

No. 762,931.

PATENTED JUNE 21, 1904.

O. N. NORD.

PROCESS OF PRODUCING WRAPPED PACKAGES FROM LOOSE UNPACKED MATERIALS AND UNFOLDED WRAPPERS.

APPLICATION FILED MAY 26, 1902.

NO MODEL.

Fig. 1

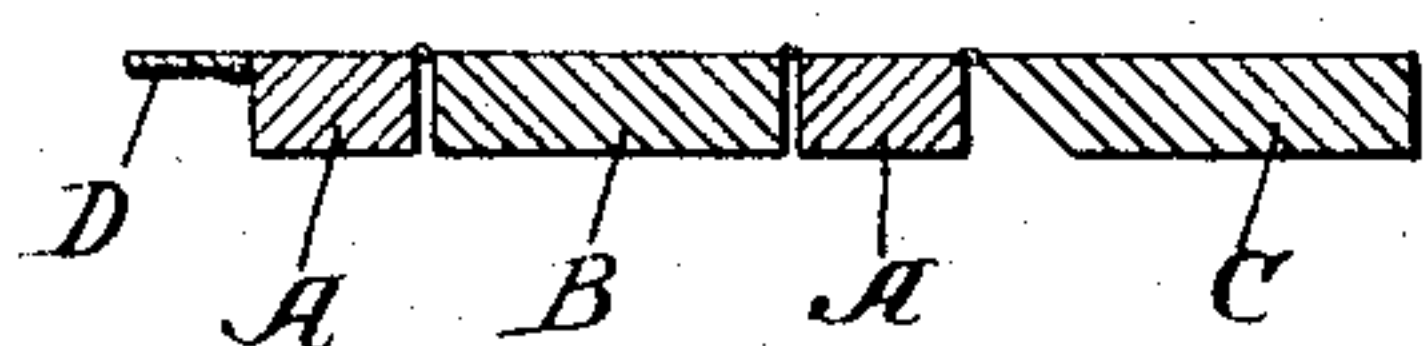


Fig. 2

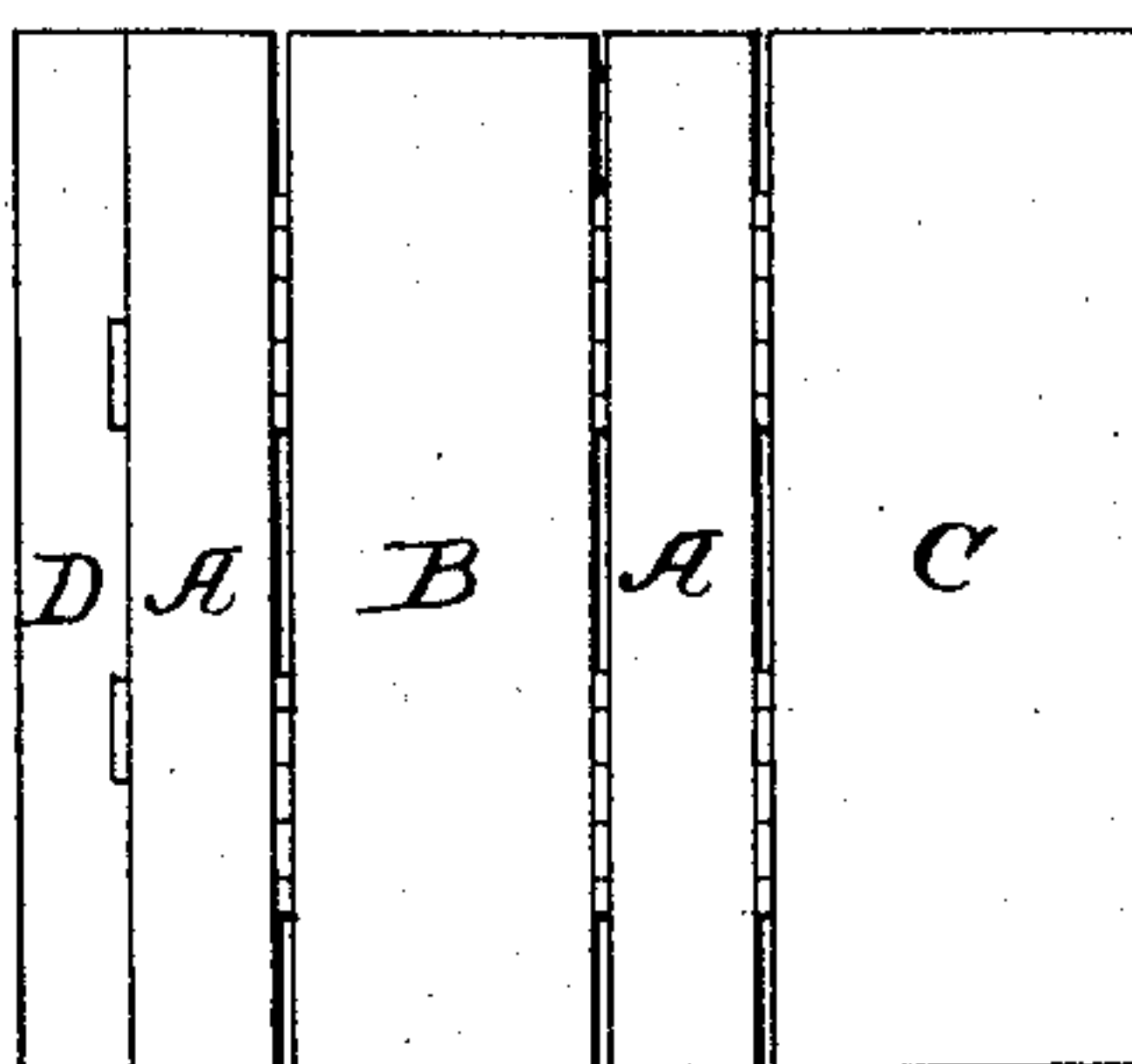


