Dec. 3, 1929. W. C. ROBERTS 1,738,208

DISPLAY UNIT AND SUPPORT

Filed May 8, 1929 2 Sheets-Sheet 1

Fig. 1

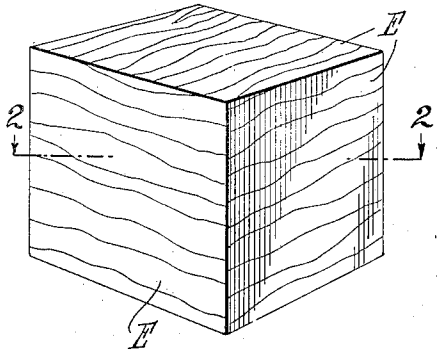


Fig. 2

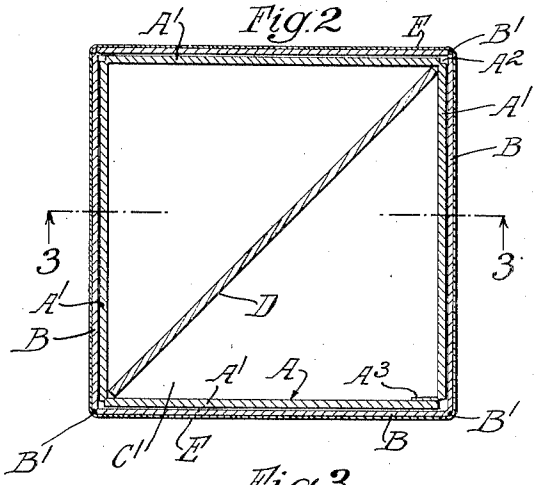


Fig. 3

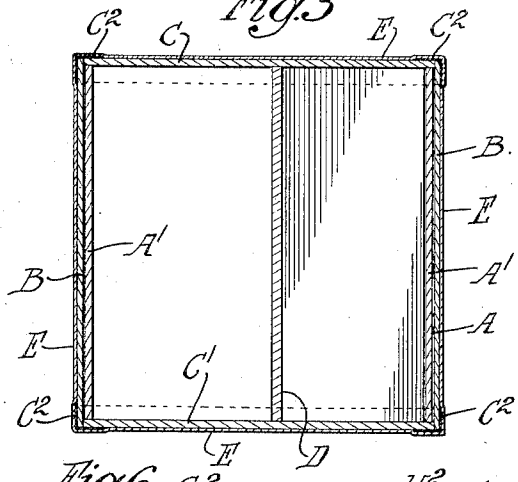


Fig. 4

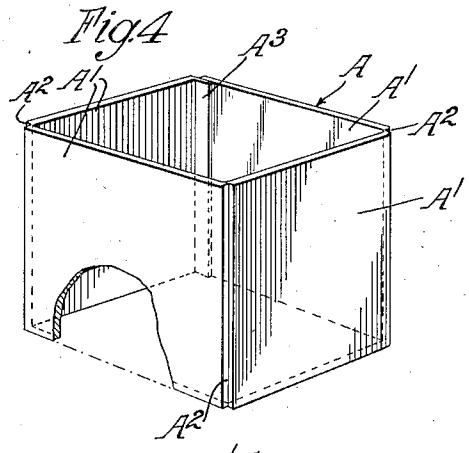


Fig. 5

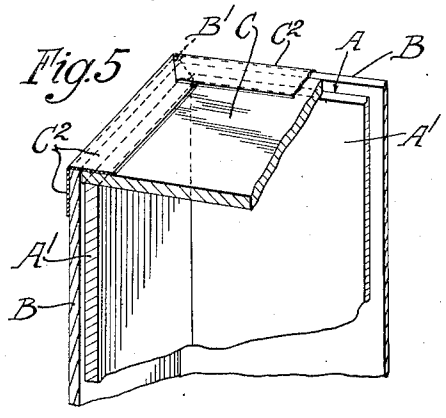


Fig. 6

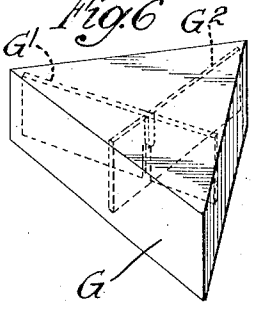
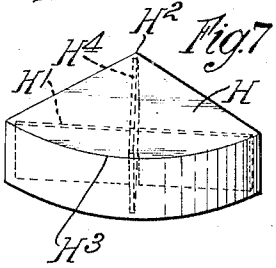


