F. B. DAVIDSON.

PARTITION MEMBER FOR MERCHANDISE RECEPTACLES.

APPLICATION FILED MAR. 16, 1914.

1,131,773.

Patented Mar. 16, 1915.

2 SHEETS—SHEET 1.

Fig. 1.

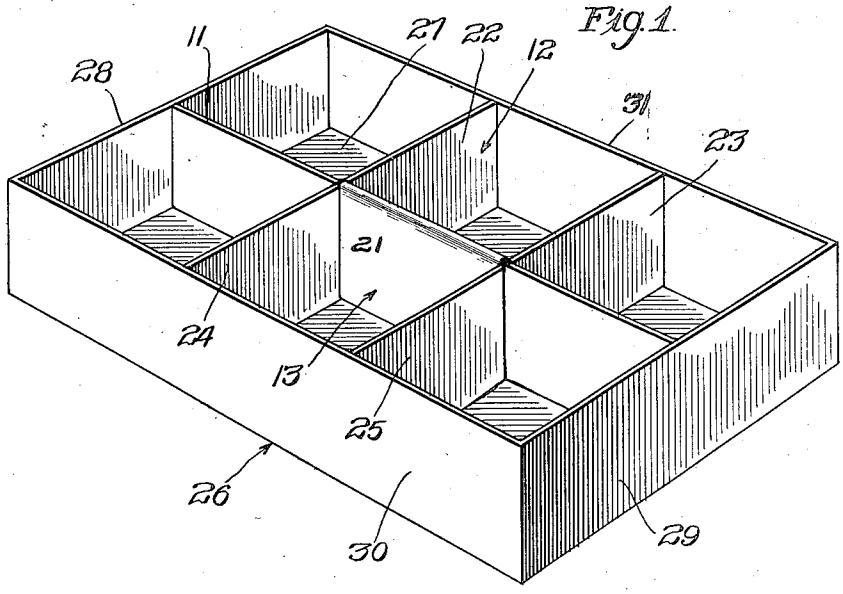


Fig. 2.

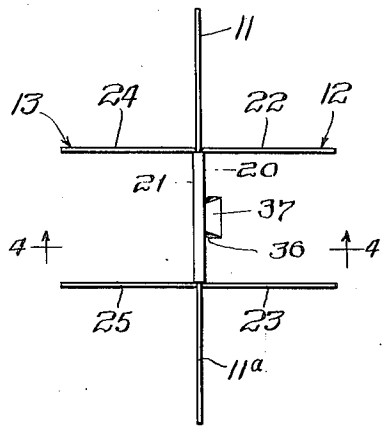
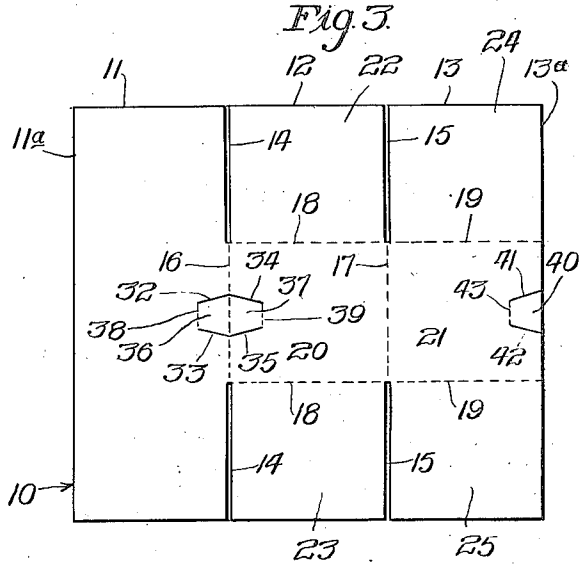


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 4.

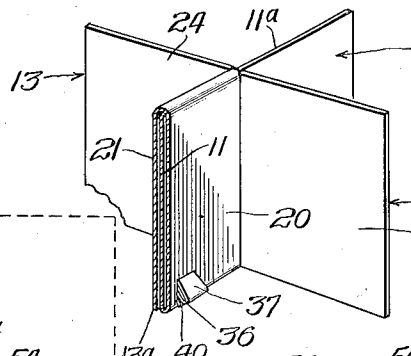


Fig. 5.

