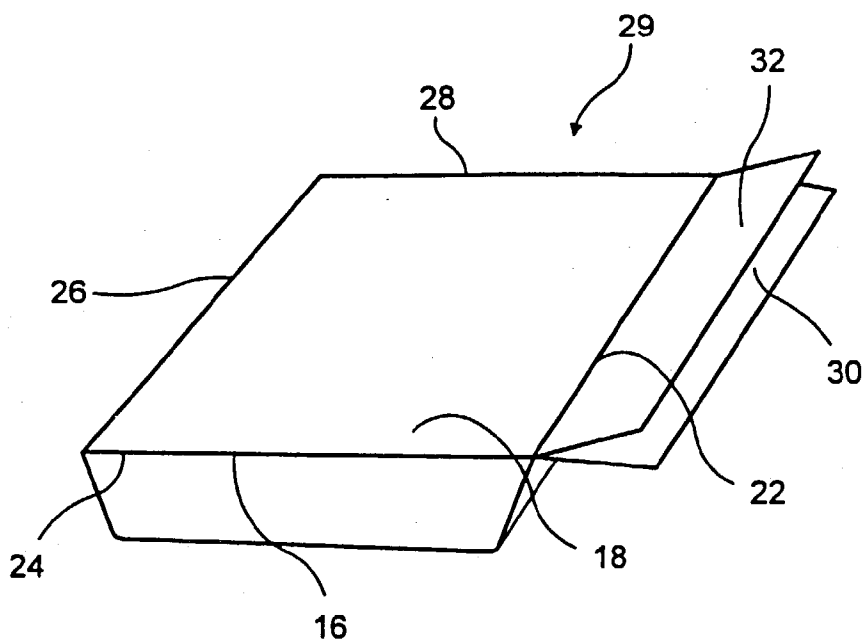


FIG. 2

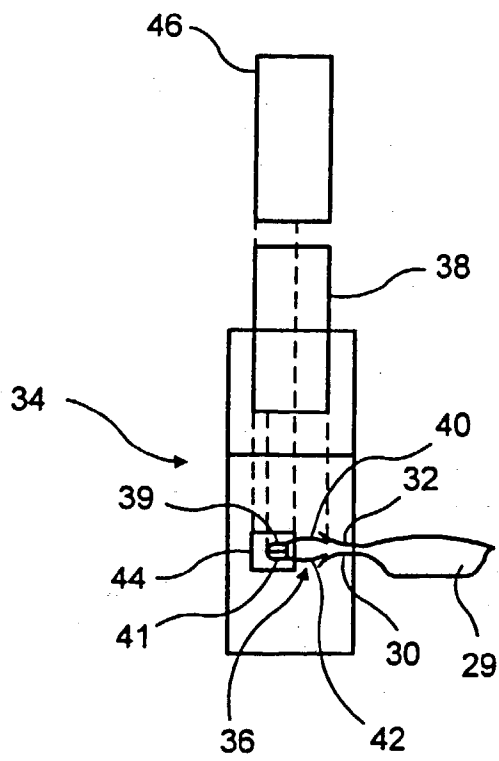


FIG. 3

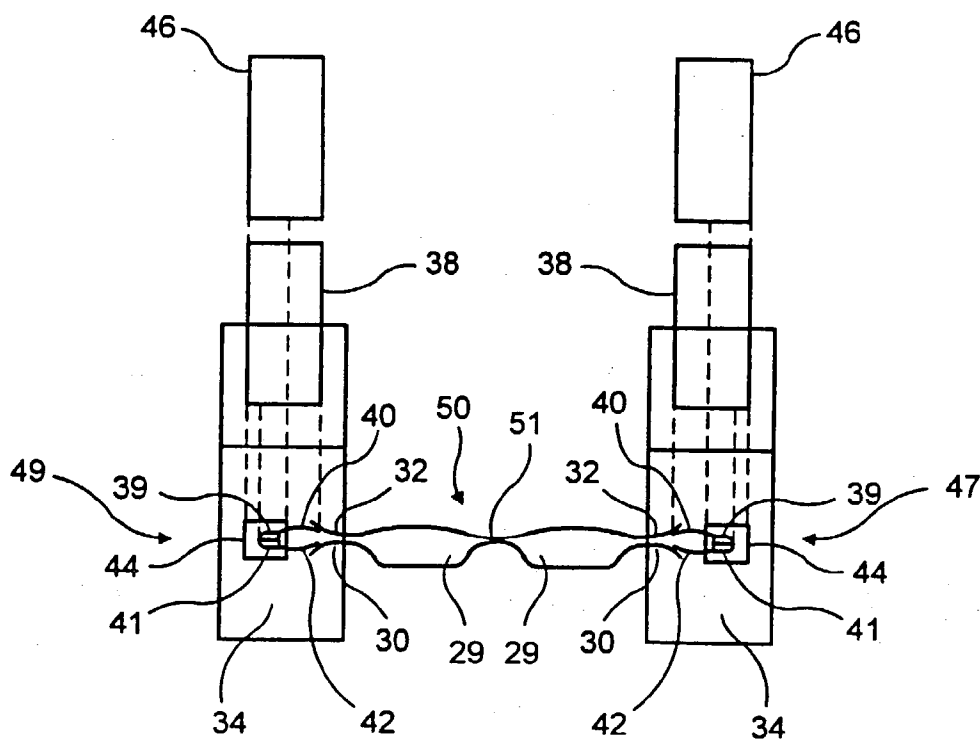


FIG. 4