Fig. 7



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Fig. 8

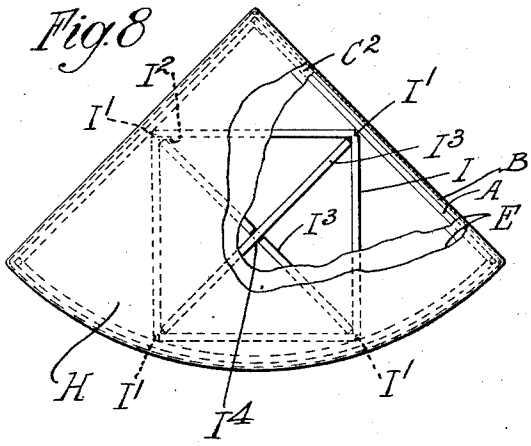


Fig. 9

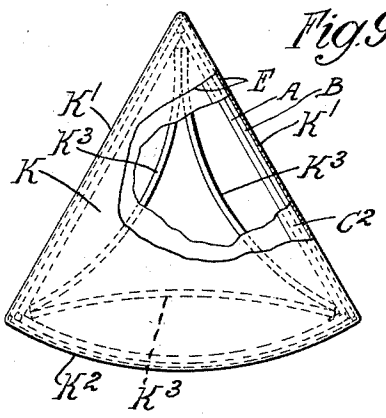


Fig. 10

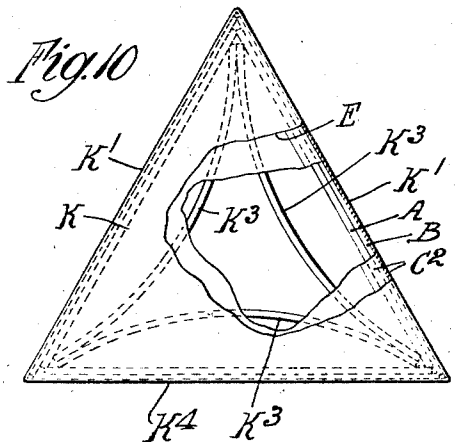
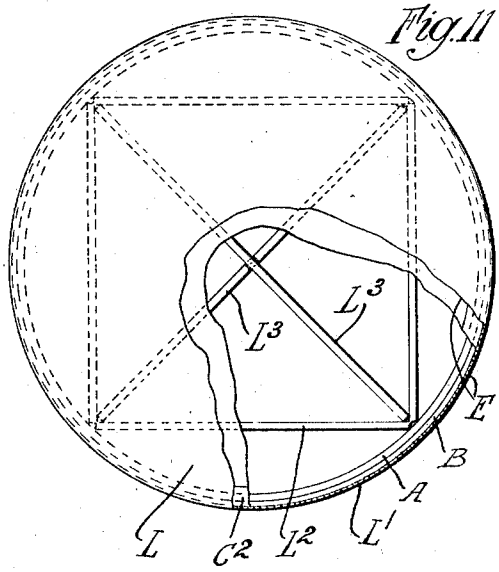


Fig. 11



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Patented Dec. 3, 1929 1,738,208

UNITED STATES PATENT OFFICE

WILLIAM C. ROBERTS, OF CHICAGO, ILLINOIS, ASSIGNOR TO ZINKE-ROBERTS CO., OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS

DISPLAY UNIT AND SUPPORT

Application filed May 8, 1929. Serial No. 361,368.

My invention relates to a display support, or block or unit for use as or with a display support. It has been practice in the past to employ wooden blocks for the support of displays, for example such as are employed in the windows of stores. Frequently heavy goods are displayed and one or more blocks are employed, large numbers of blocks often being combined to make pedestals, supporting stages, steps and the like, on which the goods are displayed. One object of the present invention is to provide a substitute unit or block which may be made of a lighter, cheaper material, such as paper, fiber, press board or equivalent material. An object is to make a substitute block which shall be not only cheaper but lighter in weight and easier and cheaper to ship, but which shall nevertheless have sufficient strength to support weights which in the past have been placed upon solid wooden blocks. Another object is to provide a light unit which shall give the appearance of the wood which is usually employed as the material for such units. Another object is the provision of an improved method of manufacturing such a unit as is above set out.

