

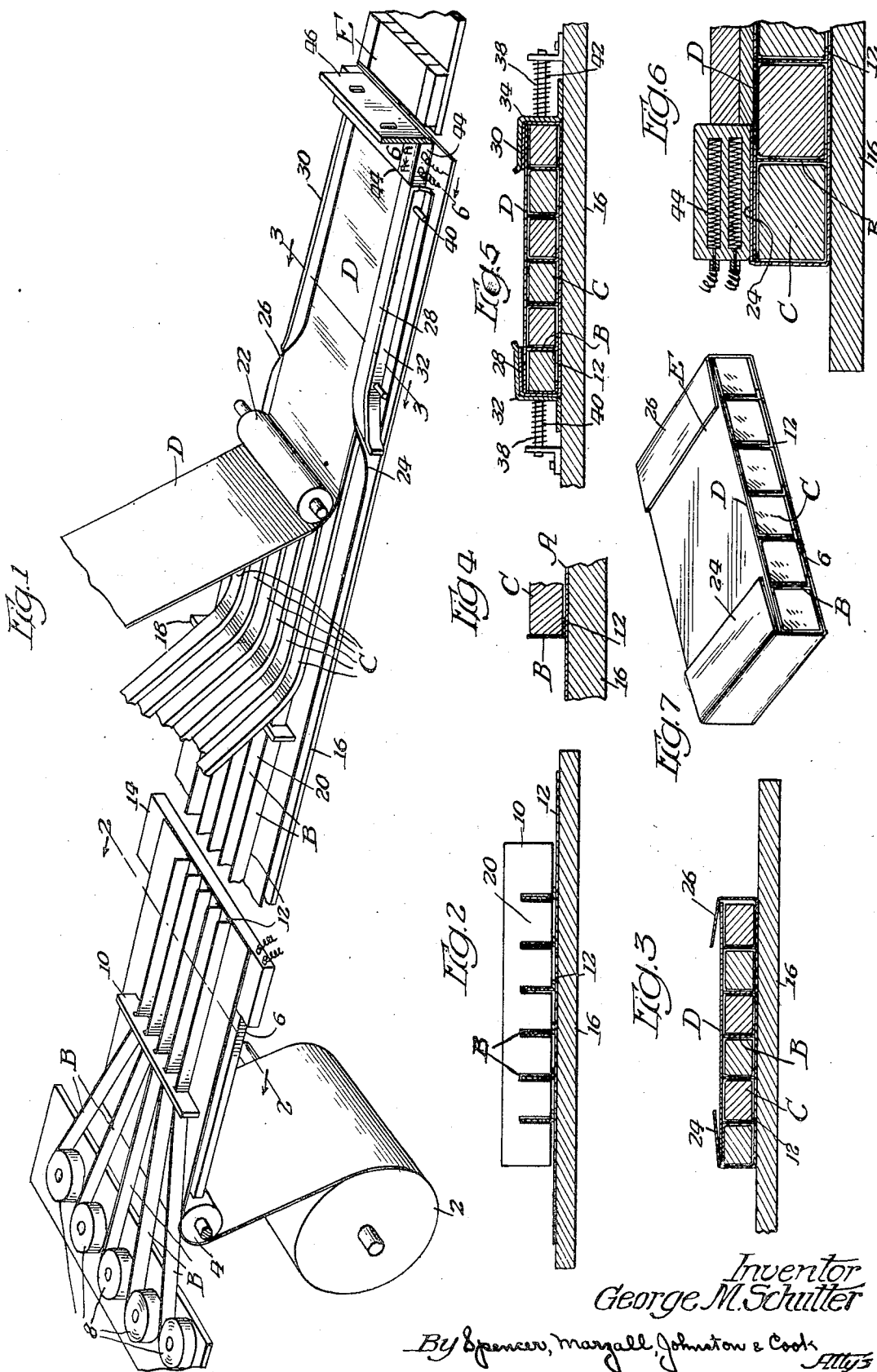
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METHOD OF PACKAGING

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METHOD OF PACKAGING

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8 Claims. (Cl. 93—3)

This invention relates to a method of packaging and more particularly to a method of packaging articles with a minimum amount of handling and the like.

