(No Model.)

F. R. BUCK.

METHOD OF PACKING GRANULAR MATERIAL.

No. 387,140. Patented July 31, 1888.

Fig. 2.

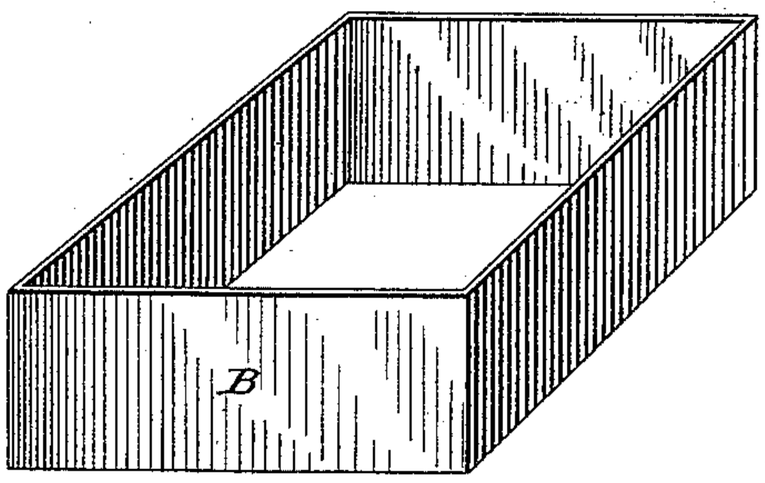


Fig. 1.

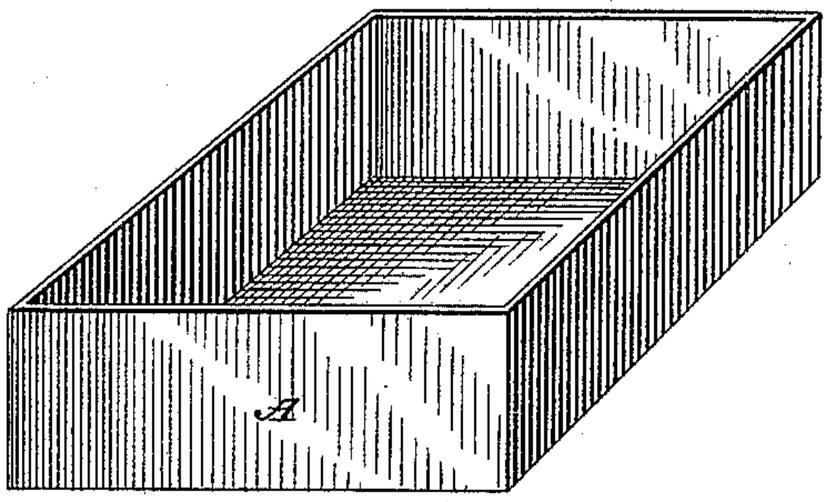


Fig. 3.

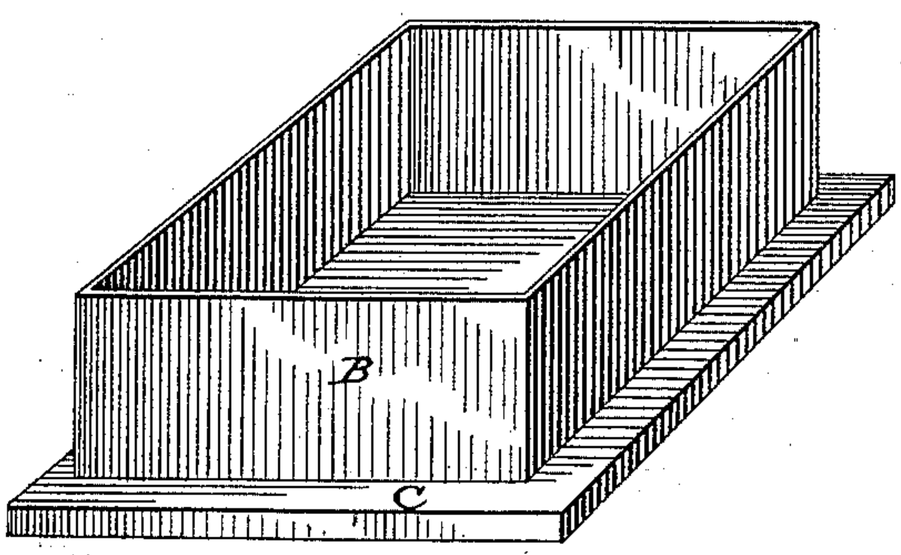


Fig. 4.