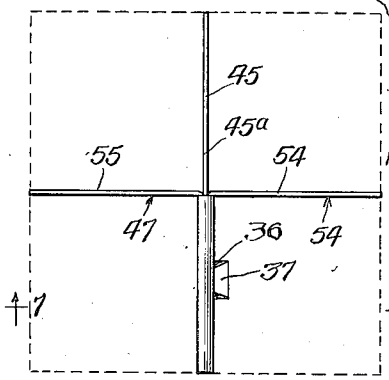


Fig. 6.

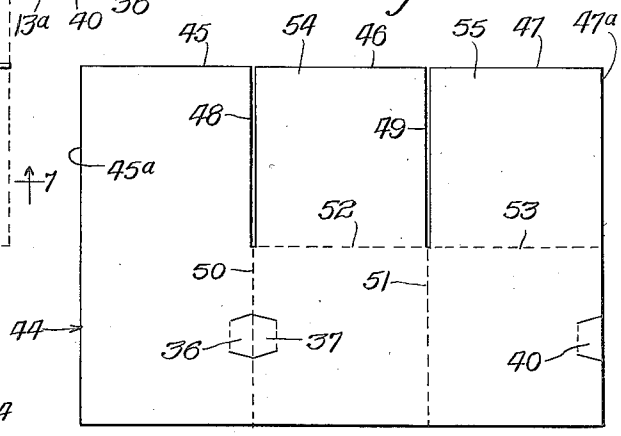


Fig. 7.

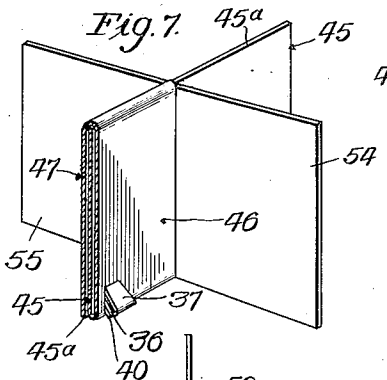


Fig. 8.

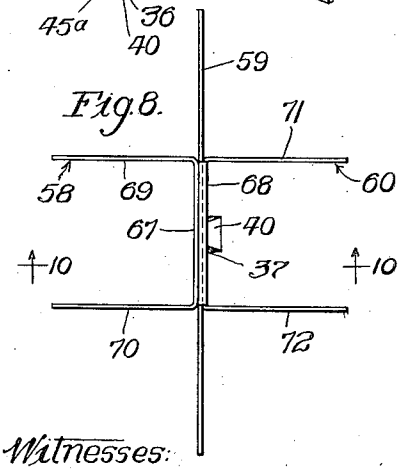


Fig. 9.

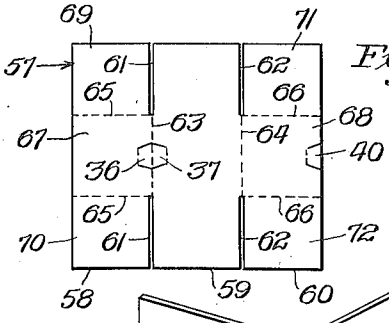
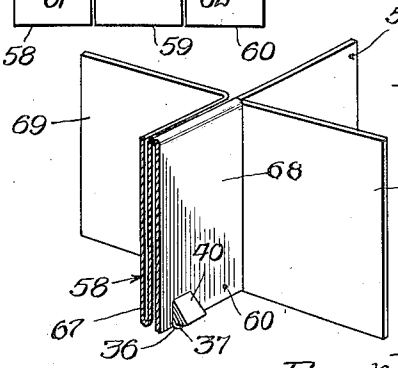


Fig. 10.



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UNITED STATES PATENT OFFICE.

FRANK B. DAVIDSON, OF MARSEILLES, ILLINOIS, ASSIGNOR TO HOWE AND DAVIDSON COMPANY, OF EAST ORANGE, N. J., A CORPORATION OF NEW JERSEY.

