

No. 670,076.

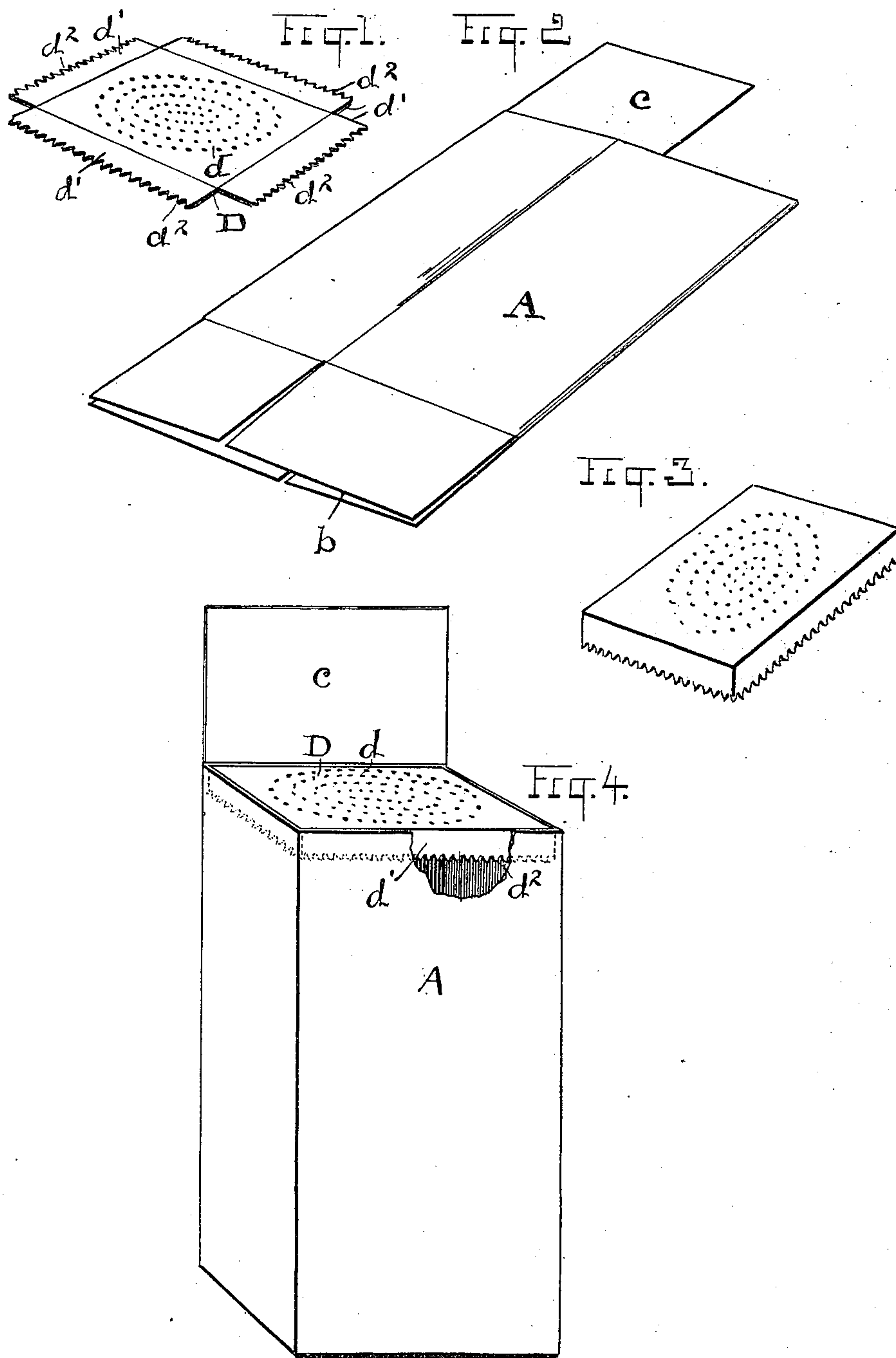
Patented Mar. 19, 1901.

A. H. HOFFMAN.

SIFTING BOX.

(Application filed Apr. 18, 1900.)

(No Model.)



ATTEST

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ALBERT H. HOFFMAN, OF CLEVELAND, OHIO, ASSIGNOR OF ONE-HALF TO
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SIFTING-BOX.

SPECIFICATION forming part of Letters Patent No. 670,076, dated March 19, 1901.

Application filed April 18, 1900. Serial No. 13,305. (No model.)

To all whom it may concern:

Be it known that I, ALBERT H. HOFFMAN, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Sifting-Boxes; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it ap-
10 pertains to make and use the same.

My invention relates to improvements in sifting-boxes; and the invention consists in a box with a yielding body and a separate sheet-metal top, all substantially as shown and de-
15 scribed, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective view of one form of metallic or sheet-metal top in blank as it is prepared in
20 dies before shaping up. Fig. 2 is a perspective view of a square box, capsule, or packet collapsed as it appears in shipping and storing. Fig. 3 is a perspective plan view of a sheet-metal top ready to be inserted in the
25 box. Fig. 4 is a perspective elevation, partly in plan, of the box complete, with the separate top or end in place.

