

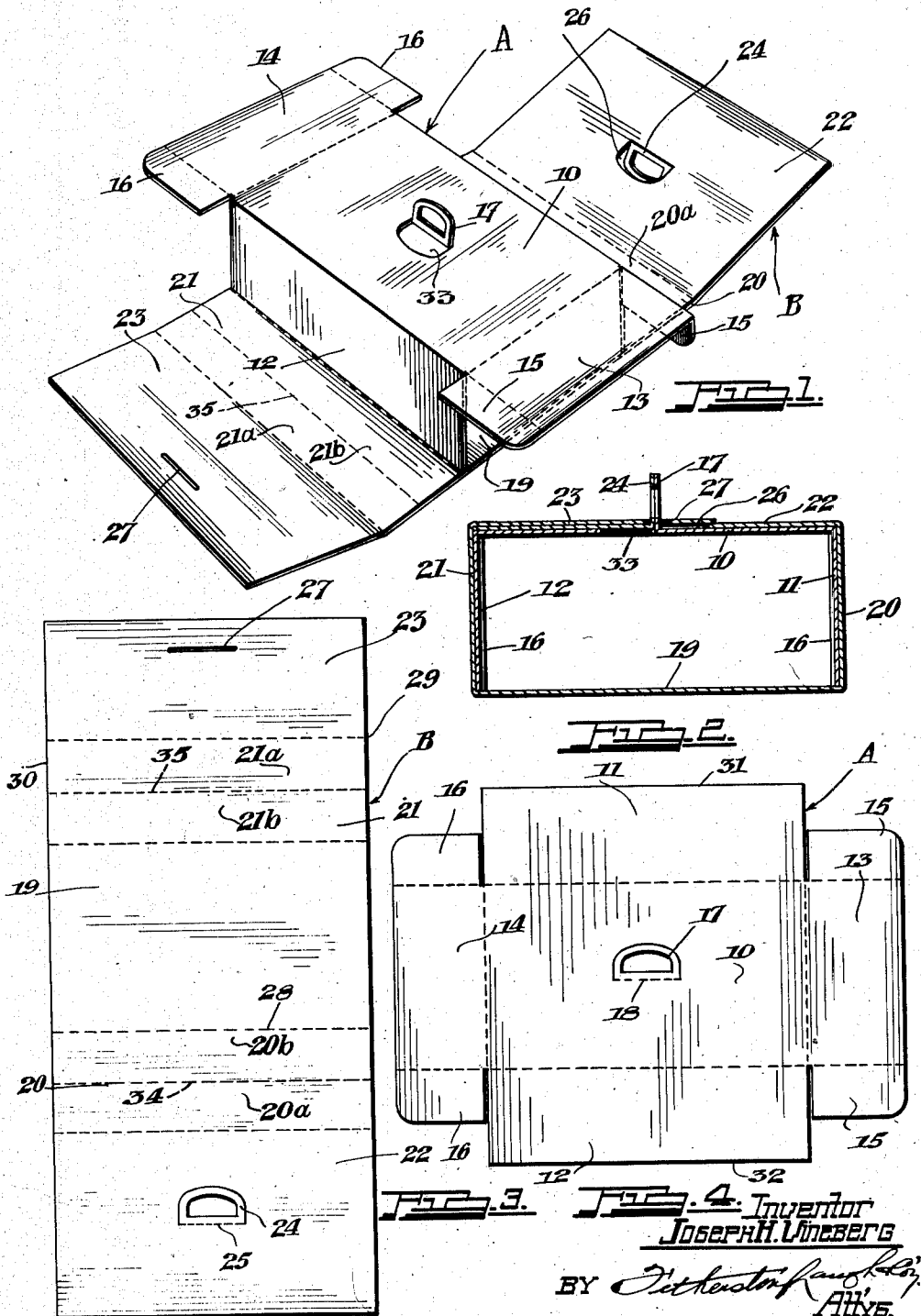
Oct. 23, 1945.