Fig. 3

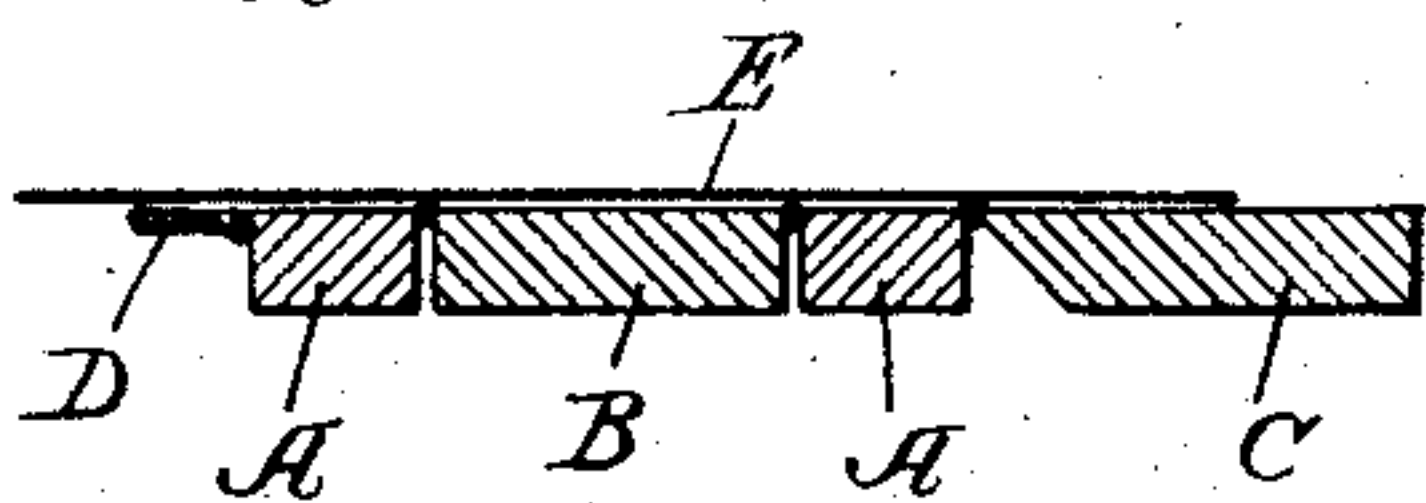


Fig. 4

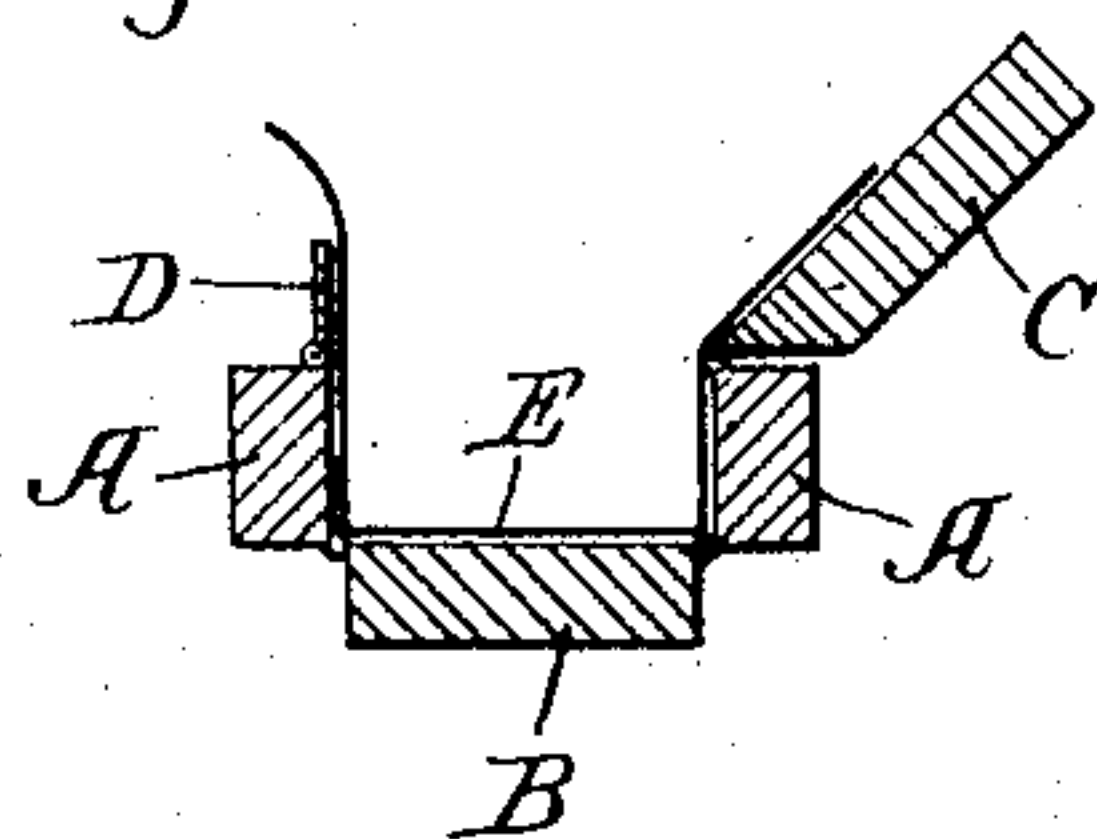


Fig. 6

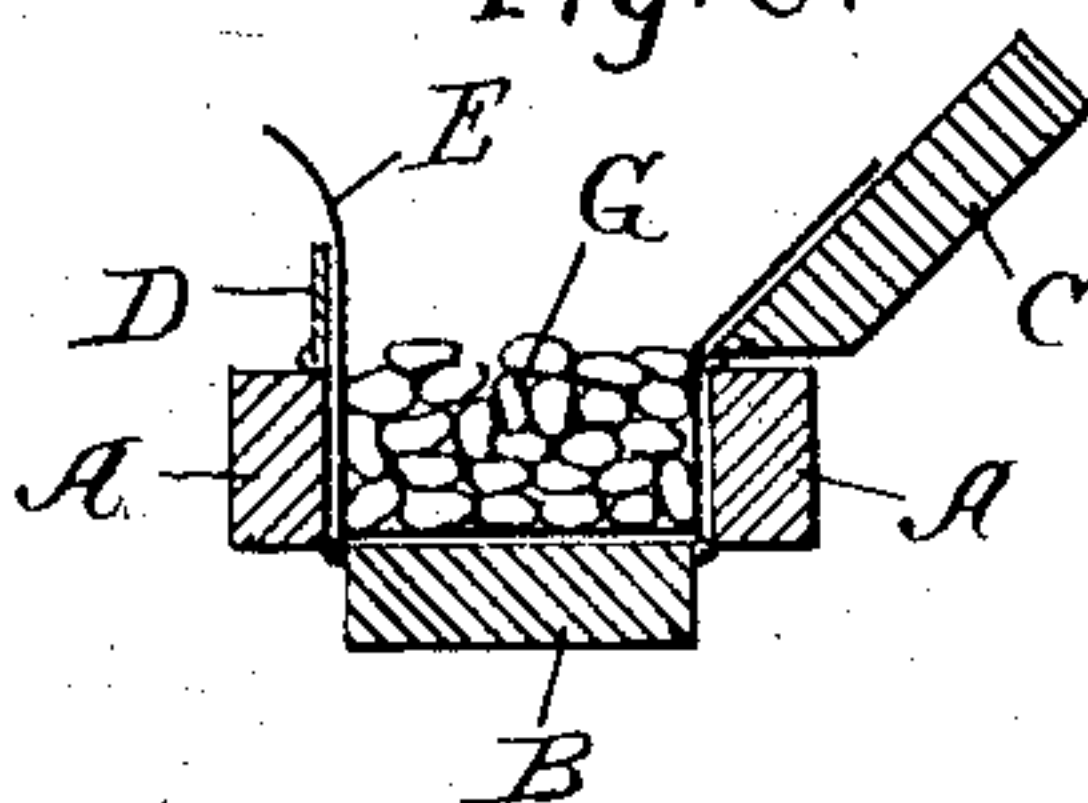