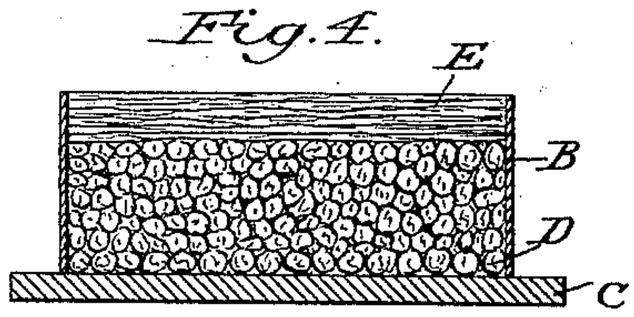


Fig. 5.

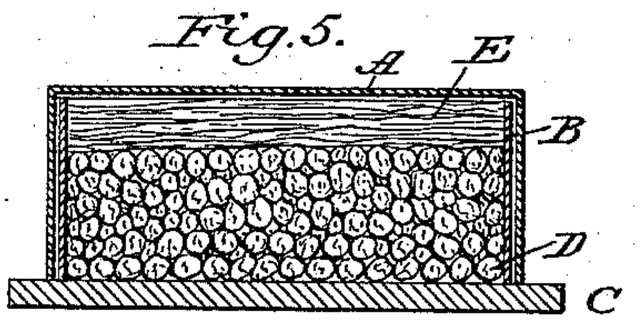


Fig. 6.

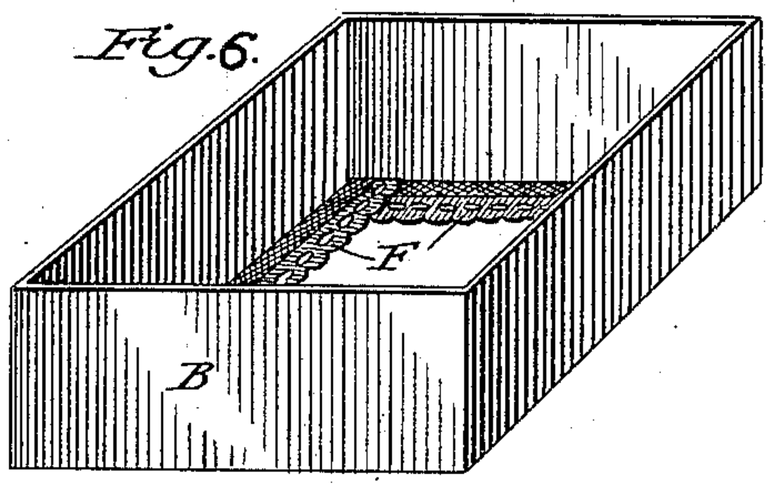
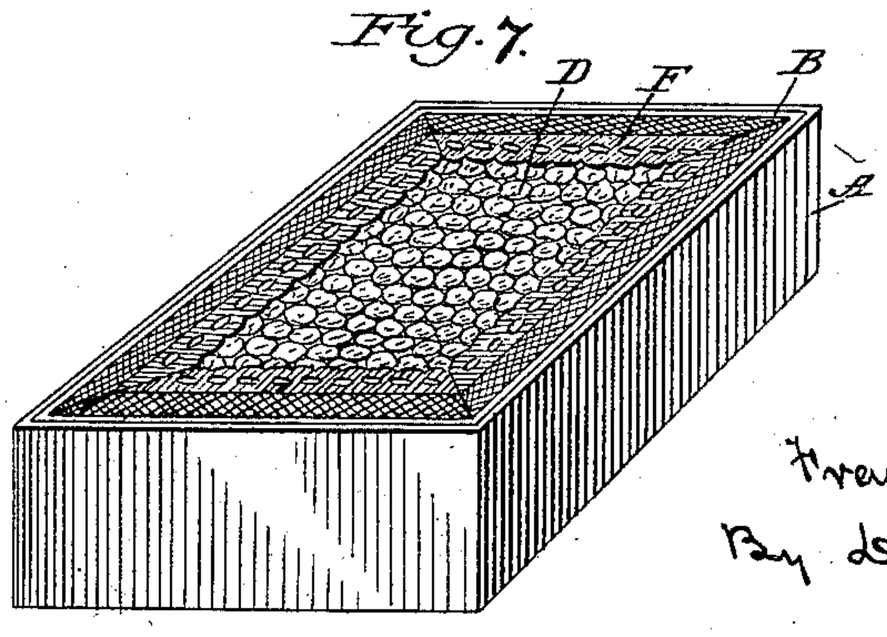