J. H. VINEBERG

2,387,482

BOX

Filed March 24, 1944



UNITED STATES PATENT OFFICE

2,387,482

BOX

Joseph Hirsch Vineberg, Ottawa, Ontario, Canada

Application March 24, 1944, Serial No. 527,937

3 Claims. (Cl. 229—23)

This invention relates to boxes, particularly for light articles such as hats.

Prior designs of boxes have attempted to provide such boxes from a single piece of material or have been based on the use of two members permanently connected to each other. The difficulty with designs based on a single piece of material is that the shape of the piece must necessarily be irregular and therefore involves substantial waste in cutting, thus increasing the ultimate price of the box. On the other hand, designs based on two members permanently attached together, although they save material by comparison with designs using a single piece of material, cost at least as much or more than the latter designs because of the high cost of effecting the permanent attachment, whether this be done by gluing or stapling. The box of the present invention has been designed to obtain the advantages of both the previous designs mentioned without the attendant disadvantages. It eliminates the waste of material necessitated by the one-piece design but involves none of the extra expense of the two-member design referred to above.

The box, according to the invention, is composed of an inner member and an outer member. The inner member has a top section, side sections, end sections, with flaps along the side edges thereof and a handle formed from the material of the top section substantially in the centre thereof. The outer member has a bottom section on which rest the bottom edges of the side sections of the inner member, side sections which overlie the side sections of the inner member, and two top sections each overlying more than one-half the width of the top section of the inner member, openings being provided in these two top sections through which the handle extends. When the box is closed the flaps of the end sections of the inner member lie inside the side sections of the outer member, preferably between these side sections and the side section of the inner member but, if desired, inside the side sections of the inner member. The box is preferably provided with two cooperating handles. In this case the second handle is formed from the material of one of the top sections of the outer member. The handle on the top section of the inner member extends up through the inner opening formed by the handle on the outer member, and the two handles together extend through the opening in the other top section of the outer member.

The invention will be more fully described by reference to the attached drawing which illus-

trates a construction in accordance with it and in which:

Figure 1 is a perspective view of the two members of the box ready for assembly,

5 Figure 2 is a cross section of the box fully assembled,

Figure 3 is a plan view of the outer member spread out, and

10 Figure 4 is a plan view of the inner member spread out.

As shown in the drawing the box is composed of an inner member A and an outer member B. The inner member A has a top section 10 flanked on opposite sides by side sections 11 and 12 and at opposite ends by end sections 13 and 14. Flaps 15 extend along the side edges of end section 13 and flaps 16 along the side edges of end section 14. Formed from the material of the top section 10, substantially in the centre thereof, is a handle 17 adapted to be folded upward out of the plane of the section along the fold line 18 to leave an opening 33 in the section.

The outer member B includes a bottom section 19, flanked by side sections 20 and 21, with top sections 22 and 23 extending respectively from the outer edges of the side sections 20 and 21. Each of these top sections is at least more than half as wide as the top section 10 of the member A, and in practice the section 22 may be the full width of the section 10 and the section 23 somewhat less wide. Formed from the material of the top section 22 is a handle 24, like the handle 17, adapted to be folded out of the plane of the section along a fold line 25 to leave an opening 26. In the section 23 is an opening 27, preferably in the form of a slot.

When the box is to be assembled the outer member B is laid out substantially flat, as shown in Fig. 1. The side sections 11 and 12 of the inner member A are folded down at right angles to the top section and the member A is then placed on the member B so that the lower edges 31 and 32 of the side sections 11 and 12 respectively rest on the bottom section 19 of the member B. This is the stage of assembly shown in Fig. 1. The next step is to fold up the side section 20 of the member B to overlie the side section 11 of the member A, and then fold the top section 22 of the member B to overlie the top section 10 of the member A. It will be seen from the drawing, and particularly from Fig. 2, that the handles 17 and 24 are so placed on the sections 10 and 22 respectively that the handle 17, when folded up, extends up through the opening 26 closely alongside the handle 24. Next, the side section 20 is

folded up to overlie the side section 12, and the top section 23 folded partially to overlie the top section 10, this movement bringing the opening 27 to a position where the handles 17 and 24 may extend through it. The handles thus secure the top sections 22 and 23 in place and hold the outer member B wrapped around the inner member A. It will be noted from Figure 7 that the section 23 is preferably just wide enough fully to cover the opening 26 in the section 22.