The box complete, as herein shown, is designed to be a substitute for both the all-paper boxes which have hitherto been made and
30 the all sheet-metal or tin boxes also in common use for spices of different kinds, and it is practically an improvement on both, with the good points of both brought forward and the objections omitted. Obviously it is very
35 desirable in shipping and storing large quantities of empty boxes of this general kind that they should occupy as little room as possible and also that they should be comparatively
40 inexpensive, so that the box or packet itself would not add materially to the cost to the purchaser and that it could be packed in small space for convenience and cheapness in ship-
ping.

45 Of course a tin box is necessarily rigid and cannot be reduced in size, though it be empty, and will occupy the same space whether empty or full. Hence the very great advantage hitherto of a paper box or "capsule," as it is some-
50 times called, which could be collapsed or folded down flat and occupy no more space than

the thickness of the cardboard itself. Then there is also the element of lightness in cardboard, pasteboard, or stiff-paper stock and in these days the element of cheapness as com-
55 pared with tin. Hence the advantages to the trade are altogether with a heavy-paper, cardboard, or pasteboard capsule and sheet-metal top; but it has never been known heretofore, so far as I am aware, to provide a paper box
60 with a perforated top of any kind, whether of tin or other material, so as to adapt it not only for storing the spices or other material therein until it is used up, but also making the box take the place of the usual perforated spice-
65 box as well. Thus a paper or cardboard capsule is converted into, say, a pepper-box for household use. This I believe to be absolutely new and original and constitutes one embodiment of my invention.

70 Referring now again to the drawings, A represents the body of the box, which in the different adaptations of my invention is made of paper, pasteboard, cardboard, or their equivalent, presumably in the usual
75 way and with the usual bottom sections *b*, as shown here. I say this because I claim no novelty whatever in the box itself apart from my improvements and may employ one that is square in cross-section, cylindrical, or
80 any other suitable shape. The bottom sections *b* are divided at the corners to be folded one over the other, and the top may have a sealing-lid *c* integral with the body or be provided with any other suitable seal to protect
85 and confine the contents for commercial purposes; but when the box is to be used the seal is removed. This exposes the perforations *d* in the metallic and preferably sheet-tin top or end insertion D. This top or end is origi-
90 nally stamped from a plate into the desired shape—say as seen in Fig. 1 if the box be rectangular and a modification of this if it be round or cylindrical. As shown, it has four
95 wings to form its four sides *d'* and each wing or side has a series of fairly-sharp serrations or teeth *d''* along its edge. These teeth are relatively short, but long enough to serve for locking top D in place. This is accomplished
100 by employing suitable shaping or forming tools within and without the box jointly to throw and set the points of all the teeth *d''*

more or less acutely into the sides of the box, wherein they become buried and both seal the top against the sifting out of contents at the edges and lock the top itself against displacement when handled. This operation for setting teeth d^2 occurs before the box is filled and the bottom b is folded and closed and is easily and quickly performed with the right tools. In this way I produce a sifting-box which has every advantage of an all-tin or like plate box with a perforated top and which can be used wherever tin boxes are used, with the added advantage of being shipped to the user in a knockdown or collapsed condition, costing only a fraction of what tin is now worth. Then, again, I have the important advantage also of taking my new and original top to a stock of boxes already in hand and converting them from mere storage-boxes to real pepper or other sifting boxes, which a housewife or other person can use by simply removing the seal, when it is available even for individual use at the plate. It will be understood that as square paper or cardboard boxes have been commonly made heretofore both ends have been alike and both were closed in a like way—say as the bottom in this case. Then to sift the contents they had to be removed to a perforated hand-box. My invention makes the original pepper or like package a perforated every-day hand-box as well—that is, it converts the original package into a hand-box and dispenses entirely with the more expensive special hand-box heretofore used. The top D being rigid, it will of course hold the box in shape though it be empty, while the bottom serves the same purpose at the other end, thus making a package as truly rigid as if it were made throughout of tin-plate.

As shown in Figs. 2 and 4, the body of the box is made with slight creases or scores

lengthwise at its corners, on which it folds and unfolds, so that its sides remain unbroken.

The body of the box is necessarily more or less flexible and yielding, or it would not permit of folding nor receive the teeth d' , which are pressed into its sides.

It will be noticed as a distinguishing feature from ordinary folding boxes or packets in other classes that this box is an integral member with its sides knit together in one piece from end to end and not separable and that the creased lines at the corners act as hinges on which the folding and unfolding take place.

The term "sides" as herein used when applied to the box refers to the entire surface of the body, whether it be rectangular or other shape and whether it be inside or outside.

Obviously, although I have described this as more particularly a spice box or packet, it may be used with whatever materials it shall be found useful.

By "yielding" or "depressible" material I mean such material as is soft enough to allow the serrations of the top to be pressed into it and is therefore contradistinguished from tin, brass, or metal which has no such quality.

What I claim is—

A collapsible box having lines lengthwise on which it unfolds and a foldable bottom integral therewith, and a separate perforated sheet-metal top having a flanged rim permanently locked in place, substantially as described.

Witness my hand to the foregoing specification this 11th day of April, 1900.

ALBERT H. HOFFMAN.

Witnesses:

H. E. MUDRA,
R. B. MOSER.