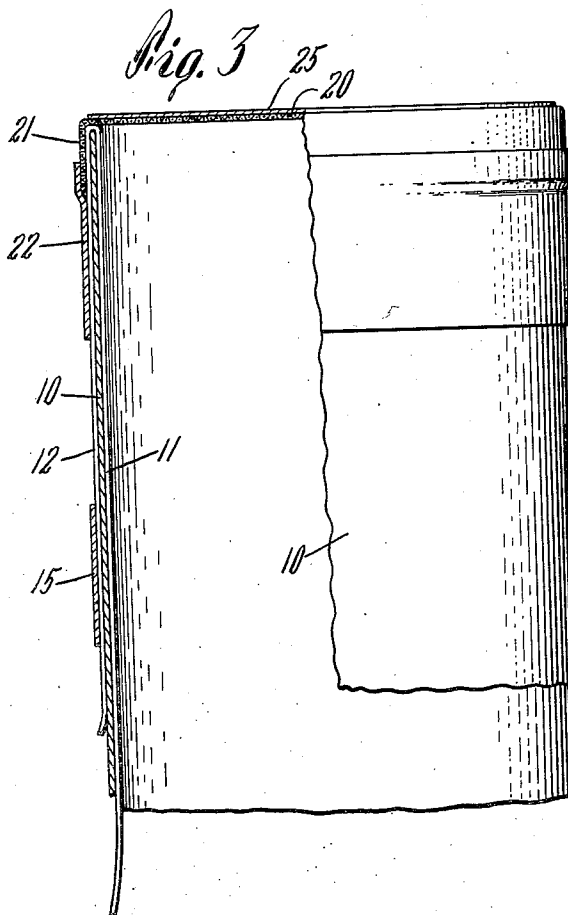
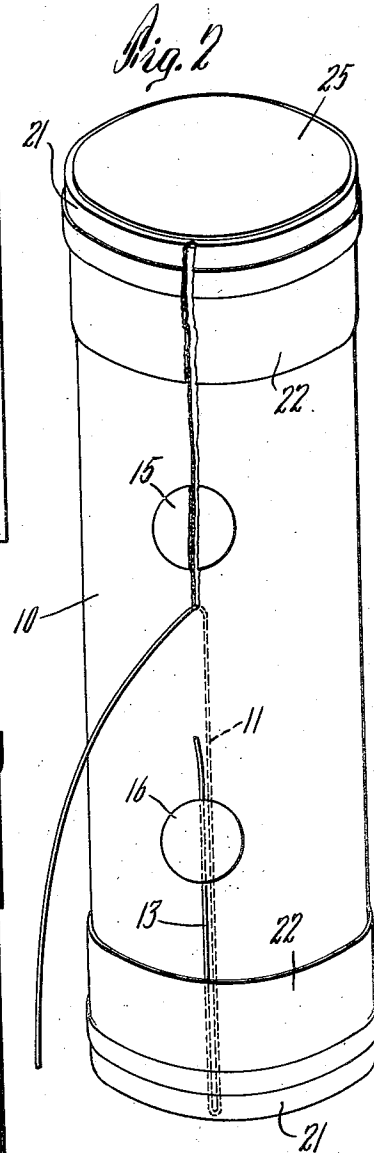
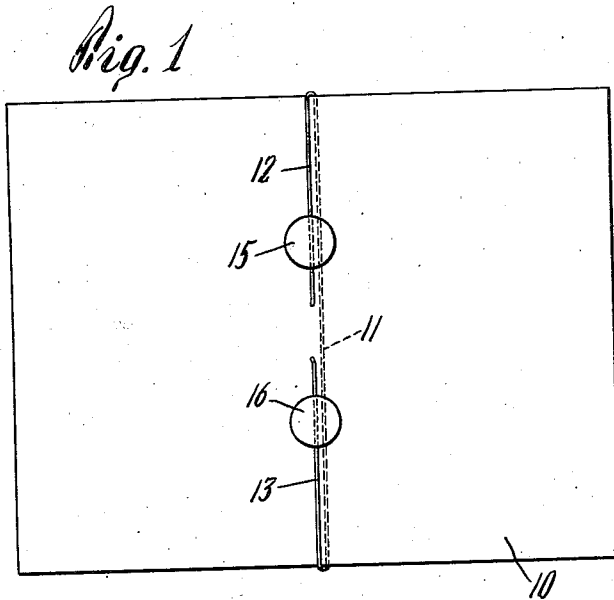