Fig. 7.



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UNITED STATES PATENT OFFICE.

FRANK R. BUCK, OF NEW YORK, N. Y.

METHOD OF PACKING GRANULAR MATERIAL.

SPECIFICATION forming part of Letters Patent No. 387,140, dated July 31, 1888.

Application filed October 31, 1887. Serial No. 253,836. (No model.)

To all whom it may concern:

Be it known that I, FRANK R. BUCK, of the city, county, and State of New York, have invented a new and useful Method of Packing Granular Materials, Fruits, &c., in Ready-Made Boxes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

It has been found desirable in packing crackers, fruits, nuts, confections, tobacco, and other materials which, being in small pieces or in a granulated or comminuted condition, admit of being arranged in an orderly manner to make the top layer of the package as level, uniform, and regular in appearance as possible, so that upon opening the package it shall be pleasing and attractive to the eye. It is also often found desirable to have sample-boxes which shall be of the same size and outward appearance in all respects as the packages to be sold, and since it is not necessary that these sample-boxes shall be filled it is customary to make a false top or cover for the box and to pack therein a single layer only of the merchandise, the remaining space being left empty or stuffed with paper, shavings, or other worthless material, thereby avoiding a needless outlay of the merchandise. It has also heretofore been a common practice to make the bottom plate of the box loose or detachable, and after placing the box upside down upon a level surface to remove the bottom and pack the box by first arranging therein the layer which shall be uppermost, and, after filling the remainder of the box in any desired manner, closing it by making fast thereon the bottom plate; and, furthermore, as an improvement upon this method of packing an incomplete box, a knockdown or unmade box consisting of a box-cover, a body or neck, and a bottom has been employed, and, the loose body or neck being first inserted in the cover, the top layer is arranged upon the cover within said neck, the neck filled to the top, and the bottom of the box then fitted over the neck and against the cover, and secured to the body by means of glue or other devices, so as to complete the box after the goods have been placed therein.

My invention differs from the methods and devices now in use, in that it facilitates the packing either from the top or the bottom and without the use of auxiliary apparatus other than a simple lining-frame of the ordinary complete pasteboard boxes in common use by grocers, confectioners, and other dealers, and which are to be found ready made in the market and cannot be taken apart without marring and defacing them.

It consists in packing with the proper material, as hereinafter described, an open lining or re-enforcing frame adapted to fit closely within and yet be readily removed from the ordinary box which is to be filled, and which is made of a depth corresponding with that of the box, then fitting the ready-made box over said packed frame, so as to inclose it, and, finally, reversing the box with the frame inclosed therein, so as to bring the open top of the box uppermost in readiness to receive the cover.

In the accompanying drawings, A, Figure 1, represents a complete finished box to be packed with candies or other material which it is desirable shall present a neat appearance in the topmost layer. The cover of the box is not shown.

B, Fig. 2, represents an open frame, which may be made of tin, wood, pasteboard, or other suitable material, and which is of the exact dimensions, both as to length, breadth, and depth, of the inside of the finished box A, so that it is adapted to fit snugly therein either end up, and yet admit of ready removal therefrom.