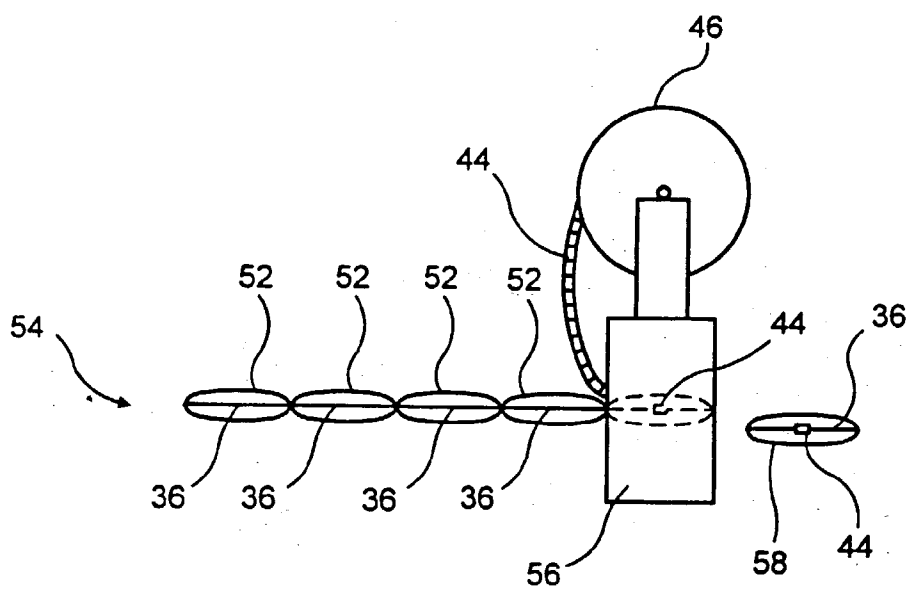


FIG. 5

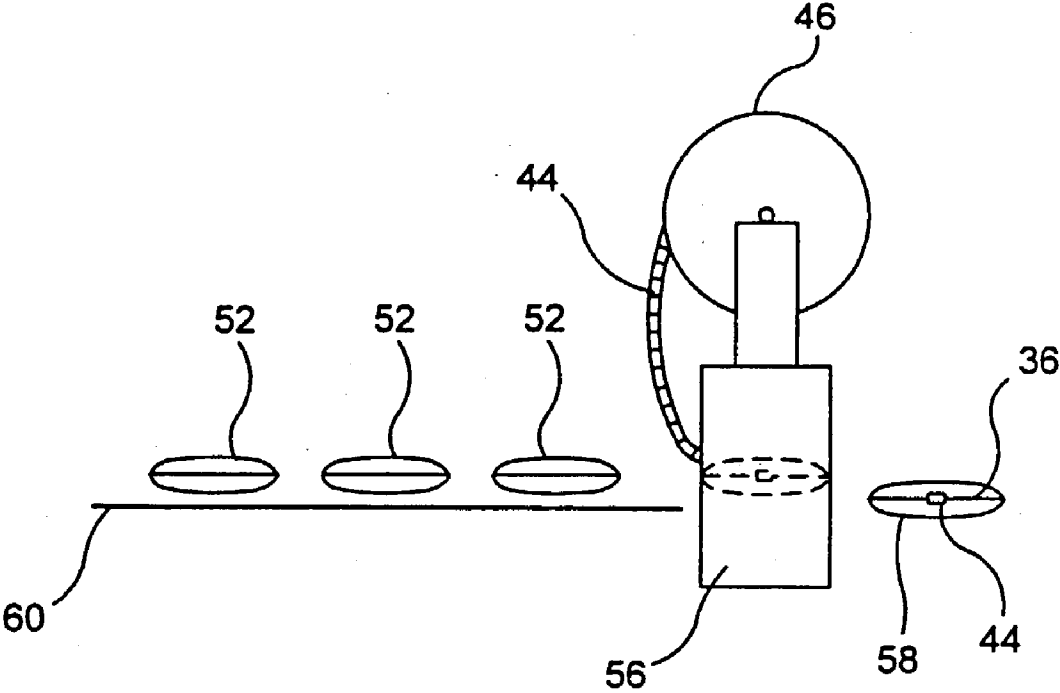


FIG. 6

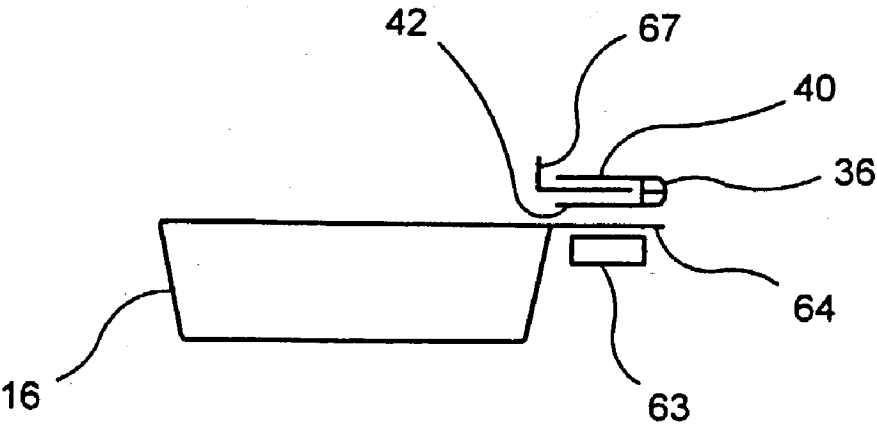


FIG. 7a