Fig. 5

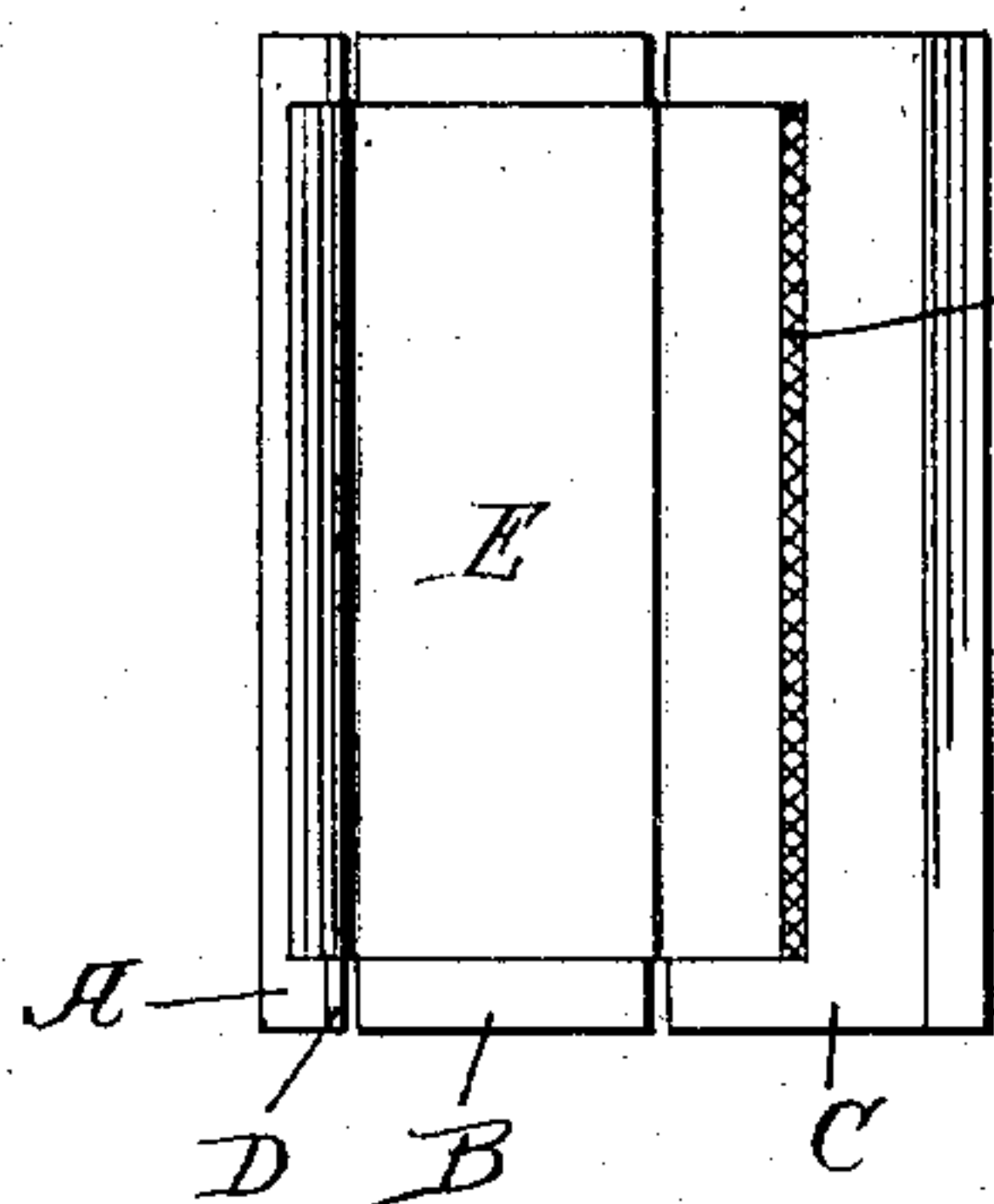


Fig. 7

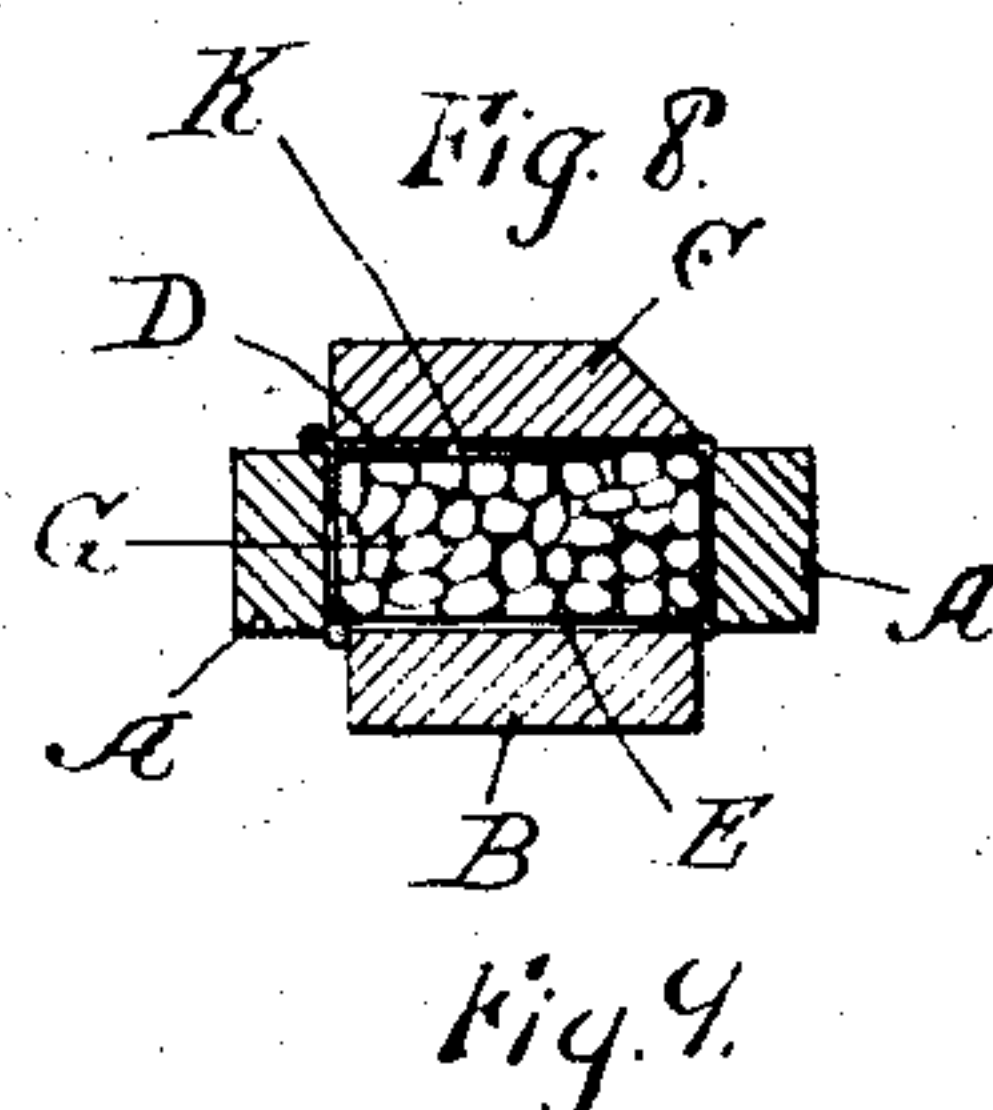
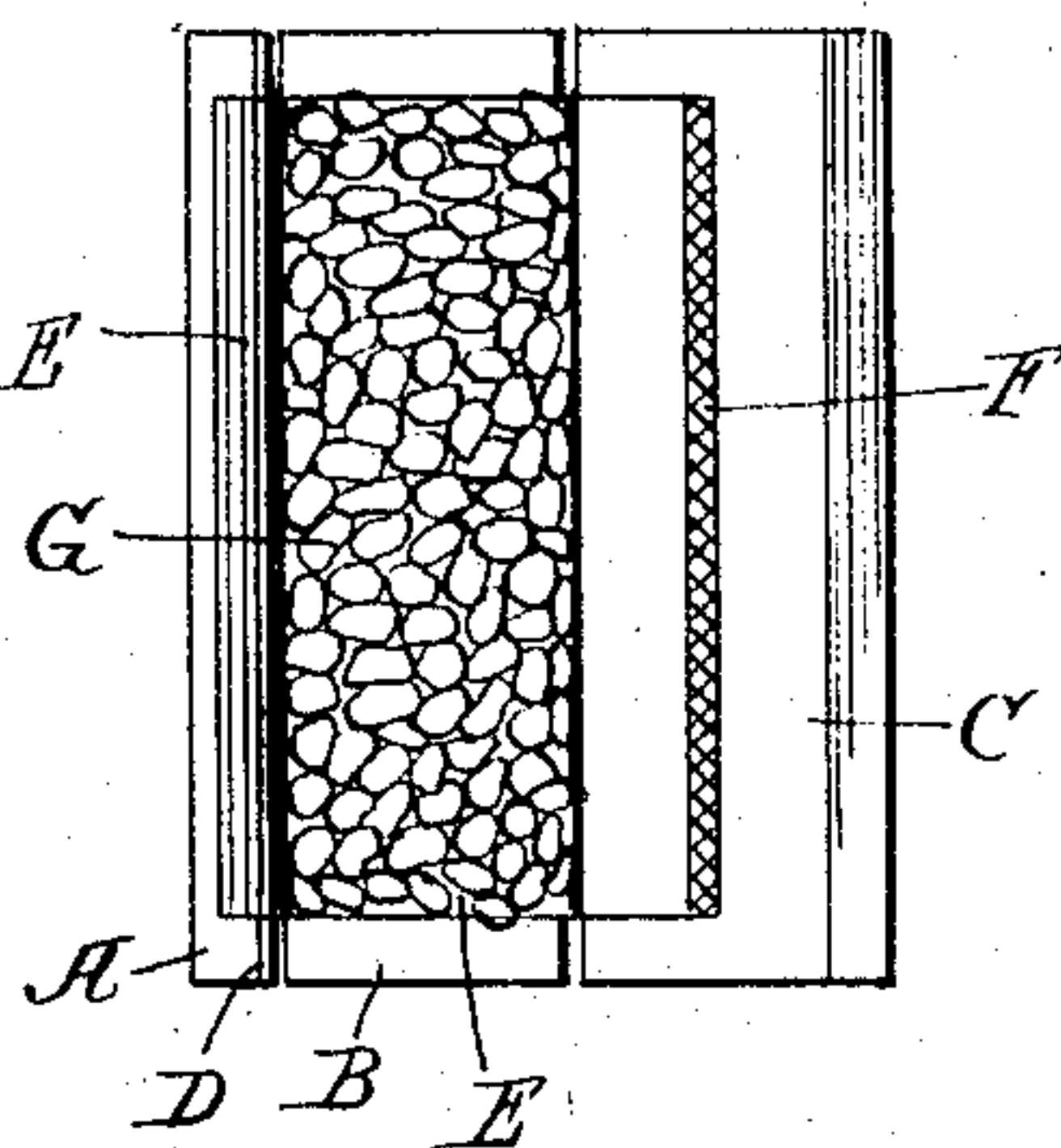