PARTITION MEMBER FOR MERCHANDISE-RECEPTACLES.

1,131,773. Specification of Letters Patent. Patented Mar. 16, 1915.

Application filed March 16, 1914. Serial No. 824,862.

To all whom it may concern:

Be it known that I, FRANK B. DAVIDSON, a citizen of the United States, and a resident of Marseilles, in the county of La Salle and State of Illinois, have invented certain new and useful Improvements in Partition Members for Merchandise-Receptacles; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in partition members for merchandise receptacles—such as cartons, boxes, trays and the like—of that class designed to divide the mechandise-receiving space of the receptacle into a plurality of compartments or cells, so that the article or articles in one cell or compartment will be separated from and prevented from intermingling with or coming into contact with and injuring the article or articles in the next and adjacent cells.

In its general features, a partition member constructed in accordance with my invention comprises a plurality of connected sections which are folded one upon the other in overlapping relation, and one of the sections is separated from the other section along a part of the length of the sections and provided with a folding line transverse to the line of fold between the sections to form a flap which is bent into a position transverse to the folded sections. The partition with its parts in the position stated and vertically disposed is placed in a compartment or the mechandise-receiving space of a receptacle, and serves to divide said compartment or the said space of said receptacle into a plurality of compartments or cells. The partition member is formed from a cut and scored blank made from a single sheet of fiber-board or other relatively stiff material, thus enabling the partition member to be stored and shipped in its flat form and to be readily set up for use.

The invention includes also the blank from which the partition member is formed.

The invention consists in the matters hereinafter described and more particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a perspective view of a receptacle or compartment having a partition member constructed in accordance with my invention placed in the merchandise-receiving space thereof and dividing such space into a plurality of compartments or cells; Fig. 2 is a plan view of the partition member shown in Fig. 1; Fig. 3 is a plan view of a cut or scored blank from which the partition member shown in Figs. 1 and 2 is formed; Fig. 4 is a sectional view, taken on line 4—4 of Fig. 2, with parts shown in perspective; Fig. 5 is a plan view of a partition member embodying the features of my invention, and so constructed as to divide the space of the receptacle or compartment in which it is placed into a lesser number of compartments or cells than in the case of the partition member shown in Figs. 1 to 4; Fig. 6 is a plan view of a cut and scored blank from which the partition member shown in Fig. 5 is formed; Fig. 7 is a sectional view on line 7—7 of Fig. 5, with parts shown in perspective; Fig. 8 is a plan view of another form of partition member embodying the main features of my invention; Fig. 9 is a plan view of a cut and scored blank from which the partition member shown in Fig. 8 is formed; and Fig. 10 is a sectional view, taken on line 10—10 of Fig. 8, with parts shown in perspective.

Referring to the drawings and first more particularly to Figs. 1 to 4, both inclusive, wherein is illustrated in detail the preferred form of partition member embodying the main features of my invention, 10 (Fig. 3) designates a blank in flat form from which the partition member is formed. Said blank, as shown, is rectangular in form and is divided transversely by means of lines of severance or cuts and score or folding lines to be presently referred to, into three connected rectangular sections 11, 12 and 13, all of which are of the same length and each substantially equal in width. The section 12 in the flat blank is interposed between and connected with the sections 11 and 13. The portions of the section 12 on opposite sides of its central portion are separated or divided from the corresponding portions of the sections 11 and 13 by inwardly extending cuts or lines of severance 14, 15. Said cuts 14, 14 are on one side of the section 12 and parallel with the cuts 15, 15 on the opposite side of said section 12. All of said cuts are parallel with the outer longitu-