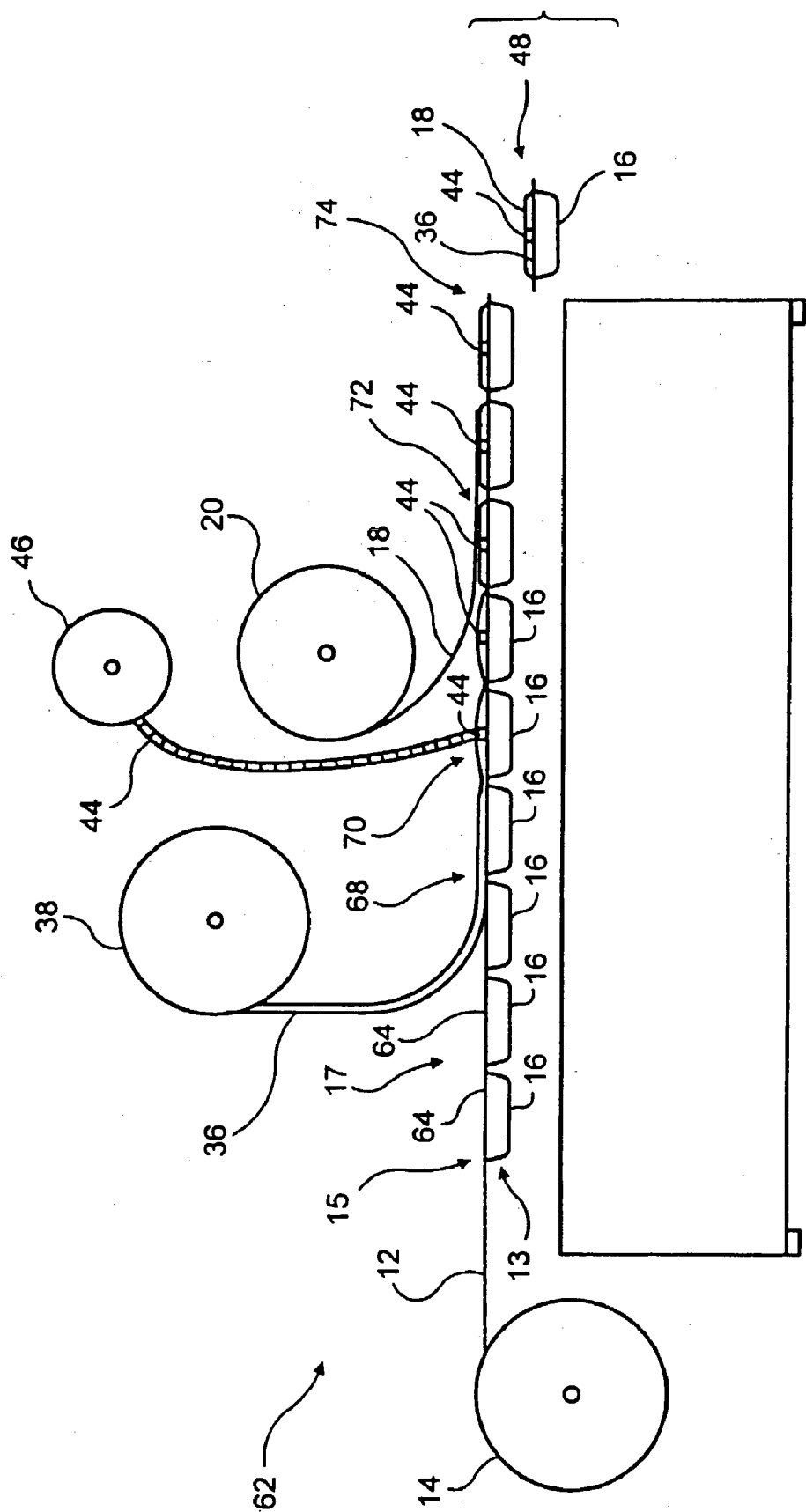


FIG. 7

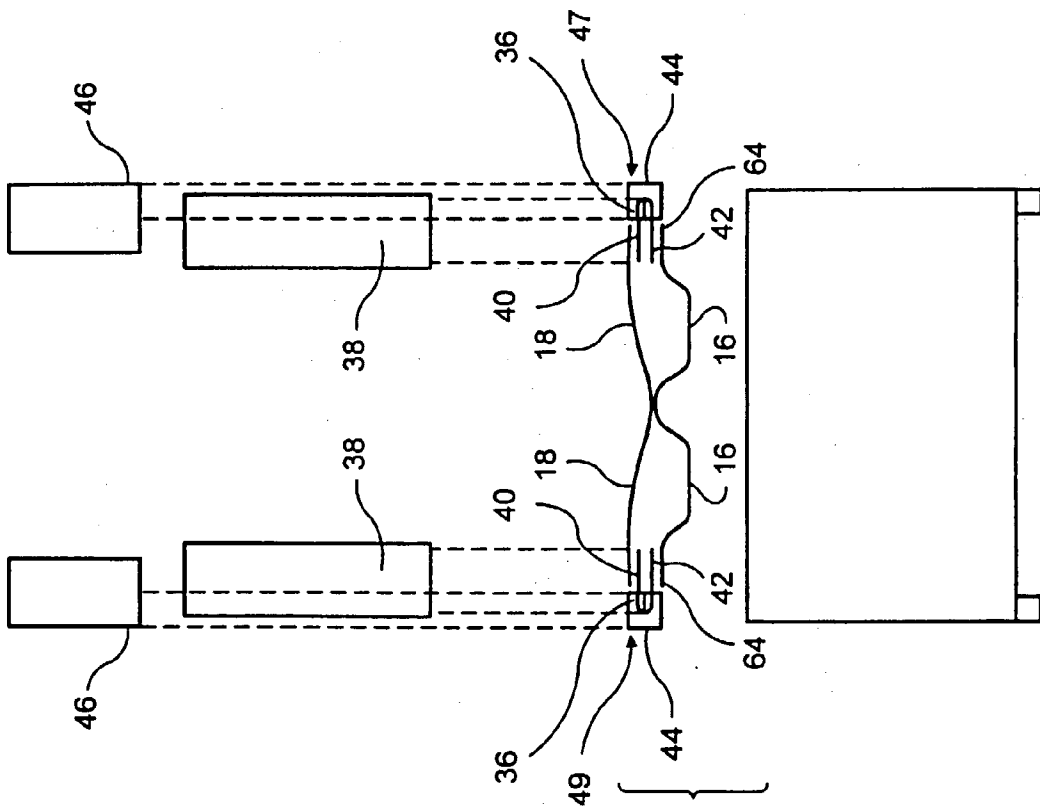


FIG. 8

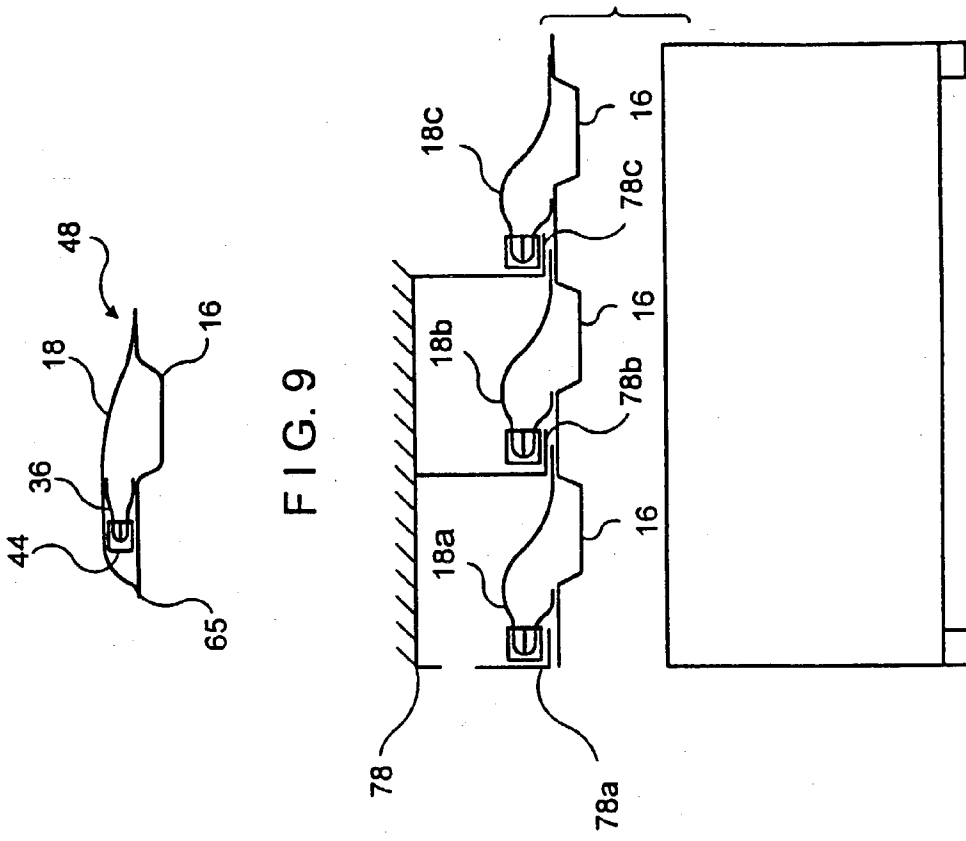


FIG. 11