Fig. 3 is a perspective view of the packing and re-enforcing frame placed upon a board or table in readiness for packing. Fig. 4 is a central transverse section of the frame when packed. Fig. 5 is a similar sectional view showing the packed frame covered and inclosed by the outer box, which is to be re-enforced by the frame. Fig. 6 is a perspective view of a detached packing and re-enforcing frame trimmed with lace-paper; and Fig. 7 is a perspective view of a box completely packed by my process, with its cover removed.

Similar letters indicate like parts in all the figures.

The box A, which may be of any suitable material and of any desired form having straight sides, is packed by the aid of the

frame B, made, as described, to conform to the inside of the box, as follows: First, the frame is placed upon a board or table, C, (see Fig. 3,) and, where the material to be packed admits thereof, the uppermost layer, D, (see Fig. 4,) is arranged with due care in the bottom of the frame upon the board C; second, the remainder of the frame is then filled in with more or less care, and if it be not desired to pack the box completely with the selected material the space remaining after the proper quantity has been placed upon the first layer, D, may be filled up with paper, shavings, or any other material, E, as shown in Fig. 4; third, the box A is then fitted upside down over the packed frame B in manner as shown in Fig. 5; fourth, the box A and the packed frame inclosed thereby are now inverted to bring the open side up, thereby bringing the layer D to the top, where it will remain exposed in view when the box is open.

The box is now ready to receive its cover, and the frame B, remaining therein, serves not only as a re-enforcing lining therefor, but will make a neat and ornamental finish for the open top of the box, especially where lace-paper or other trimmings are used, as shown in Fig. 7, the trimmings F in such case being applied to the edge of the frame, as shown in Fig. 6.

An important advantage is found in my invention in that it permits of the packing and arrangement in due form of a top layer of goods which from their nature will not admit of being arranged face downward without support. In such case the frame B, placed upon a board, C, is filled up with the desired quantity of material and the top layer systematically arranged thereon in manner to give a pleasing effect and appearance. The frame B thus packed may now be reversed, so as to bring the top layer to the bottom and allow it to settle down upon the board C, so as to attain a uniform level flush with the edge of the frame. The space yet remaining in the frame may be now completely filled and the box A telescoped over the frame and then reversed with the frame in it in readiness to have its cover fitted thereon. The top layer will thus be uniform with the top edges and made to present a regular, neat, and finished appearance.

By means of my invention any style of finished box now in the market may be as readily and neatly packed with a finished top layer as any of the unmade or knockdown boxes heretofore provided especially for this purpose, and as the frame remaining in the box serves as a re-enforce therefor a less costly box may be used without risk or damage from consequent weakness therein.

I am aware that small fruits have heretofore been packed by means of a metallic case or box in connection with the regular packing-box to contain the articles. The metallic case in such case is made to fit closely, but not tightly, within the packing-box, and contains a follower provided with a handle projecting outwardly through a tube secured to the bottom of the box. In the use of this device the fruit is first packed in the metallic case upon the follower. The packing-box is then fitted over the case. The box and case are next inverted to bring the bottom of the case uppermost, and while the follower is held stationary by means of the handle projecting therefrom the case is lifted out of the box by the tube encircling the handle, and the follower, with the case, is then wholly removed. My invention differs from this method of packing a box in that I pack the goods, not in a case, but in an open frame upon a loose board, the frame being then covered by the packing-box, so as to inclose it therein. The frame, without requiring any adhesive substance or other means of fastening to keep it in place, will remain in the box, will serve to re-enforce it, and the entire process, while extremely simple and very expeditiously completed, has the advantage of being available without any special apparatus apart from the packing-box itself and the open frame by which it is lined and re-enforced.

I claim as my invention—

The method of packing ready-made boxes, which consists in first properly placing the goods in a permanent frame whose outer dimensions correspond with the dimensions of the interior of the box to be packed, then fitting the box bottom side up over the frame so packed, then placing the box and frame open side up, and allowing the frame to retain its position surrounding the contents of the box, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK R. BUCK.

Witnesses:
A. N. JESBERA,
E. M. WATSON.