One of the objects of the invention is to provide a new and improved method for packaging articles with a minimum amount of handling.

Another object is to provide a method of packaging articles in such a way that the articles are individually separated from each other within the package.

Still a further object is to provide a new and improved method for packaging articles in a non-interrupted or continuous manner, using a continuous strip of packaging material fed from a roll.

A more specific object is to provide a method for packaging articles by forming spaced partitions on the end of a continuous strip of packaging material, such as paper, then feeding or inserting continuous strips of an article, such as candy, into the spaces between the partitions, completing formation of the package in continuous strip form, and severing a packaged article of predetermined size from the end of the strip.

Other objects and advantages of the invention will be apparent by reference to the following description thereof in conjunction with the accompanying drawing, in which:

Figure 1 is a perspective view with parts broken away illustrating the manner in which the invention is practiced;

Figure 2 is a vertical section taken along the line 2—2 of Figure 1;

Figure 3 is a vertical section taken along the line 3—3 of Figure 1;

Figure 4 is a vertical section taken along the line 4—4 of Figure 1;

Figure 5 is a vertical section taken along the line 5—5 of Figure 1;

Figure 6 is an enlarged partial section taken along the line 6—6 of Figure 1; and

Figure 7 is a perspective view illustrating the completed package.

As illustrated in Figure 1, a strip of paper or other packaging material A is fed from a roll 2 over a suitable feed roller 4 and thence over a supporting plate 6. Auxiliary strips of paper B are fed from auxiliary continuous rolls 8 through a guide 10 by any suitable feeding mechanism, not shown, and are turned at their lower edges 12 to coincide with the paper strip A. The partition strips B and the continuous paper strip A preferably have a coating of wax thereon, so

that when the lower edges 12 of the partition strips B pass over the heating element 14 they are sealed to the paper strip A and thereafter are fed as a part of the paper strip A over an endless belt or other suitable conveying means 16 through a secondary guide 18.

The article, in this case candy strips C, is fed into the space 20 between the partition strips B in the form of continuous strips as illustrated in Figure 1. The delivery of the article may be effected with any suitable type of article delivery mechanism or feeding mechanism.

A top strip of paper D is thereafter fed over the top of the candy strips C to provide the top layer of the package. The top layer D is also fed from a continuous roll of paper or other packaging material, not shown, by any suitable type of feeding mechanism including the feed roller 22. Thereafter the marginal edges 24 and 26 of the paper strip A are turned over the top layer D by means of folders 28 and 30, or any other suitable type of folding mechanism and the candy package is preferably compressed by means of side bars 32 and 34 (see Figure 5) which are urged toward each other by suitable springs 36 and 38 mounted on studs or bolts 40 and 42. It will be understood that a pair of springs 36 and 38, such as illustrated in Figure 5, is provided adjacent each end of the side bar members 32 and 34. As will be further observed, the side bar members 32 and 34 tend to converge generally in the direction of the travel of the package.

It is preferable in accordance with the invention to seal the top layer D of the package to the marginal strips 28 and 30 of the paper strip A and this may be accomplished in any suitable manner, for example, by means of a suitable heating element 44 as generally shown in Figure 6.

After the continuous package has been formed in the manner described, packages of predetermined size are severed from the end thereof by any suitable severing means, such as a reciprocating knife 46 which preferably operates instantaneously so as not to interfere with the continuous movement of the package on the rear side of the knife. Instead of a reciprocating knife a continuously rotating knife may be employed, or any other suitable type of severing mechanism may be used.

As will be understood, the severed packages E shown in Figure 7 may be further wrapped with an outside label in any suitable manner. The invention is especially suited for the manufacture of candy bars from a candy material of a

taffy-like or flexible nature which may be readily cut into continuous strips C and fed into the channels or spaces formed by the partitions B.