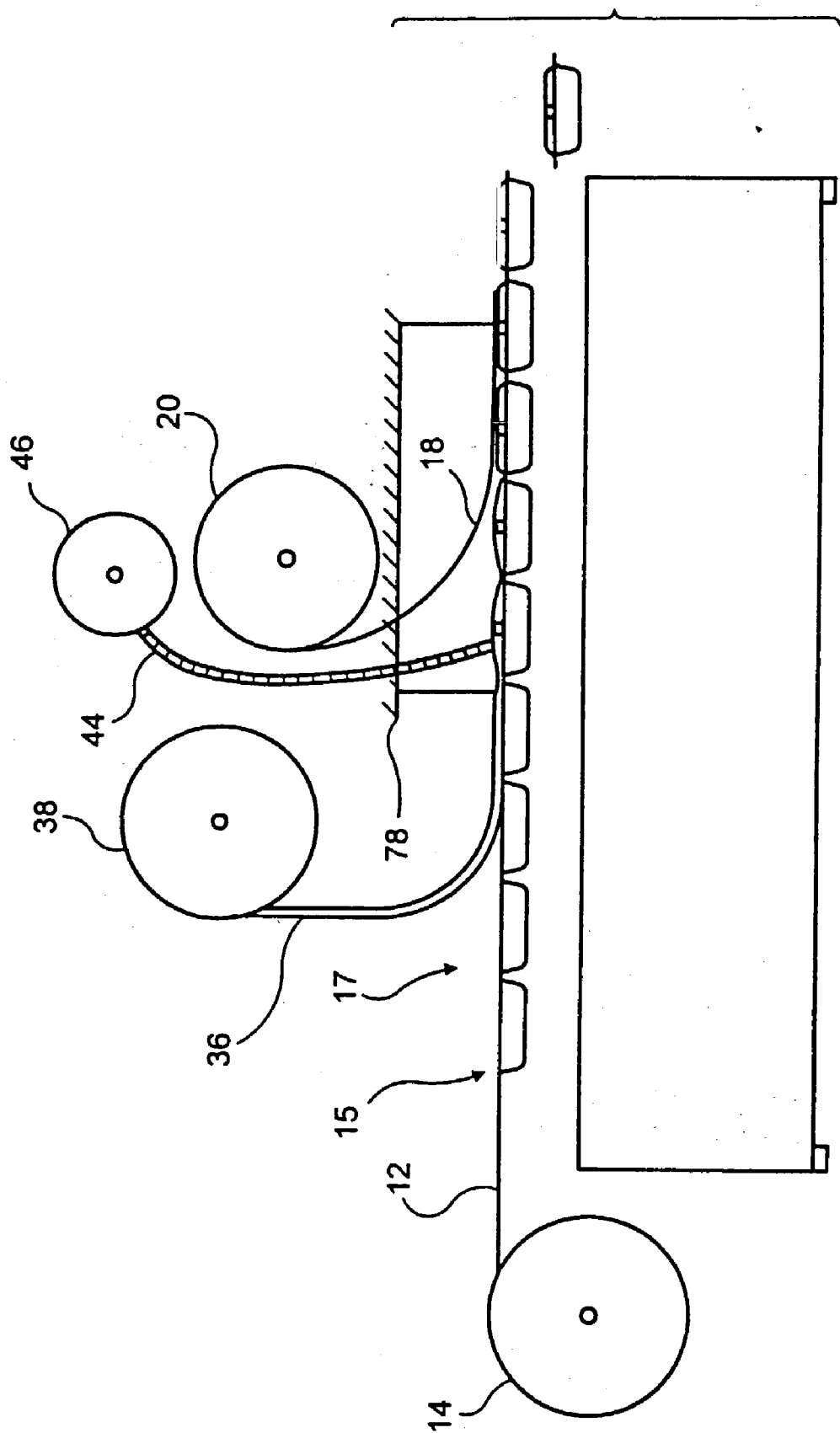
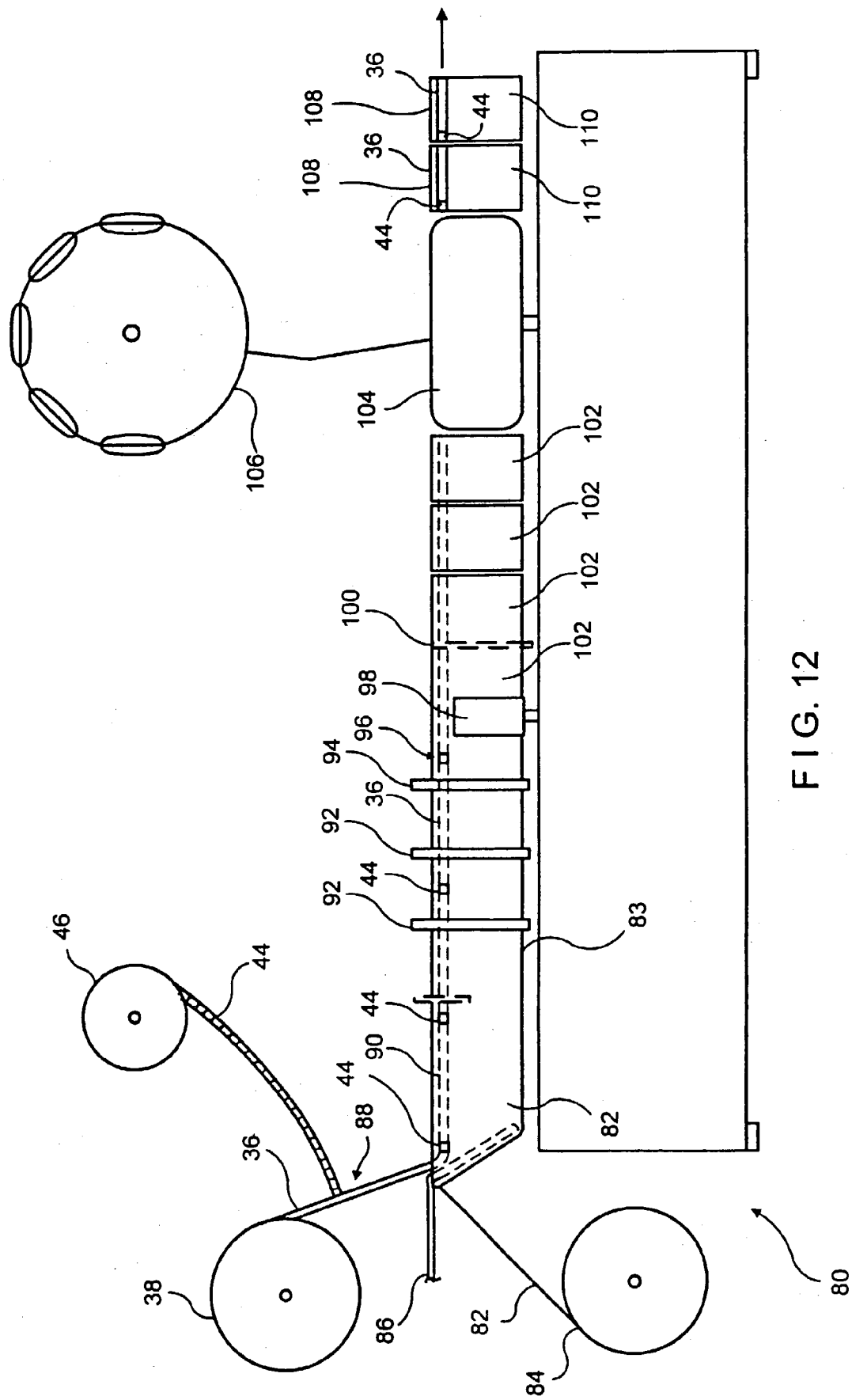
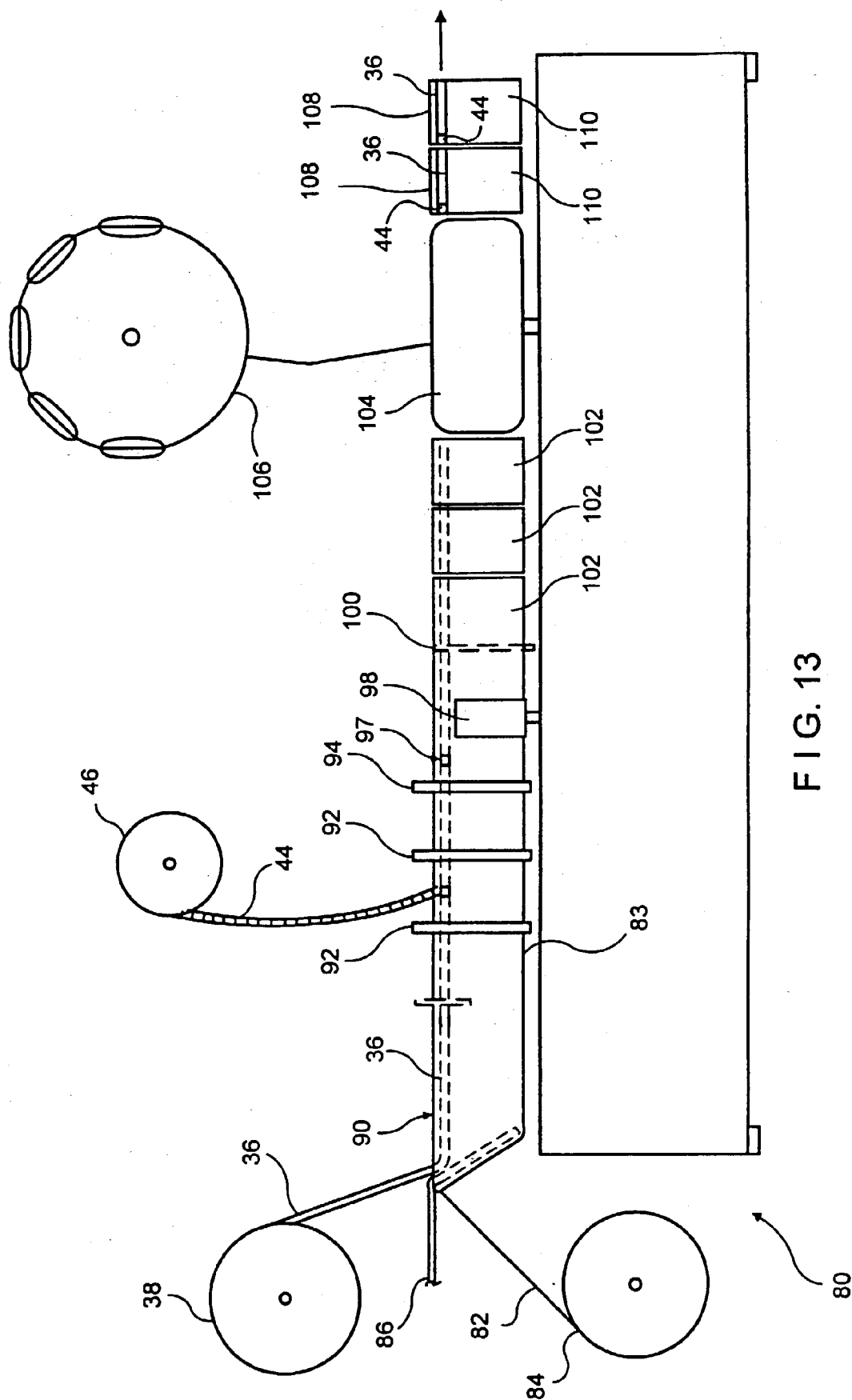
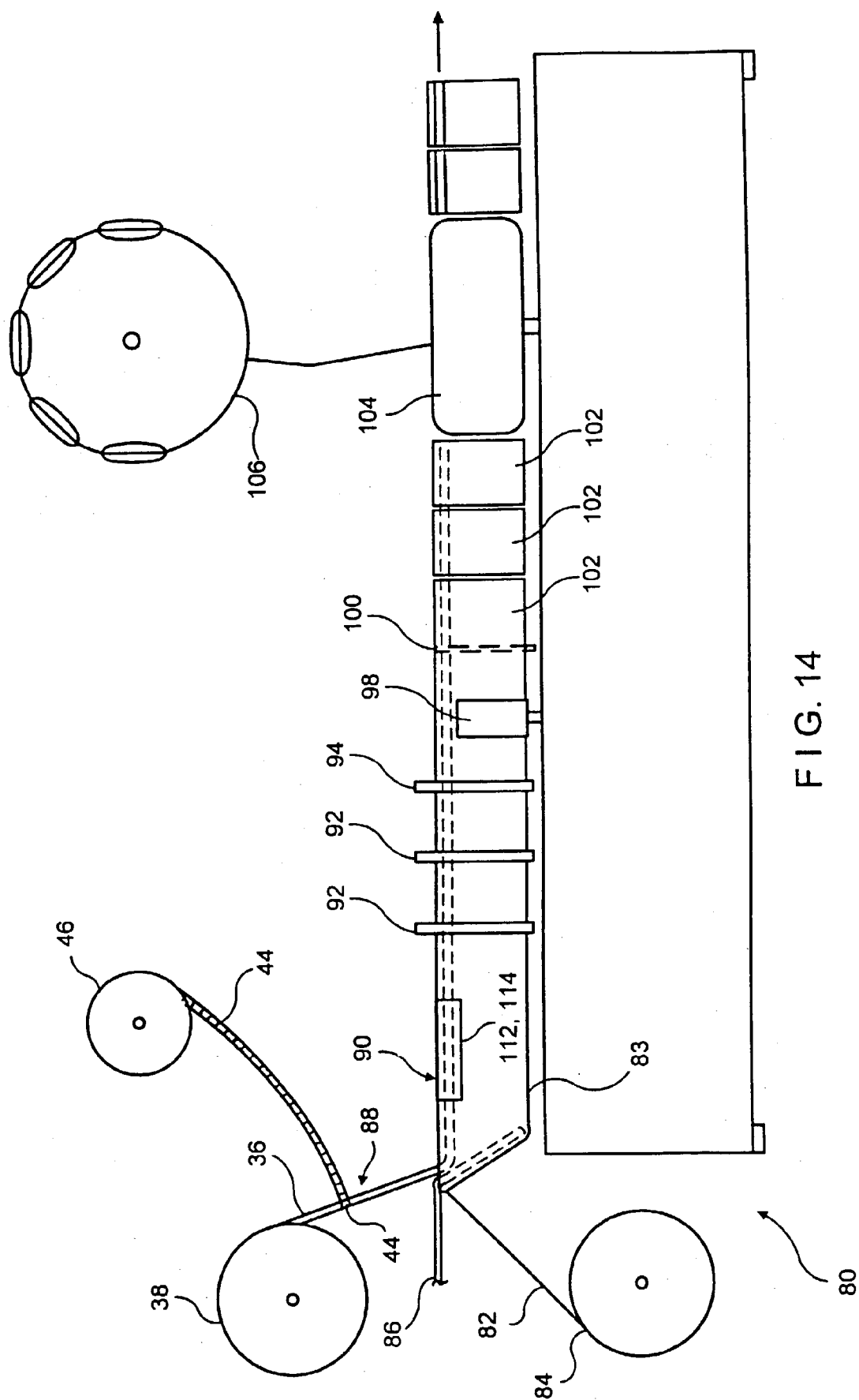