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METHOD OF WRAPPING PACKAGES
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METHOD OF WRAPPING PACKAGES

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11 Claims. (Cl. 229—51)

This invention relates to a method of wrapping packages in such a manner as to facilitate the removal of the wrapper without injuring the contents of the package. While capable of some-
5 what general application, the invention relates especially to elongated packages, and more particularly to convolute rolls of roofing material commonly known as "roll roofing".

Material of this kind is customarily manufac-
10 tured in sheets of indefinite length. As the finished product is fed from the machine on which it is made, it is rolled up on a mandrel in successive convolutions so as to form a cylindrical package for convenient shipment or storage.
15 When a desired length of roofing material has been rolled up, the sheet is cut and the newly formed end is started on another mandrel. The completed roll of roofing material is wrapped in a wrapper of suitable material such as kraft paper,
20 this wrapper preferably having a length substantially equal to that of the roll and a width greater than the circumference of the roll so that when the roll is wrapped in the sheet, the ends of the roll are exposed but the entire side surface of the roll is covered by the paper, por-
25 tions of the paper wrapper overlapping each other so that they can be stuck together by a suitable adhesive.

The roll is then taken to a heading station
30 where header elements of muslin or other suitable flexible material of sufficient strength or toughness are applied to cover each end of the roll. Each header element is made of a size to fit an end surface of the roll, with a marginal portion
35 which can be brought down against the side surface of the roll adjacent to the end. The header elements are secured in place by paste or other suitable adhesive. To keep the marginal por-
40 tions of the header elements in place, bands of paper may be pasted circumferentially around the roll adjacent to the ends thereof so as to cover the edges of the header elements and hold them snugly against the side of the package. This
45 makes a strong, tight package in which the roofing material is well protected.

In opening such a package the roofing ma-
terial is liable to suffer damage, since the paper
wrapper is so tightly mounted on the side face
of the roll that it is difficult to remove the same
50 without cutting or otherwise injuring a portion of the roofing itself. To avoid such injury to the roofing and to facilitate the opening of packages of this kind, I have provided a rip cord or string
55 to lie against the inner face of the wrapper, that is, between the paper wrapper and the outer sur-

face of the roll of roofing within the wrapper. The ends of the string are releasably secured to the outside of the wrapper so as to be easily accessible. Such an opening device for a
5 wrapper is described and claimed in my co- pending application Serial No. 595,096, filed February 25, 1932, pursuant to which application Patent No. 1,901,356 was issued on March 14, 1933.

According to the present invention a novel 10 method of assembling such a wrapper and applying it to a roll is provided, this method serving to speed up the wrapping operation and also resulting in a better finished package.

For a more complete understanding of this in-
15 vention, reference may be had to the description thereof which follows and to the drawing, of which

Figure 1 is a plan view of a wrapper to which
20 a string or similar element has been affixed.

Figure 2 is a perspective view of a cylindrical package of rolled roofing or the like, showing how
the rip element operates.

Figure 3 is a fragmentary elevation of a pack-
25 age of rolled material, portions being broken away to show the various elements to receive a covering for the package.

According to the present invention, a wrapper
is prepared for application to a package of rolled
30 roofing or the like, by providing a sheet 10 of kraft paper or other flexible sheet material of suitable characteristics, this sheet having a length equal to that of the package to be wrapped, and a width preferably greater than the circumfer-
35 ence of the package. A rip element such as a section of cord, string, wire, tape or other equivalent material is applied to the wrapping 10. The central portion 11 of this rip element is extended
40 lengthwise of the sheet, the end portions 12 and 13 of the rip element being turned back over the upper and lower edges of the sheet so as to lie on the opposite face, this opposite face being the
45 upper face of the sheet illustrated in Figure 1. The middle portion 11 of the cord may be stuck to the face of the sheet by a suitable adhesive, if desired, but this is not essential. The end portions 12 and 13 are releasably secured to the op-
50 posite face of the sheet as by suitable seals 15 and 16 which are fixed to the sheet in such a manner as to cover portions of the cord adjacent to the
55 free ends thereof. These seals are preferably of relatively thin paper so that they are easily broken when the free ends of the cord are pulled. The seals themselves may bear advertising mat-

ter or legends giving directions for manipulating the string or cord to open the package.