dinal edges 11ª, 13ª of the sections 11 and 13, respectively. As shown, the cuts 14, 15 open through the edges of the blank at right angles to the longitudinal edges 11ª, 13ª and extend inwardly toward each other approximately one-third of the length of the sections. The inner ends of said cuts 14, 14 and 15, 15, at each side of the section 12, are connected by score or folding lines 16, 17 forming continuations of the cuts which they connect and dividing the connected or joined central parts of the sections. When the blank is bent or folded into completed or set up form the sections are folded on said score lines 16, 17. The sections 12 and 13 are each divided into three parts by score or folding lines 18, 19 extending transversely of the sections and at right angles to and intersecting the score lines 16, 17 at the inner ends of the lines of severance or cuts 14, 15. As shown, the score lines 18, 19 of each section are continuations of each other and are transverse to folding lines 16, 17 between the several sections. The score lines 18, 19 divide the sections 12, and 13 each into a central part, 20, 21, and two end flaps 22, 23 and 24, 25, respectively. The central part 20 of the section 12 is bounded by the score lines 16, 17 and 18, 18 and is connected with the central portion of the non-scored section 11 on one side of said section 12, and with a central part 21 of the section 24 on the opposite side of said section 12. The central part 21 of the section 13 is bounded by score lines 17, 19, 19 and the central part of the outer edge 13ª of said section 13. The score lines 18, 19 are at the base of the end flaps of the respective sections and said flaps are bent on said score lines when the partition member is completed or fully set up. As shown in the drawings, the section 12 is provided with the end flaps 22, 23, and the section 13 with the end flaps 24, 25.

When a partition member is to be set up or formed from a blank cut and scored in the manner shown in Fig. 3, the non-scored section 11 is first folded along the score line 16 toward the section 13 and over and upon the adjacent and connected section 12. The section 13 is then folded along the score line 17 over and upon the non-scored section 11, the latter now being located between the other sections 12 and 13. The sections being substantially equal in length and width, the sections overlap each other, and the sections 12 and 13 constitute the exterior sections or are on opposite sides of the section 11. In the set up partition member the non-scored section 11 becomes the intermediate or centrally located section of said partition member. After the sections 11, 12 and 13 are folded as stated. the flaps 22, 23 of the section 12 and the flaps 24, 25 of the section 13 are bent laterally and outwardly along the score lines 18, 19 and extend usually at right angles to the plane of the sections to which said flaps are joined. The partition member in set up form is placed in the box or compartment with the outer ends of the section 11 and of the flaps 22, 23, 24 and 25 in abutting relation to the four sides or walls of the box or compartment; the non-scored section 11, with the central parts 20 and 21 of the other sections folded against its central part and forming a straight, central partition extending between the end walls 28, 29 of the box, while the integral flaps 22, 23, 24 and 25 form transverse partitions extending laterally from such folded or overlapped central partition to the side walls 30, 31 of said box. (See Fig. 1.) As shown in said Fig. 1, the partition member rests on the bottom wall 27 of the receptacle or box.

The overlapped central portions of the sections of the partition member shown in Figs. 1 to 4 will be held in such relation and be prevented from spreading apart when the partition member is in the receptacle or box by the ends of the flaps, 23, 24 and 24, 25 abutting against the side walls of the receptacle or box, but, in order to maintain the overlapped central portions of the partition member in such relation and prevent such portions from separating before the partition member is placed in the box, and thereby facilitate the placing of the set up partition member in the receptacle or box, I provide locking means for joining the overlapped central portions of the sections, as follows: As shown in Fig. 3, the section 11 is provided with converging cuts 32, 33 extending into the central part of said section 11 for a short distance from the score line 16. The connected section 12 is also provided with similar converging cuts 34, 35 extending a short distance into the central part of the section 12 from the said score line 16, and meeting the cuts in the section 11 in the score line 16. The cuts just referred to form locking tongues 36, 37 on the respective sections 11 and 12. The section 13 is provided with a similar locking tongue 40 formed by converging cuts 41, 42 extending for a short distance into the central part of said section from the longitudinal edge 13ª thereof. The tongue 40 is so positioned that it overlaps and registers with the other tongues 36, 37 (see Figs. 2 and 3) when the sections are folded in overlapped position. The three tongues 36, 37 and 40 are adapted to be bent laterally out of the planes of the sections to which they are joined on the coinciding score lines 38, 39 and 43 at the bases of said tongues. Said tongues will preferably be made tapered in form and narrower at their bases than at their outer ends. When the sections are folded one upon the other in overlapped po-

sition, as shown in Fig. 4, and the overlapped tongues 36, 37, 40 are bent laterally out of the planes of the overlapped portions of the sections, as stated, the edge 13ª of the section 13 will be locked or held in engagement with the folded edge at the junction of the sections 11 and 12 by reason of the fact that the wider parts of the tongues extend beyond the narrower parts of the tapered openings in the folded portions of the sections.