FIG. 10







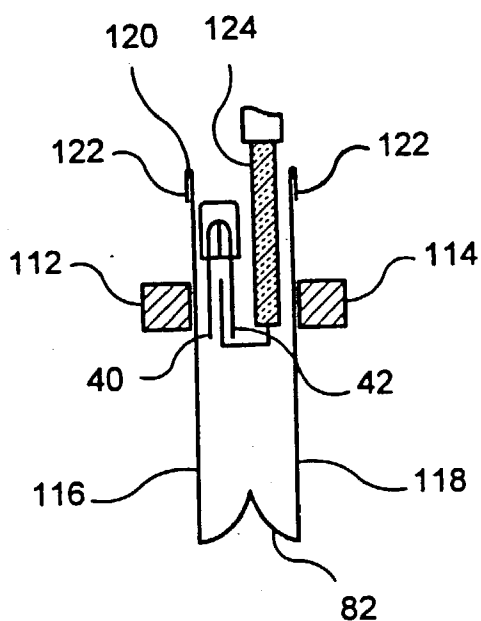


FIG. 15

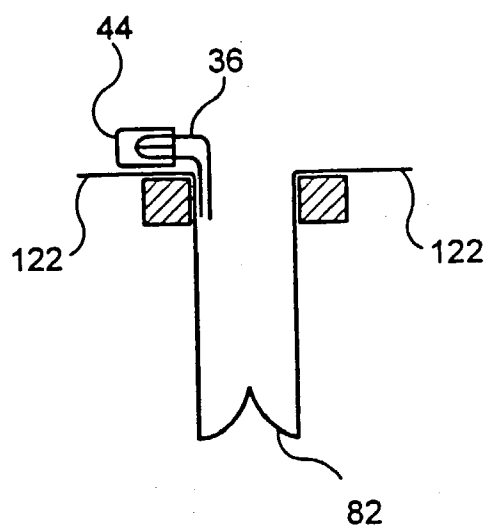


FIG. 16

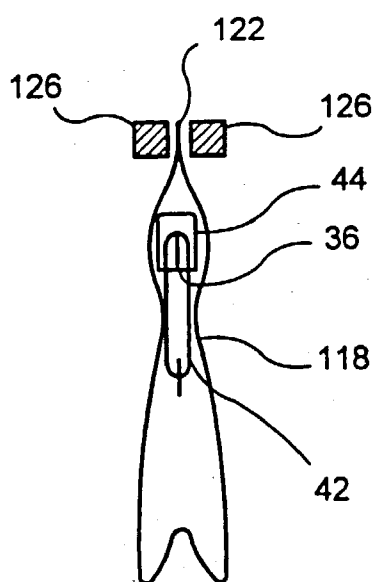


FIG. 17

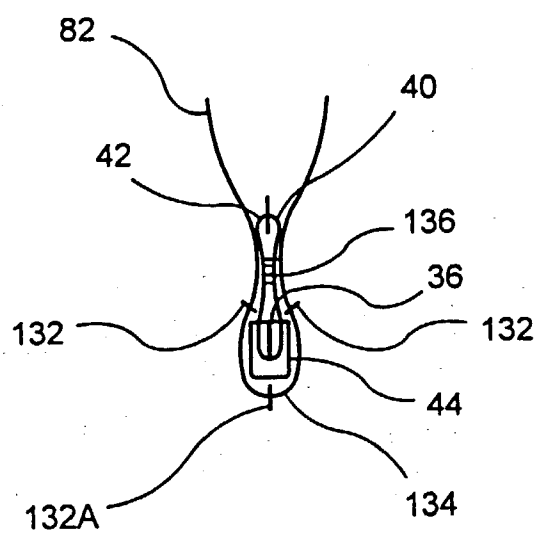


FIG. 19

METHODS OF MAKING SLIDE-ZIPPERED RECLOSABLE PACKAGES ON HORIZONTAL FORM-FILL-SEAL-MACHINES

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to the field of reclosable packaging. More particularly, the present invention relates to methods of making reclosable packages having slide zippers on horizontal form-fill-seal (HFFS) machines.

[0003] 2. Description of the Prior Art

[0004] Methods of making reclosable packages on various types of HFFS machines are well-known in the reclosable packaging art, such as that disclosed in U.S. Pat. No. 4,876,842. Slide zippers, i.e., plastic zippers opened and closed by a slider, are likewise well-known in the reclosable packaging art. Examples of several types of slide zippers can be found in U.S. Pat. Nos. 5,007,143, 5,008,971, 5,131,121 and 5,664,299.