Fig. 9

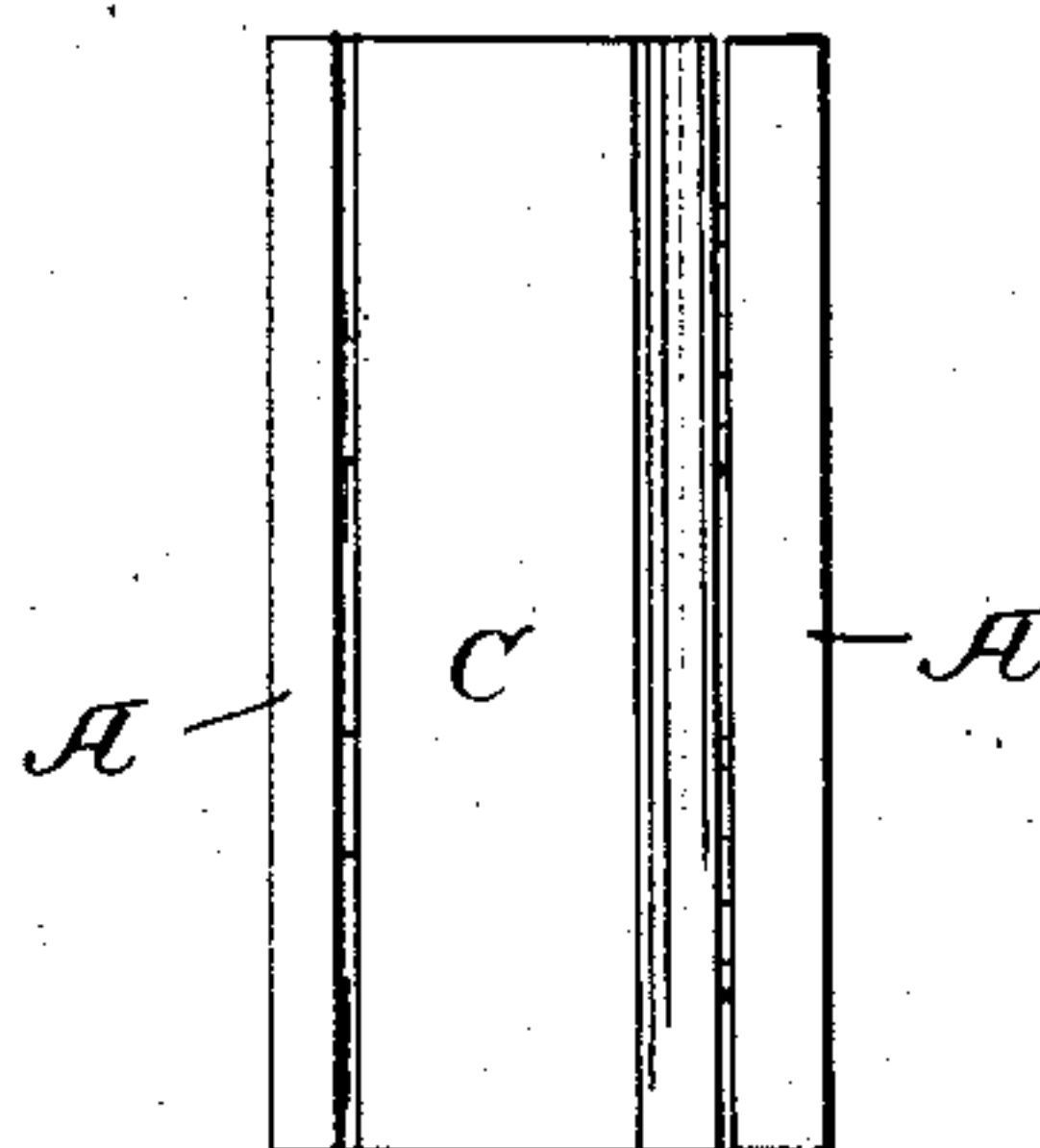


Fig. 10

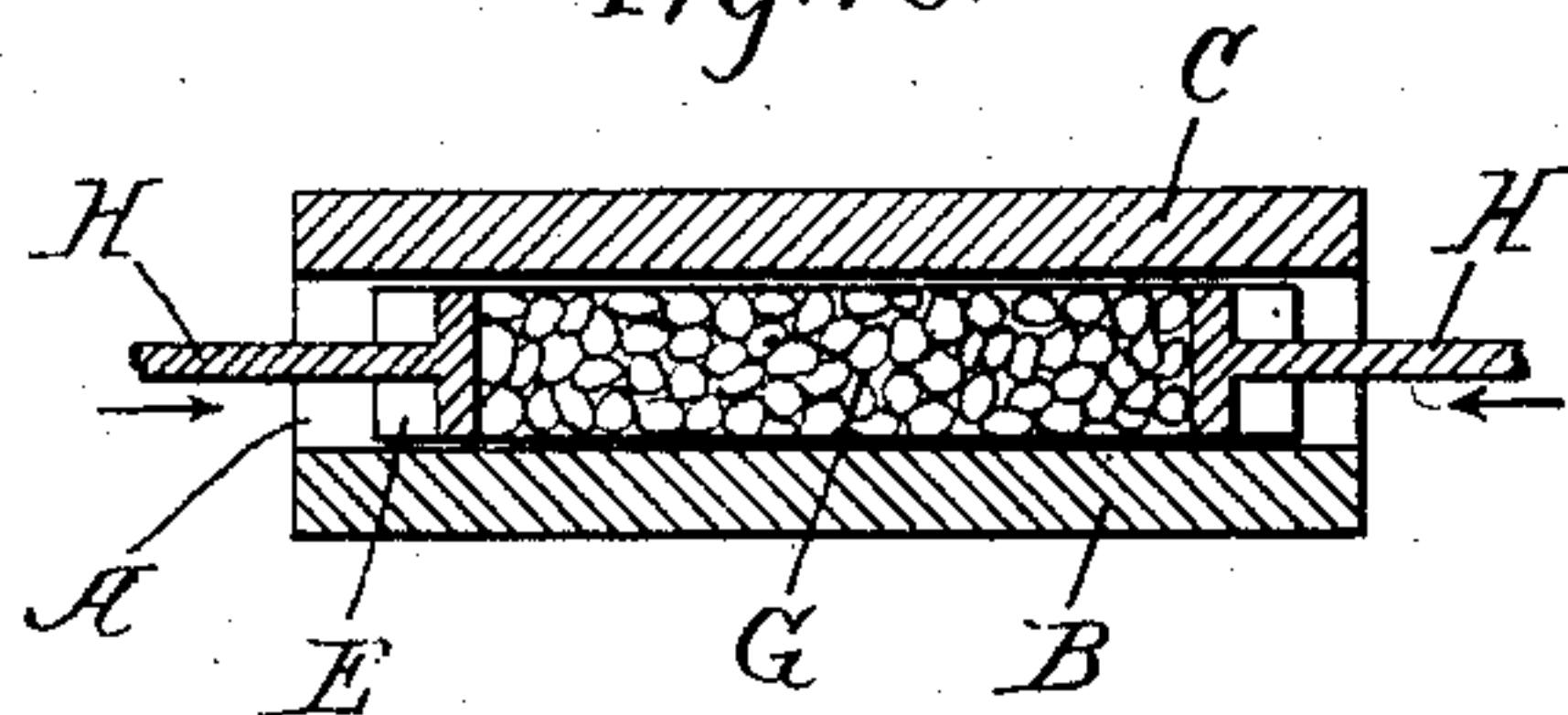


Fig. 11

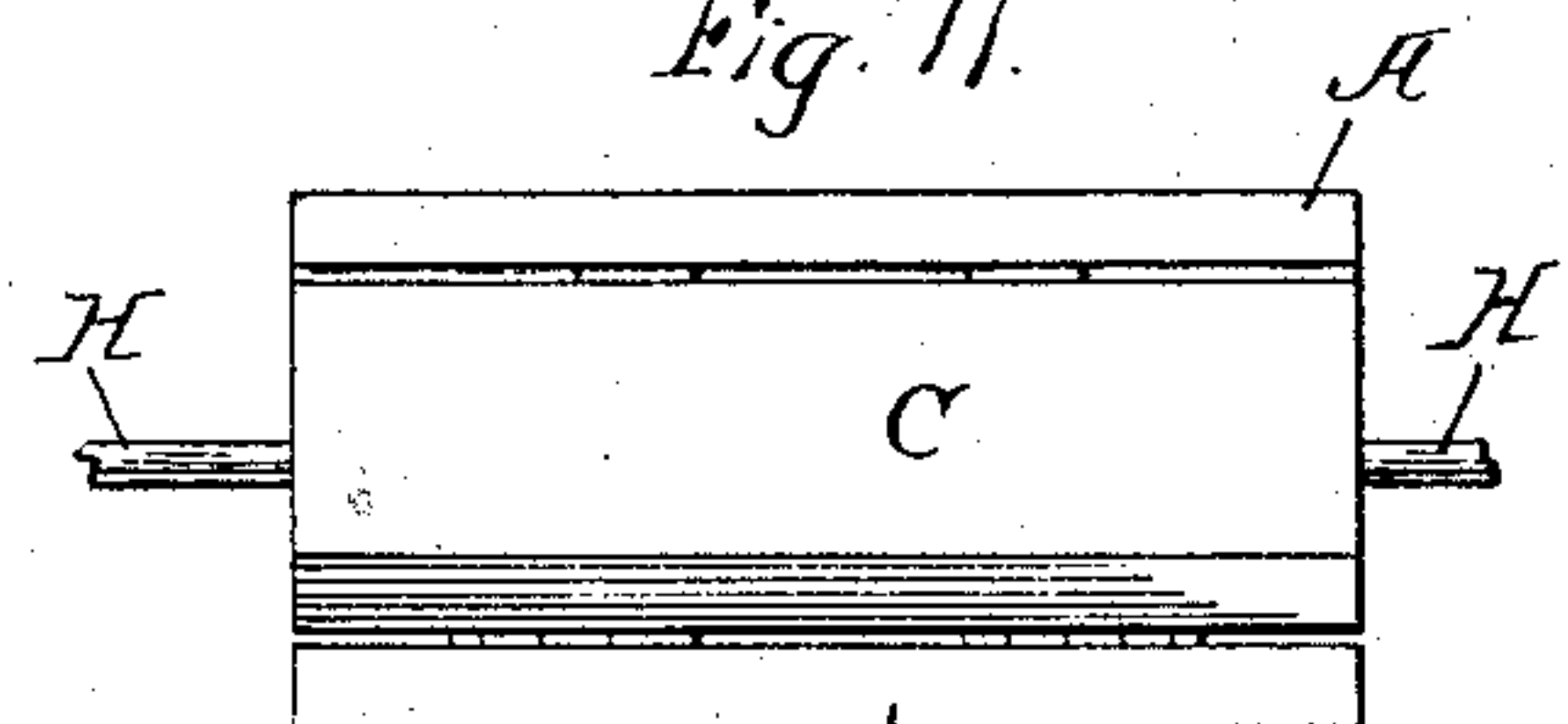


Fig. 12

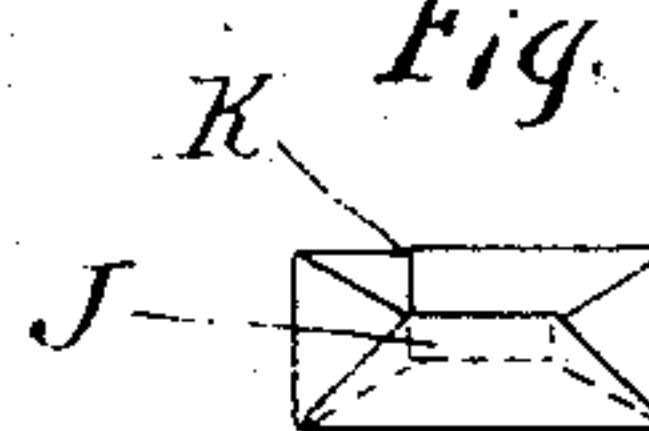
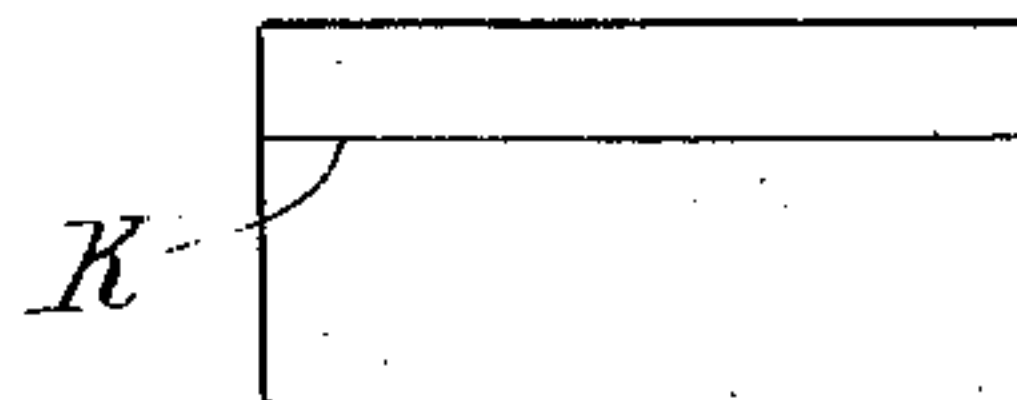


Fig. 13



Witnesses A

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# UNITED STATES PATENT OFFICE.

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PROCESS OF PRODUCING WRAPPED PACKAGES FROM LOOSE UNPACKED MATERIALS AND UNFOLDED WRAPPERS.

SPECIFICATION forming part of Letters Patent No. 762,931, dated June 21, 1904.

Application filed May 26, 1902. Serial No. 108,997. (No specimens.)

*To all whom it may concern:*

Be it known that I, OLOF N. NORD, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have  
5 invented a certain new and useful Improvement in Processes of Producing Wrapped Packages from Loose Unpacked Materials and Unfolded Wrappers, of which the following is a specification.

10 My invention relates to improvements in processes for producing wrapped paper packages from loose unpacked materials and unfolded wrappers, the process of forming the wrapper, packing the goods, and closing the  
15 wrapper being a continuous operation.

In attempting to produce packages of various materials—as, for example, prunes—considerable difficulty is experienced if the effort be made to put the prunes into a flexible wrapper after the wrapper has been formed  
20 into the shape of a bag or the like. My process consists in producing the complete package of wrapped material by a series of processes or steps in which the formation of the covering is carried on during and as part of the  
25 process of filling the same.

I have shown my improvement illustrated, as it were, diagrammatically in the accompanying drawings, for it will be readily understood  
30 that various kinds of machines and devices may be employed and that many, if not all, of the several steps might in a way be carried on by hand or by hand devices. I have invented a machine for the purpose of effecting these  
35 processes, but do not desire to limit the process to the use of any particular machine.