The final stage of closing the box is to turn down the end flap 13 until its lower edge meets the bottom section 19 and fold in the flaps 15 either between the side sections 12 and 21 and 11 and 20, or inside the side sections 11 and 12 respectively. The former is the preferable arrangement, although either is suitable, the essential requirement being that the flaps should be inside at least the side sections 20 and 21. The end section 14 and flap 16 are similarly dealt with and the box is then completely closed.

The box, thus formed, is perfectly satisfactory for the carrying of a great many light articles, such as hats, because these have no great weight which will tend to force the end flaps 13 and 14 open. The box is extremely cheap because it requires no gluing or stapling and, at the same time, involves very little waste material, the two members being substantially rectangular. They could in fact be completely rectangular if it were found desirable to have the flaps 15 and 16 as wide as the sections 11 and 12.

It will be noted that the sections 20 and 21 of the member B are scored along lines 34 and 35, respectively. These lines divide the sections into panels of equal width, 20a, 20b, and 21a, 21b, respectively, and enable the box to be flattened for shipment without being disassembled. If the box is to be shipped, it is assembled up to but not including the final stage described in the second preceding paragraph. At this stage of assembly the sides 11 and 12 are folded in underneath the top section 10 of the member A and the sections 20 and 21 of the member B are collapsed by folding them outwardly along the score lines 34 and 35 so that, when they are folded, the inner faces of the panels 20a and 21a overlie, respectively, the inner faces of the panels 20b and 21b. The box is now flattened and its width transversely of the top section 10 is the width of that section and half the width of each side sections 20 and 21. The side sections 13 and 14 may be left unfolded or, if desired, they may be folded back over the sections 22 and 23. The flaps 15 and 16 are preferably half as wide as the depth of the side sections 11, 12 and 20, 21, as appears from Fig. 4. Accordingly, the box when flattened as described is rectangular, so that shipping and storage is convenient and easy.

Setting up the box from the flattened condition just described is easily effected by pushing out the side sections 11 and 12 of the member A and straightening up the side sections 20 and 21 of the member B. This raises the top section 10 to its

normal height from the bottom section 19. The final stage of assembly is then effected as described above.

It will be obvious that, if desired, the side sections 20 and 21 could be collapsed inwardly along the score lines 34 and 35, instead of outwardly as described, but such an arrangement may not be as satisfactory as the flattened box may be of excessive thickness.

10 What I claim as my invention is:

1. A box composed of an inner member and an outer member, said inner member having a top section, side sections, end sections, flaps along the side edges of the end sections, and a handle formed from the material of said top section substantially in the centre thereof, said outer member having a bottom section on which rest the bottom edges of the side sections of said inner member, side sections overlying the side sections of said inner member, two top sections each overlying more than half the width of the top section of said inner member, and openings in said two top sections through which said handle extends, the flaps of said end sections lying inside at least the side sections of said outer member when the box is closed, the sole connection between said members being constituted by the extension of said handle through the openings in said two top sections of the outer member.

2. A box composed of an inner member and an outer member, said inner member having a top section, side sections, end sections, flaps along the side edges of the end sections, and a handle formed from the material of said top section substantially in the centre thereof, said outer member having a bottom section on which rest the bottom edges of the side sections of the said inner member, side sections overlying the side sections of said inner member, a top section overlying more than half the width of the top section of said inner member, a handle formed from the material of said top section of said outer member, the first mentioned handle extending up through the opening in the top section of said outer member formed by the second mentioned handle, a second top section of said outer member overlying more than half the width of the top section of said inner member and partially overlying the first mentioned top section of said outer member, and an opening in said second top section through which both said handles extend, the flaps of said end sections lying inside at least the side sections of said outer member when the box is closed, the sole connection between said members being constituted by the extension of said handle through the openings in said two top sections of the outer member.

3. A box according to claim 1, wherein the side sections of the outer member are scored longitudinally parallel to the edges of said sections connected to the bottom section, to divide said side sections into panels which may be folded to overlie each other.

JOSEPH HIRSCH VINEBERG.