The general method described may be practiced on different types of apparatus, mechanical details of which will be readily recognized by those skilled in the art. Hence, it is believed to be unnecessary to describe herein the various feeding mechanisms required to feed the continuous paper strip A, the continuous partition strips B, the articles C, or the continuous top strip D. One form of apparatus which may be employed in practicing the general principles of the invention in its broader aspects is described in detail in an application of Eugene J. Rebechini, Serial No. 501,421, filed of even date herewith.

While the invention is especially suited for packaging candy, and the like, with a paper packaging material, preferably one which is waxed, it will be understood that other types of packaging materials may be used, as for example, regenerated cellulose, cellulose acetate, and rubber hydrohalides (Pliofilm). It is preferable to use a material which is sufficiently thermoplastic to permit heat sealing in the manner previously described, although it will be understood that in some instances the heat sealing operation may be omitted. In the broader aspects of the invention it is not absolutely essential to fasten the partition strips B to the continuous paper strip A, or where they are fastened together an adhesive may be employed instead of heat sealing. It is also contemplated in accordance with the practice of the invention that the continuous strips B can be introduced between the article strips C after the latter have been disposed at spaced intervals on the continuous paper strip A but before the application of the top sheet D. Other variations and modifications will be apparent to those skilled in the art.

The invention provides a new and useful method of packaging candy or other suitable types of articles in a continuous manner and greatly reduces the labor and expense heretofore required in making such packages.

Having thus described the invention, what I claim as new and desire to secure by United States Letters Patent is:

1. A method of packaging which comprises forming partitions spaced laterally and extending lengthwise on the end of a continuous strip of flexible sheet material, inserting an article into the spaces between said partitions and then completing the formation of the package.

2. A method of packing which comprises forming a plurality of laterally spaced longitudinally extending partitions on the end of a continuous strip of flexible sheet material, inserting articles into the spaces between said partitions, completing the formation of the package in continuous strip form, and severing packaged articles of predetermined size from the end of said strip.

3. The method of packaging which comprises

continuously forming laterally spaced channels lengthwise in a continuous strip of packaging material, continuously introducing articles in continuous strip form into said channels, completing the formation of a packaged material in continuous strip form after the insertion of said articles, and severing packaged articles of predetermined size from the end of said continuous strip of packaged material.

4. A method of packaging which comprises continuously forming laterally spaced vertically extending partitions on the end of a continuous strip of packaging material, continuously inserting articles into the spaces between said partitions, continuously supplying a second continuous strip of packing material over the top of said channels containing said articles, folding marginal portions of said first continuous strip of packaging material over said second continuous strip, and severing packaged articles transversely from the end of the resultant continuous package.

5. A method of packaging which comprises continuously forming laterally spaced partitions on the end of a continuous strip of packaging material, continuously inserting articles in continuous strip form into the spaces bounded by said partitions, continuously supplying a second continuous strip of packaging material over the top of said articles, folding marginal portions of said first continuous strip of packaging material to coincide with said second continuous strip, sealing said strips together and severing packaged articles transversely from the end of the resultant continuous package.

6. A method as claimed in claim 5 in which said continuous strips of packaging material are thermoplastic and are heat sealed together prior to said severing operation.

7. A method of packaging candy which comprises forming laterally spaced partitions lengthwise of the end of a continuous strip of packaging material, continuously inserting candy in continuous strip form into the spaces between said partitions, continuously supplying a second continuous strip of packaging material over the top of said candy, folding marginal portions of said first continuous strip of packaging material over said second continuous strip, and severing packaged articles transversely from the end of the resultant continuous package.

8. A method of packaging candy which comprises forming partitions extending longitudinally and spaced laterally on a continuous strip of packaging material, feeding strips of candy onto said continuous strip of packaging material in the spaces between said partitions, thereafter completing the formation of a continuous package in continuous strip form, and severing individual packages transversely of the strip at predetermined intervals from said continuous package.

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