In the accompanying drawings, Figure 1 is a cross-section through a former consisting of several folding parts. Fig. 2 is a plan view  
40 of the same. Fig. 3 is a cross-section of the same with a wrapping-paper in position. Fig. 4 is a cross-section of the same with the parts folded up so as to partially complete the former. Fig. 5 is a plan view of the same, the  
45 paper or wrapper being shown as gummed at one edge. Fig. 6 is a cross-section of the same after the materials—for example, prunes—have been poured into the former in sufficient

quantity. Fig. 7 is a plan view of the same. Fig. 8 is a cross-section showing the former 50 closed, so that the prunes are compressed together in one direction and the edges of the paper are folded upon each other so as to form a tube-like package. Fig. 9 is a plan view of the same. Fig. 10 is a longitudinal section 55 showing plungers compressing the contents—as, for example, prunes—from the ends within the partially-folded wrapper. Fig. 11 is a plan view of the same. Fig. 12 is an end view of the package, the ends of the wrapper hav- 60 ing been folded over upon each other and preferably sealed. Fig. 13 is a plan view of the complete package.

Like parts are indicated by the same letter in all the figures.

65 A A are the side pieces, B the bottom, C the top, and D the paper-folder of the former. E is a sheet of paper, having, preferably, the gummed edge F. G represents a quantity of material, such as prunes. H H are plungers. 70 J indicates the folded ends of the wrapper, and K the line of overlap of the sides of the wrapper. As previously suggested, these parts could be greatly varied without departing from the spirit of my invention, and the ex- 75 act order of the several steps is not essential.

The use and operation of my invention are as follows: Assuming that my process is to be carried out by a device such as that shown, I would furnish first the several parts, prop- 80 erly folded together, of a former, and they would as the first step be laid out so as to form a flat table. Of course it might be partially folded up, but it is more convenient to have it flat, and on this table I lay down the 85 wrapper, in this case a piece of paper. It can be held in position in any desired manner, and the several parts of the former are then folded so as to partially produce the former, thus producing a receptacle lined by the paper to 90 receive the prunes or material. The materials are then inserted into this partly-prepared former directly against the unfolded wrapper. The process of completing the folding of the wrapper, in at least one sense, 95 is then continued, preferably by folding over



the portions of the former to complete the same, thus carrying down the two flaps or edges of the paper or wrapper. If, as indicated, they are gummed, then the wrapper will be formed into a tube-like body containing the material, sealed along the side or along the two edges of the side of the package. This, however, leaves the material in a tube-like package open at one or both ends, preferably both ends. This material must now be compressed within the package, and this is done by introducing the plungers, one or both of which may travel and which compress the material directly against the inner face of the wrapper. Obviously this does not endanger the wrapper, because it is backed up on either side by the inner surfaces of the former. When the material has been sufficiently compressed to form a package of the desired size and shape, the plungers may be withdrawn and the ends of the wrapper can be folded over and sealed in any desired manner. This may take place within the former or after the package has been removed therefrom. This gives a complete finished package of compressed and wrapped material, the processes of forming the filling the package being intertwined, as it were, so as to form one continuous and complete process, each step in each of the joined processes cooperating with the associated steps of the other processes to produce the new process.

I claim—

1. The process of producing a filled package from an unformed wrapper and material, which consists in partially forming the wrapper into the shape of the finished package, then introducing the material into such wrapper, then continuing the process of forming such wrapper into the shape of the finished package, then compressing the material within such partially-formed wrapper, then closing the ends of such package.

2. The process of producing a filled package from an unformed wrapper and material, which consists in partially forming the wrapper into the shape of the finished package, then introducing the material into such wrapper directly against its inner surface, then continuing the process of forming such wrapper into the shape of the finished package, then compressing the material within such partially-formed wrapper, then closing the ends of such package.

3. The process of producing a closely-filled package from an unformed wrapper and material, which consists in partially forming the wrapper into the shape of the finished package, then introducing the material into such wrapper, then continuing the process of forming such wrapper into the shape of the finished package, but leaving one or more unclosed parts, then compressing the material within such package through such unclosed parts, then closing such parts.

4. The process of producing a closely-filled package from an unformed wrapper and material, which consists in partly forming the wrapper into the shape of the finished package, then introducing the material into such wrapper through an opening, then continuing the process of forming such wrapper into the shape of the finished package so as to close such opening, then compressing the material within the wrapper from an opening in the wrapper, then closing the opening in said wrapper.

5. The process of producing a closely-filled package of material from an unformed wrapper and material, which consists in partially forming the wrapper into the shape of the finished package, then introducing the material into such partially-formed wrapper, then closing such partially-formed wrapper about the material, then compressing the material by the direct application of pressure to the material within such partially-formed wrapper, then completing the forming of the wrapper about the compressed material.

6. The process of producing a filled package from an unformed wrapper and material, which consists in partially forming the wrapper into the shape of the finished package, but with certain of its sides open, then introducing the material into such wrapper through one of these sides, then continuing the process of forming such wrapper to close such opening, then compressing the material within such partially-formed wrapper, then closing the ends of such package.

7. The process of producing a filled package from an unformed wrapper and material, which consists in partially forming the wrapper into the shape of the finished package, but with certain of its sides open, then introducing the material into such wrapper through one of these sides, then continuing the process of forming such wrapper to close such opening, then compressing the material within such partially-formed wrapper by applying pressure thereto at two points within the wrapper and directly to such material, then closing the ends of such package.

8. The process of producing a closely-filled package from an unformed wrapper and material, which consists in partially forming the wrapper into the shape of the finished package, then introducing the material into such partially-formed wrapper, then compressing the material within such partially-formed wrapper by the direct application of pressure to such material at two points within such partially-formed wrapper, then completing the forming of the wrapper about the compressed material.

OLOF N. NORD.

Witnesses:

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HOMER L. KRAFT.