[0005] The reclosable packaging art, however, is virtually, if not totally, silent as it relates to the manufacture of slide-zippered packages on HFFS machines. Because of the facility which is provided by slide zippers to consumers of reclosable packages and because of the large volume of reclosable packages made on HFFS machines today, it is highly desirable and advantageous to combine the two technologies so that slide-zippered reclosable packages can be made on HFFS machines.

SUMMARY OF THE INVENTION

[0006] Accordingly, the object of the present invention is to provide methods of making slide-zippered reclosable packages on HFFS machines.

[0007] According to a first embodiment of the present invention, a chain of packages is formed, filled and sealed on an HFFS machine or the like. A pair of opposing film extensions are provided on each package. As the chain of packages is indexed forwardly, a reclosable zipper is inserted between the film extensions of the leading package and sealed thereto. A slider is then inserted on to the reclosable zipper of the leading package and the completed leading package is cut from the chain.

[0008] According to a second embodiment of the present invention, packages having reclosable zippers are output from an HFFS machine or the like, either individually or in a chain. A slider is then inserted on to the zipper of each package in turn.

[0009] According to a third embodiment of the present invention, packages are formed, filled and sealed on an HFFS machine or the like. During package formation, a reclosable zipper is sealed to each package and then a slider is inserted on to the zipper.

[0010] According to a fourth embodiment of the present invention, packages are formed, filled and sealed on a horizontal form-vertical fill-seal (HFVS) machine or the like. During package formation, a reclosable zipper is sealed to each package and a slider is inserted on to each zipper, either before or after zipper sealing.

[0011] The present invention will now be described in detail, with frequent reference being made to the drawings identified below in which the same numerals represent the same elements.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] In the accompanying drawings:

[0013] **FIG. 1** shows packages being made on an HFFS machine in accordance with a first embodiment of the present invention;

[0014] **FIG. 2** is a perspective view of a package made on the HFFS machine of **FIG. 1** prior to attaching the zipper;

[0015] **FIG. 3** is a cross-sectional view of the HFFS machine of **FIG. 1** at the slider insertion point;

[0016] **FIG. 4** is a cross-sectional view of a first variation of the HFFS machine of **FIG. 1**;

[0017] **FIG. 5** shows sliders being inserted on a chain of packages in accordance with a second embodiment of the present invention;

[0018] **FIG. 6** shows sliders being inserted on to individual packages in accordance with a variation of the second embodiment of the present invention;

[0019] **FIG. 7** shows packages being made on an HFFS machine in accordance with a third embodiment of the present invention;

[0020] **FIG. 7a** is a cross-sectional view of the HFFS machine of **FIG. 7** at the first zipper sealing station;

[0021] **FIG. 8** is a cross-sectional view of the HFFS machine of **FIG. 7**;

[0022] **FIG. 9** is a cross-sectional view of a package made on the HFFS machine of **FIG. 7**;

[0023] **FIG. 10** shows packages being made on an HFFS machine in accordance with a variation of the third embodiment of the present invention;

[0024] **FIG. 11** is a cross-sectional view of packages being made on the HFFS machine of **FIG. 10**;

[0025] **FIG. 12** shows packages being made on an HFVS machine in accordance with a fourth embodiment of the present invention;

[0026] **FIG. 13** shows packages being made on an HFVS machine in accordance with a first variation of the fourth embodiment of the present invention;

[0027] **FIG. 14** shows packages being made on an HFVS machine in accordance with a second variation of the fourth embodiment of the present invention;

[0028] **FIG. 15** is a cross-sectional view of reclosable zipper being sealed to one package side in the HFVS machine of **FIG. 14**;

[0029] **FIG. 16** is a cross-sectional view of a package prior to being filled on the HFVS machine of **FIG. 14**;

[0030] **FIG. 17** is a cross-sectional view of a tamper evident sealed being placed on a package made on the HFVS machine of **FIG. 14**;

[0031] FIG. 18 shows packages being made on an HFVS machine in accordance with a third variation of the fourth embodiment of the present invention; and

[0032] FIG. 19 is a cross-sectional view of a package being formed on the HFVS machine of FIG. 18.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0033] In accordance with a first embodiment of the present invention, FIG. 1 shows how slide-zippered packages can be made on a typical thermoform HFFS machine 10. Forming film 12 is indexed off a coil 14 of the same in a package forming direction. Downstream of the forming film coil 14 at a forming station 15 the forming film 12 is thermoformed, using techniques well-known to those of ordinary skill in the reclosable packaging art, into a chain 13 of advancing box-like bottom portions or trays 16 of what will ultimately be completed packages. Product may then be loaded into the bottom portions 16 at a loading station 17 if desired. After optional product loading, top film 18 is indexed off a coil 20 of the same in the package forming direction, laid over the advancing bottom portions 16 and perimetrically sealed thereto at four locations 22, 24, 26, 28 at a sealing station 21 to form a sealed package 29, as shown in FIG. 2. The seal at the package opening 22 takes the form of a peel seal so that the consumer can easily gain access to the contents of the package.

[0034] As shown in FIG. 2, which is a perspective view of a sealed package 29 formed on the thermoform HFFS machine of FIG. 1 prior to zipper and slider insertion, the bottom portion 16 and top film 18 are each provided with film extensions 30, 32 which extend beyond the peel seal 22 on one side of the package 29. The film extensions 30, 32 are not sealed to each other and may readily be spread apart from each other.

[0035] After the top film 18 is sealed to the bottom portion 16 at the sealing station 21, the package chain 13 enters a zipper and slider insertion and attaching station 34. At this station 34 the film extensions 30, 32 of the leading package are spread apart from each other and interlocked reclosable zipper 36 supplied from a coil 38 of the same is fed between the film extensions 30, 32, as shown in FIG. 3, which is a cross-sectional view of the package chain and zipper and slider insertion and attaching station 34. The zipper is comprised of two interlocking closure elements 39, 41 and flanges 40, 42 extending therefrom which are sealed to the film extensions 30, 32, such as by a pair of seal bars (not shown). After the zipper 36 is thus sealed to the film extensions of the leading package, the zipper 36 is stomped at each end of the package by a stomping apparatus (not shown) to provide end stops for the slider and to ensure that the ends of the zipper 36 do not come apart during use.

[0036] A slider 44 is then removed from a coil 46 thereof and inserted on to the zipper 36 by a slider insertion apparatus (not shown). The slider and zipper are designed such that the slider will open the zipper as the slider is moved along the zipper in an opening direction towards an opening end of the zipper and close the zipper as the slider is moved along the zipper in a closing direction towards a closing end of the zipper. It is preferable during slider insertion that the slider be inserted at the closing end of the zipper since the zipper is initially interlocked. The slider will

thus be positioned for normal functioning. If the slider is inserted at a location other than at the closing end, it will be necessary to actuate the slider by moving it to the closing end, after which the slider will be in position for normal functioning. Such actuation may be done on the HFFS machine, or it may be done by the initial package user.

[0037] After slider insertion, the leading package is cross-cut from the remainder of the chain 13 by any one of many commonly known cutting apparatuses (not shown) to remove a completed package 48 having a slide zipper.

[0038] In practice, the package chain 13 may be a single chain as shown in FIG. 3, or, alternatively, may be a multiple chain, such as the double chain 50 shown in cross-section in FIG. 4. In the case of a double chain, where two packages are joined side by side, the process of making the packages is virtually identical to that described above, except that the zippers and sliders are attached to the opposite sides 47, 49 of the package chain simultaneously, as shown in FIG. 4, thus requiring two zipper and slider insertion and attaching stations 34. Additionally, a second cut is needed in the machine direction along the central axis 51 of the chain to remove the side-by-side packages from one another.

[0039] The foregoing embodiment of the present invention is not limited to practice on thermoform HFFS machines, but may be practiced on any type of package making machine where the packages are formed with film extensions 30, 32 of the type discussed above.