The wrapper 10 with the cord and seals thus attached is ready for application to a package such as a roll of roofing material. The roll is wrapped in the wrapper 10, the overlapping portions of the wrapper being stuck together with a suitable adhesive. If the side edge portions of the wrapper do not overlap, they may be secured by an adhesive strip overlapping both edge portions. To the ends of the roll are then applied header elements 20, these being preferably circular pieces of muslin or other suitable material adapted to cover the ends of the roll. The muslin is larger than the end area of the roll so the marginal portions turn down and lie against the side face of the roll. These turned-down marginal portions are pasted to the paper wrapper on the roll to secure the cap or header element in place. These marginal portions are further secured by paper bands 22 which encircle the roll adjacent to the ends thereof and overlapping the marginal portions of the caps 20, being secured thereto by suitable adhesive. If desired, paper labels 25 may be pasted on the capped ends of the roll, but these are not necessary. The end labels 25, the bands 22, and the wrapper 10 may all carry suitable advertising or other printed matter, if desired.

By applying the cord or string 11 to the wrapper 10 and securing the end portions by seals 15 and 16 as a separate operation prior to the application of the wrapper to a roll of material so that the operator who applies the wrappers always has at hand a supply of prepared wrappers ready for application to rolls, the operator is not hurried as during the wrapping operation which must keep up with the rate of production of the roofing machine, and the cord and seals can be easily placed in proper position so as not to interfere with any advertising matter which may be on the wrapper. As the seals may thus be properly placed, the finished package presents a far more orderly and pleasing appearance than when the seals are hastily applied as during the process of wrapping the package.

It is also advantageous to make up these wrappers with cords attached a sufficient time before the using of the wrapper to enable the adhesive on the seals to dry thoroughly. After the header elements 20 and the bands 22 have been pasted on, the packages are customarily put into a drying oven to dry the paste. If the adhesive on the seals has not previously been dried thoroughly, the heat tends to wrinkle the seals, this making them more liable to injury and also making the reading matter thereon less legible. By making up sheets as illustrated in Figure 1 prior to applying them to the rolls or packages of material, there is no delay in the application of the corded wrappers to rolls of roofing material formed on the mandrels of a machine for making such material, and the seals have ample time to become thoroughly stuck to the outer face of the wrapper so as not to be loosened or wrinkled during the step of drying the paste applied for securing the header elements 20 and the end bands 22.

It is evident that the invention herein described is capable of various modifications without departing from the spirit or scope thereof as defined by the following claims.

I claim:

1. The method of wrapping a roll of convoluted sheet material which comprises laying a string along one face of a rendible wrapper with oppo-

site ends of the string extending beyond the respective ends of the wrapper, folding said extending ends of the string over onto the opposite face of the wrapper, securing said folded portions of the string to said outer face, thereafter applying said wrapper to the peripheral surface of the convoluted roll with said first named face of the wrapper towards said surface and with said string extending substantially axially of the convoluted roll, and securing the wrapper around said surface, whereby to produce a package whereof the wrapper may be subsequently torn therefrom by exerting a pull on said extending ends of the string.

2. A method of wrapping a roll of convoluted sheet material or similar package, which comprises preparing a wrapper having a length substantially equal to that of the roll and a width greater than the circumference of the roll, laying a section of string or the like extended on said wrapper, passing the end portions of the string around the end edges of the wrapper to lie against the opposite face thereof, releasably securing the end portions of said string to said opposite face of the wrapper at points spaced from the ends thereof, thereafter wrapping said wrapper about the side surface of a roll with the mid-portion of the string between the wrapper and the roll, and securing together the overlapping portions of said wrapper.