The partition member shown in Figs. 5 to 7, both inclusive, embodies the main features of my invention, but the blank from which said partition member is formed is so scored and cut that when the partition member is set up and placed in a compartment or receptacle, the partition member will divide the space of the compartment or receptacle into a lesser number of compartments or cells than in the case of the partition member heretofore described and shown in Figs. 1 to 4. In Fig. 6, I have shown such a blank 44 in flat form, from which the partition member shown in Figs. 5 and 7 is formed. Said blank is, as in the case of the blank shown in Fig. 3, divided transversely into three connected sections 45, 46 and 47 by lines of severance or cuts 48, 49 extending inwardly from the same edge of the blank and on each side of the intermediate section 46. The cuts 48, 49 extend inwardly approximately one-half of the length of the sections and said cuts are continued by score or folding lines 50, 51. The sections 46, 47 are divided into two parts by score or folding lines 52, 53 intersecting the inner ends of the cuts 48, 49 in the same manner as the score lines 18, 19 heretofore referred to. The portions of the sections 46, 47 separated by the cuts 48, 49 constitute flaps 54, 55 which are adapted to be bent on the score lines 52, 53 into a position transverse to the folded sections. As in the case of the partition member shown in Figs. 1 to 4, the non-scored section 45, when the partition member is set up, is located between the sections 46 and 47, the latter being the exterior sections, and on each side of the section 45. The overlapped portions of the sections 45, 46 and 47 are maintained in such relation by means of locking tongues constructed in the same manner as those shown and described in Figs. 1 to 4, both inclusive, and indicated by the same reference characters. The partition member shown in Figs. 1 to 4 divides the space in the box into six cells, while the partition member shown in Figs. 5 to 7, when set up and placed in a receptacle or box, divides the box into four cells. When the partition member shown in Figs. 5 to 7 is set up and placed in a receptacle or box (shown in dotted lines in Fig. 5), the section 45 forms the straight central partition and its ends abut against those walls of the box between which said central section 45 extends. The flaps 54, 55 extend laterally from the folded parts of the partition member and abut, at their ends, against the other upright walls of the box.

In Figs. 8 to 10 both inclusive, I have shown a partition member which when set up will divide the space in the box or receptacle into the same number of compartments or cells as the partition member shown in Figs. 1 to 4 inclusive, except that the blank, from which the partition member shown in Fig. 8 is formed, is cut and scored in a different way than in the case of the blank shown in Fig. 3. As shown in Fig. 9, the blank 57 is divided transversely into three connected sections 58, 59 and 60 by means of transversely extending lines of severance or cuts 61, 62 and score lines 63, 64 arranged in the same manner as the similar parts shown in Fig. 3. The section 59 in the flat blank shown in Fig. 9 is located between the sections 58 and 60 and the latter two sections are folded against opposite sides of said section 59. Said sections 58 and 60 are each divided into a central section 67, 68 and two end flaps 69, 70 and 71, 72 by means of score lines 65, 66, respectively. Said flaps 69, 70 and 71, 72 are adapted to be bent laterally on the score lines 65, 66 into a position transverse to the folded parts of the sections and extend from opposite sides of the section 59 when the partition member is set up, and serve the same purpose as the flaps 22, 23, 24 and 25 hereinbefore referred to. In the case of the partition member formed from the cut and scored blank shown in Fig. 9, the section 59 is located between the outer sections 58 and 60, and the latter are joined to the upper and lower edges, respectively, of the non-scored section 59, as shown in Fig. 10. In order to prevent the overlapped portions of the sections 58, 59 and 60 from spreading apart when the partition member is set up, the partition member may be provided with fastening tongues constructed in the same manner as the tongues shown in Figs. 1 to 4, both inclusive, and such tongues are indicated by like reference characters.