[0040] FIGS. 5 and 6 depict a second embodiment of the present invention. Zippered packages 52, either in a chain 54 as shown in FIG. 5 or individually as shown in FIG. 6, are output from an HFFS machine (not shown), or any other type of bag making machine. In the case of FIG. 5, the package chain 54 is indexed into a slider insertion station 56. At the slider insertion station 56 or at an earlier station, the ends of the zipper 36 on the leading package in the chain 54 are stomped as discussed above. Then, a slider 44 is removed from the slider coil 46 and inserted on to the zipper 36. Finally, a completed package 58 have a slide zipper is cross-cut from the chain by a cutting apparatus (not shown).

[0041] In the case of FIG. 6, the packages 52 are individual and not chained together. The individual packages 52 are transported one by one into the slider insertion station 56 by a conveyor belt 60 or the like, where the ends of the zipper 36 on the leading package are stomped (unless the stomping was done during package formation) and a slider 44 is removed from the slider coil 46 and inserted on to the zipper 36 to provide a completed slide-zippered package 58.

[0042] In accordance with a third embodiment of the present invention, FIG. 7 shows a thermoform HFFS machine 62 configured to make slide-zippered packages. As in FIG. 1, the forming film 12 is indexed off a coil 14 of the same. Downstream of the forming film coil 14 at a forming station 15 the forming film 12 is thermoformed into a chain 13 of box-like bottom portions or trays 16 of what will ultimately be completed packages. Product may then be loaded into the bottom portions 16 at the loading station 17 if desired. Each bottom portion 16 is provided with a lip 64 on one side thereof, as shown in FIG. 8, which is a cross-sectional view of the chain 13. After optional product loading, the reclosable zipper 36 is indexed off a coil 38 of

the same and laid over the lips **64** of the bottom portions **16**. The lower zipper flange **42** is then sealed to the lips **64** by a sealing mechanism, such as a heater bar **63**, at a sealing station **68**. The heater bar **63** is positioned below the lips **64**, as shown in **FIG. 7a**, which is a cross-sectional view of zipper attachment to the package lips. Also shown in **FIG. 7a** is an insulating and guide plate **67** positioned between the zipper flanges. The insulating and guide plate **67** provides a surface for the heater bar to react against and removes any danger of sealing through the zipper flanges, thereby eliminating the need for accurate heat control. The insulating and guide plate **67** also serves to guide and position the zipper onto the package lips to ensure accurate sealing.

[0043] A slider **44** is then removed from the slider coil **46** and inserted on to the zipper **36** of the instant bottom portion **16** at an insertion station **70**. After slider insertion, the ends of the zipper are stomped. Alternatively, the zipper ends could have been stomped together earlier, either on the machine or pre-stomped prior to winding on the supply coil, and the zipper indexed to the bottom portion. The top film **18** is then indexed off the top film coil **20**, laid over the formed bottoms **16** and the attached zipper **36** and sealed to the formed bottoms **16** and the upper flange **40** of the zipper **36** around the perimeter of the package at a second sealing station **72**. As discussed above, the seal at the mouth of the package may take the form of a peel seal to provide easy access to the contents of the package. Optionally, the top film **18**, if it is long enough, may be heat tacked to the bottom portion **16** over the zipper **36** to provide a tamper evident seal **65**, as shown in **FIG. 9**. In the final step, the completed packages **48** are cross-cut from the chain at a cutting station **74**. If a double chain is used, as shown in **FIG. 8**, then the side-by-side packages must also be cut from each other in the machine direction.

[0044] When making packages using multiple package chains, it is not necessary that the zippers and sliders be applied to opposite sides **47, 49** of the package chain, as shown in **FIGS. 4 and 8**. Rather, it is also possible to apply the zippers and sliders to the same sides of the packages. For example, a triple package chain is shown in **FIGS. 10 and 11**. In this case the top film **18** is pre-perforated so that it can be split into three sections and laid over each of the bottom portions **16**. This splitting is achieved by a separator assembly **78** having three L-shaped separator plates **78a, 78b, 78c**. As the top film **18** is indexed off its roll **20**, the vertical portions of the separator plates **78a, 78b, 78c** split the pre-perforated top film **18** into three portions **18a, 18b, 18c** and guide the three top film portions as they are laid over their corresponding bottom portions **16**. Additionally, the horizontal portions of the separator plates interact with the sealing mechanism to ensure that there is no seal through, eliminating the need for accurate heat control.

[0045] As indicated above, the present invention is not limited to thermoform HFFS machines, but may be practiced on any type of HFFS machine and on any type of bag making machine for that matter. **FIG. 12** shows how slide-zipped packages can be made on a horizontal form-vertical fill-seal machine (HFVS) **80** in accordance with a fourth embodiment of the present invention.

[0046] Package film **82** is paid off a roll **84** of the same. Downstream a pull roller **98** is provided for driving the film **82** through the machine. A folder plow **86** positioned down-

stream of the film roll **84** folds the package film **82** about a bottom crease **83** to form opposing package walls **116, 118**. Interlocked reclosable zipper **36** is then paid off a roll **38** of the same and fed between the advancing package walls. Sliders **44** are inserted on to the reclosable zipper **36** prior to the folder plow **86** at package width intervals at what will be the closing end of the zipper by a slider insertion mechanism at the slider insertion station **88**. The sliders **44** are supplied from the slider coil **46**.

[0047] At a first sealing station **90**, the zipper flanges **40, 42** are sealed to the opposing package walls. Then at stomping stations **92**, the ends of the zipper **36** for a given package are stomped. At a second sealing station **94**, the folded film and zipper are cross-sealed to form discrete packages.

[0048] Because the zippers are closed, it is necessary to open the zippers in order to fill the packages. This is achieved at a slider opening station **96**, where the slider is held in position as the zipper and film are advanced when the pull rollers **98** are activated. As the zipper moves through the slider, it is opened. Alternatively, the slider itself may be moved. Then, at a cutting station **100** the individual packages **102** are cut from one another. The separated packages **102** are then taken to the filling station **104** where they are filled. Filling may occur by means of a filling turret **106** or the packages may be filled in-line, both of which techniques are well-known to those of ordinary skill in the art. After a package is filled, the slider **44** is moved backed to the closing end of the zipper. Finally, a tamper evident **108** seal may optionally be provided above the zipper **36**. Completed slide-zipped packages **110** are then output from the machine.

[0049] A first variation of the fourth embodiment is shown in **FIG. 13**. As is clear from **FIG. 13**, the sliders are attached downstream of the folder plow **86**, rather than upstream of the folder plow **86**. Additionally, the sliders **44** are attached to the zippers **36** at their opening ends, rather than at their closing ends as above. Thus, in order to open the zippers for package filling the zippers must be forced open from the outside of the packages, rather than by using the sliders. This opening action is carried out at an opening station **97** by a suitable mechanism provided for the specific zipper construction. After filling at the filling station **104**, the slider is moved to the closing end of the zipper.

[0050] A second variation of the fourth embodiment of the present invention is shown in **FIG. 14**. Under certain circumstances it may be desirable to eliminate the step of opening the zipper for filling. This can be done by sealing one zipper flange to one side of the folded film at the first sealing station **90** prior to filling, as shown in **FIG. 15**, rather than sealing both flanges to the film as done previously.

[0051] As shown in **FIG. 15**, one flange **40** of the zipper is sealed to one wall **116** of the folded film **82** a distance below the top **120**. The film **82** protrudes above the zipper to form a pair of opposing ears **122**. To ensure that the zipper flanges **40, 42** do not seal to each other or the other side of the package at the first sealing station **90**, a J-shaped insulator plate **124** is inserted between the zipper flanges **40, 42** and between the unsealed zipper flange **42** and the other package wall **118**, as shown in **FIG. 15**. In addition, one of the seal bars **112** is kept hot and the other **114** is deactivated. Then, at the second sealing station **94**, the packages are

cross-sealed from the bottom of the film **92** up to but not including the zipper. When it comes time to fill the bag at the filling station **104**, the zipper is bent to one side, as shown in **FIG. 16**. In this manner, filling may proceed unobstructed, and there is no danger of contaminating the zipper. After filling, the unsealed zipper flange **42** is sealed to the other side of the package and the ears **122** are sealed to each other by a pair of seal bars **126** with a perforation seal and a peel seal above the zipper **36**, as shown in **FIG. 17**. At the same time the ends of the zipper are cross-sealed together and end stops for the slider are created. The above indicated zipper cross-seals extend below the zipper flanges into the package side seals, but not above and beyond the zipper profiles.