3. A method of wrapping a roll of convoluted sheet material or similar package, which comprises preparing a wrapper having a length substantially equal to that of the roll and a width greater than the circumference of the roll, laying a section of string or the like extended on said wrapper, passing the end portions of the string around the end edges of the wrapper to lie against the opposite face thereof, releasably securing the end portions of said string to said opposite face of the wrapper at points spaced from the ends thereof, thereafter wrapping said wrapper about the side surface of a roll with the mid-portion of the string between the wrapper and the roll, securing together the overlapping portions of said wrapper, heading the ends of the package with headers of flexible material covering the end surfaces and extending over the end edges to lap the end portions of the side surface of the roll, and applying bands to the end portions of the roll to overlap the portions of the headers engaging the side surface of the roll.

4. A method of wrapping a roll of material, which comprises preparing a wrapper having a length substantially equal to that of the roll and a width greater than the circumference of the roll, extending a section of string or the like lengthwise across the wrapper and passing the end portions of the string back over the end edges of the wrapper to lie against the opposite face thereof, affixing a pair of stickers to said opposite face to cover portions of said string adjacent to the face ends thereof, thereafter wrapping said wrapper about said roll with said opposite face outermost, and securing together the overlapping portions of said wrapper.

5. A method of wrapping a package, which comprises preparing a wrapper having a length substantially equal to that of the package, laying a section of string or the like lengthwise on the wrapper, passing the end portions of the string back over the end edges of the wrapper to lie against the opposite face of the wrapper, releasably securing the end portions of the string to said opposite face, thereafter wrapping said

wrapper about said package with said opposite face outermost, and securing said wrapper on the package.

5 6. A method of wrapping a package, which comprises preparing a wrapper having a length substantially equal to that of the package, laying a section of string or the like lengthwise on the wrapper, passing the end portions of the string back over the end edges of the wrapper to lie
10 against the opposite face of the wrapper, releasably securing the end portions of the string to said opposite face, thereafter wrapping said wrapper about said package with said opposite face outermost, securing said wrapper on the
15 package, and securing protective headers over the end portions of said package.

7. A method of preparing a wrapper for a roll of sheet material, which comprises applying a section of string or the like to one face of the wrapper, passing the end portions of said string
20 back over the end edges of the wrapper to lie against the opposite face thereof, and securing said end portions to said opposite face with stickers prior to the application of the wrapper
25 to a package.

8. A method of wrapping a roll of convoluted sheet roofing, which comprises preparing a sheet of paper having a length substantially equal to that of the roll and a width greater than the
30 circumference of the roll, extending a string or the like lengthwise across the paper sheet, passing the end portions of the string back over the end edges of the paper sheet so as to engage the opposite face of the sheet, affixing adhesive
35 seals to said sheet to secure said string to said opposite face of the sheet at points adjacent to the ends of the string, thereafter wrapping the roll of roofing in said sheet with said opposite face outermost, sticking together the overlapping

portions of the sheet, applying header elements to the ends of the roll, and securing the marginal portions of the header elements with circumferential bands.

9. A method of wrapping a roll of convoluted
5 sheet roofing, which comprises preparing a sheet of paper having a length substantially equal to that of the roll and a width greater than the circumference of the roll, extending a string or the like lengthwise across the paper sheet, pass-
10 ing the end portions of the string back over the end edges of the sheet so as to engage the opposite face of the sheet, affixing adhesive seals to said sheet to secure said string to said opposite
15 face of the sheet, drying the adhesive on said seals, thereafter wrapping the roll of roofing in said sheet with said opposite face outermost, sticking together the overlapping portions of the sheet, pasting header elements and securing
20 bands on the end portions of the roll, and applying heat to the roll to dry the adhesive on said header elements and bands.

10. An article of manufacture comprising a substantially fiat sheet of wrapping paper, a piece of string or the like extending across one face
25 of said sheet from edge to edge thereof, said string being bent around said edges, and stickers adhesively attached to the opposite face of said sheet on portions of said string adjacent to the ends thereof, whereby said portions of the string
30 are secured to said opposite face of the sheet.

11. An article of manufacture comprising a substantially fiat sheet of wrapping paper, and a piece of string or the like secured at points adjacent to its ends to one face of the sheet by
35 dried adhesive stickers, the intermediate portion of said string extending around opposite edges of said sheet and across the opposite face thereof.

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