The partition member above described has the advantage of being made from a flat blank which may be cut and scored as desired upon a cutting and scoring machine of that type employed for cutting and scoring blanks for foldable cartons, trays and the like.

While I have shown and described herein certain details of construction and arrangements of the several parts of the preferred form of my invention, it is understood that these may be changed and variously modified without departing from the spirit of my invention, and I do not wish to be lim-

ited to the details of construction and arrangements shown, except as particularly pointed out in the appended claims.

I claim as my invention:

1. In combination with a merchandise receptacle, embracing a bottom and upright side and end walls, a partition member adapted to be inserted in said receptacle for dividing the space formed between said upright walls into a plurality of compartments or cells, said partition member comprising a plurality of connected sections which are folded one upon the other in overlapping relation, one of said sections being adapted to extend between the end walls, and the other of said sections being provided with a flap, which is bent into a position transverse to the folded sections, said flaps being located intermediate the ends of the partition member and being adapted to extend between the section to which it is connected and the adjacent upright wall of the receptacle.

2. A partition member for merchandise receptacles, comprising a plurality of connected sections which are folded one upon the other in overlapping relation, one of said sections being provided with an integral flap which is bent into a position transverse to the folded sections, and located intermediate the ends of the partition member, and locking means for holding together the overlapped portions of said sections, embracing a locking tongue on one of said sections, adapted to enter a locking notch in the other of said sections.

3. A partition member for merchandise receptacles, comprising at least two connected sections which are folded one upon the other in overlapping relation, one of said overlapping sections being separated from the other along a part of the length of the sections and being provided with a folding line transverse to the line of fold between the sections, to form a flap which is bent into a position transverse to the folded overlapping sections, and locking means for holding together the overlapped portions of said overlapping sections.

4. A partition member for merchandise receptacles, comprising a plurality of connected sections which are folded one upon the other in overlapping relation with one of said sections located between and overlapped by the other of said sections, and each of the exterior sections being provided with a flap which is bent into a position transverse to the folded sections.

5. A partition member for merchandise receptacles, comprising a plurality of connected sections which are folded one upon the other in overlapping relation with one of said sections located between and overlapped by the other sections, said sections being separated from each other along a part of the length of the sections, and each of the exterior sections being provided with at least one folding line transverse to the line of fold between the sections, to form flaps which are bent into a position transverse to the folded portions of said sections.

6. A partition member for merchandise receptacles, comprising a plurality of connected sections which are folded one upon the other in overlapping relation with one of said sections located between and overlapped by the other of said sections, each of the exterior sections being provided with a folding line to form flaps which are bent into a position transverse to the folded sections, and locking means for holding together the overlapped portions of said sections embracing a locking tongue on one of said exterior sections adapted to enter a locking notch in the other of said sections.

7. A partition member for merchandise receptacles, comprising a plurality of connected sections which are folded one upon the other in overlapping relation with one of said sections located between and overlapped by the other of said sections, each of the exterior sections being separated from the centrally located section along a part of the length of the sections, and each exterior section being provided with end flaps which are bent into a position transverse to the folded sections on folding lines transverse to the lines of fold between the sections.

8. A blank for a partition member consisting of a rectilinear piece of sheet material divided into three parallel sections, in part by lines of severance and in part by folding lines, said sections being adapted to be folded one over and upon the other in overlapping relation with one of the sections located between and overlapped by the other of said sections, each of the exterior sections being provided with a folding line transverse to the lines of severance and folding lines between the sections and forming flaps adapted to be bent into a position transverse to the folded overlapping sections.

In testimony, that I claim the foregoing as my invention I affix my signature in the presence of two witnesses, this 11th day of March A. D. 1914.

FRANK B. DAVIDSON.

Witnesses:

EUGENE C. WANN,

HARRY IRWIN CROMER.