[0052] A third variation of the fourth embodiment of the present invention is shown in **FIG. 18**. In this variation, the zipper **36** and slider **44** are attached to the bottom **128** of the package, rather than at the top **120**. As the film **82** is fed over the folder plow **86**, a perforator **130** perforates the film **82** below the slider **44** to form a pair of perforations **132** (alternatively, a single perforation **132a** may be provided). The zipper is then sealed to the bottom of the package by sealing the zipper flanges to the film beyond the perforation lines, as shown in **FIG. 19**. A peel seal **136** may be provided between the zipper flanges in order to maintain the integrity of the packages.

[0053] The packages are completed as discussed above, except that they are filled from the opposing end to which the zipper has been attached. Further, if a bottom gusset is required a V shaped film can be introduced between the package walls **116** and **118** and sealed into place. During use, the packages are inverted so that the zipper and slider are at the top and the perforated portion **134** is torn away from the package to gain access to the slider.

[0054] Thus, in the foregoing manner the object of the present invention is achieved. Modifications to the above would be obvious to those of ordinary skill in the art, but would not bring the invention so modified beyond the scope of the appended claims.

We claim:

1. A method of making reclosable packages, said method comprising the steps of:

- feeding a supply of forming film in a package forming direction;
- forming said forming film into a chain of bottom package portions and advancing said chain in said package forming direction;
- feeding a supply of top film in said package forming direction;
- laying said top film on to said chain of bottom package portions;
- sealing said top film to said chain of bottom package portions to form a chain of packages, each of said packages including a pair of opposing film extensions on one side thereof which are not sealed to each other;
- feeding a supply of interlocked reclosable zipper between the film extensions of said packages;
- sealing a length of said reclosable zipper to the film extensions of each of said packages;
- providing a supply of sliders, each of said sliders being insertable on to said reclosable zipper and adapted to

open and close said reclosable zipper as said slider is moved along said zipper in opening and closing directions, respectively; and

for each of said packages, removing a slider from said slider supply and inserting said slider on to said reclosable zipper length.

2. The method according to claim 1 including the step of separating the film extensions of said packages prior to feeding said reclosable zipper therebetween.

3. The method according to claim 1 including the step of stamping the ends of said reclosable zipper lengths.

4. The method according to claim 1 including the step of cutting each of said packages from said package chain.

5. The method according to claim 1 wherein each of said packages includes a peel seal adjacent its reclosable zipper.

6. A method of making packages having slide zippers, said method comprising the steps of:

providing a supply of packages, each of said packages having a reclosable zipper;

providing a supply of sliders, each of said sliders being insertable on to said reclosable zipper and adapted to open and close said reclosable zipper as said slider is moved along said reclosable zipper in opening and closing directions, respectively; and

for each of said packages, removing a slider from said slider supply and inserting said slider on to said reclosable zipper.

7. The method according to claim 6 wherein said packages are connected together in a chain.

8. The method according to claim 7 including the step of cutting each of said packages from said package chain.

9. A method of making reclosable packages said method comprising the steps of:

feeding a supply of forming film in a package forming direction;

forming said forming film into a chain of bottom package portions, each of said bottom package portions having a lip on one side thereof;

advancing said chain of bottom package portions in said package forming direction;

feeding a supply of interlocked reclosable zipper in said package forming direction;

sealing a length of said reclosable zipper to the lip of each of said bottom portions;

providing a supply of sliders, each of said sliders being insertable on to said reclosable zipper and adapted to open and close said reclosable zipper as said slider is moved along said zipper in opening and closing directions, respectively;

for each of said bottom portions, removing a slider from said slider supply and inserting said slider on to said reclosable zipper length;

feeding a supply of top film in said package forming direction; and

sealing said top film to each bottom package portion and its corresponding length of reclosable zipper to form a chain of packages, each of said packages having a length of reclosable zipper and a slider.

10. The method according to claim 9 including the step of stamping the ends of said reclosable zipper lengths.

11. The method according to claim 9 including the step of cutting each of said packages from said package chain.

12. The method according to claim 9 wherein each of said packages includes a peel seal adjacent its reclosable zipper.

13. The method according to claim 9 wherein halves of said reclosable zipper are insulated from one another during said sealing steps.

14. The method according to claim 9 wherein said chain of bottom package portions is comprised of at least two parallel joined chains and wherein said top film is separated along pre-applied perforations and sealed to each of said parallel chains.

15. A method of making reclosable packages, said method comprising the steps of:

feeding a supply of package film in a package forming direction;

folding said package film about a bottom crease to form opposing package walls, said opposing package walls advancing in said package forming direction;

feeding a supply of interlocked reclosable zipper between said opposing package walls;

sealing said reclosable zipper to said opposing package walls;

providing a supply of sliders, each of said sliders being insertable on to said reclosable zipper and adapted to open and close said reclosable zipper as said slider is moved along said reclosable zipper in opening and closing directions, respectively;

removing sliders from said slider supply and inserting said sliders on to said reclosable zipper; and

cross-sealing said folded film at package-width intervals to form a chain of packages, each of said packages having a reclosable zipper and a slider.

16. The method according to claim 15 wherein said sliders are inserted on to said reclosable zipper prior to said reclosable zipper being fed between said opposing package walls.

17. The method according to claim 15 wherein said sliders are inserted on to said reclosable zipper after said zipper is fed between said opposing package walls.

18. The method according to claim 16 wherein said reclosable zipper is sealed to said opposing package walls adjacent said bottom crease.

19. The method according to claim 15 including the additional steps of:

opening the reclosable zipper of each package;

filling each package; and

closing the reclosable zipper of each package.

20. The method according to claim 19 wherein the reclosable zipper of each package is opened by moving its slider from a closing end of the reclosable zipper to an opening end of the reclosable zipper.

21. The method according to claim 19 wherein the reclosable zipper of each package is opened by holding its slider in place as the package film is advanced in the package forming direction.

22. The method according to claim 19 wherein the reclosable zipper of each package is closed by moving its slider from an opening end of the reclosable zipper to a closing end of the reclosable zipper.

23. The method according to claim 19 wherein the reclosable zipper of each package is opened by means other than the slider.

24. The method according to claim 15 including the step of sealing each package above its reclosable zipper to form a tamper evident seal.

25. The method according to claim 15 including the step of cutting each of said packages from said chain of packages.

26. The method according to claim 15 wherein the ends of the reclosable zipper of each package are cross-sealed.

27. The method according to claim 15 wherein said reclosable zipper supply is stomped at package width intervals.

28. A method of making reclosable packages, said method comprising the steps of:

feeding a supply of package film in a package forming direction;

folding said package film about a bottom crease to form opposing package walls, said opposing package walls advancing in said package forming direction;

feeding a supply of interlocked reclosable zipper between said opposing package walls;

sealing one-half of said reclosable zipper to a first of said package walls;

providing a supply of sliders, each of said sliders being insertable on to said reclosable zipper and adapted to open and close said zipper as said slider is moving along said zipper in opening and closing directions, respectively;

removing sliders from said slider supply and inserting said sliders on to said reclosable zipper;

cross-sealing said folded film at package-width intervals to form a chain of packages, each of said packages having a reclosable zipper and a slider;

filling each of said packages; and

sealing the unsealed half of the reclosable zipper of each of said packages to the other package wall.

29. The method according to claim 28 including the step of bending the reclosable zipper of each of said packages toward the package wall to which it is sealed prior to filling said package.

30. The method according to claim 28 wherein during the sealing of said one-half of said reclosable zipper to said first package wall said reclosable zipper is insulated from the other package wall.

31. The method according to claim 28 wherein during sealing of said one-half of said reclosable zipper to said first package wall said one-half of said reclosable zipper is at least partially insulated from the other half of said reclosable zipper.

32. The method according to claim 28 including the step of cross-sealing the ends of the reclosable zipper of each package.

33. The method according to claim 28 wherein said zipper cross-seals extend into said package cross-seals.

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