Other objects will appear from time to time in the course of the specification and claims.

I illustrate my invention more or less diagrammatically in the accompanying drawings, wherein—

Figure 1 is a perspective view of a block or unit;

Figure 2 is a horizontal section on the line 2—2 of Figure 1;

Figure 3 is a section on the line 3—3 of Figure 2;

Figure 4 is a skeleton perspective of the interior rim or shell of the block shown in Figure 1;

Figure 5 is a skeleton perspective of a corner of the completed block or unit, with the outer or finishing covering removed;

Figure 6 and Figure 7 are skeleton perspectives of variant forms or units; and

Figures 8, 9, 10 and 11 are plan views, with parts broken away, of various forms or units.

Like parts are indicated by like symbols throughout the specification and drawings.

Referring to the figures herein, and considering the unit in terms not only of its structure but of its method of assembly I may start with the inner rim shown in Figure 4. This rim, generally indicated as A, is preferably formed with a plurality of sides A^1 which may be formed from a single sheet or board of paper, fiber or the like, the sides being separated for example by the scores A^2. A^3 indicates any suitable means, for example an overlap or tongue, whereby the rim is assembled or closed. Assuming that such a rim has been completed it may be placed in an outer rim generally indicated as B which is preferably similarly formed of lighter stock, the corner scores B^1 being correspondingly lighter or shallower and narrower than the heavy scores A^2 in the heavier material of the inner rim A.

Assuming that the rims A and B have been associated, it will be clear, as in Figure 3 that, since the rim A is shorter than the rim B there is space, within the rim B, for the heads or top and bottom members C C^1 to be inserted. These abut against the upper and lower edges respectively of the rim A, but lie within the rim B, thus producing a minimum disturbance or irregularity in the contour or surface of the completed unit. When the rims have been associated and the heads C C^1 put in place, I may apply any suitable securing means, for example the flexible adhesive strip C^2, for securing the parts in the position in which they are shown in Figures 2, 3 and 5. I do not wish to be limited to this particular method of the securing of parts but find it practical, as I can employ an adhesive strip of thin paper which is sufficiently strong to hold the parts in position and which scarcely shows through or deforms the final covering later applied.

In the employment of units of large size I find it preferable to employ an interior reinforcement or bracing. I may for example employ one or more transverse sheets or rectangles of board or fiber, such as the support D shown in Figure 2. Where the unit itself is a small rectangle I may be able to

dispense with the support, but preferably employ at least one. In the larger unit I may add another support, shown as D^1 in Figure 2, the supports D, D^1 being notched or slotted to interlock.

The final structure I then cover with an outer layer indicated as E. Since it is generally desirable to simulate wood I may employ an outer covering of paper or the like which has the appearance of wood. I find it highly advantageous to employ a very thin veneer of wood, which has the thickness of paper and which may indeed be backed by thin paper and may be applied like paper. By applying this thin layer of veneer to the exterior of the block and by so applying the paper to each side of the block as to give it the appearance of grain natural to the shape of the block I am able very successfully to simulate a wood block.

Referring for example to Figures 6 and 7, I may build my unit in a wide variety of forms, these various units being used alone or in varying number to build up whatever form of platform or support is desired. In Figure 6 I indicate a triangular unit generally indicated as G with the interlocked braces G^1 and G^2, each extending from the intermediate portion of one side of the unit to the opposite corner.

Referring to Figure 7 the unit generally indicated as H has an arcuate side and I indicate a transverse support H^1 extending from corner to corner along the arcuate side. As an indication of the flexibility of my method and the strength of the units produced, were the unit of Figure 6 to be made considerably larger a third support, or further supports could be added, interlocking with those already in position. Similarly if the unit of Figure 7 is increased in size an additional support could be run from the corner H^2 to the curved face H^3 as shown in dotted line at H^4.

Referring to Figure 8 the outer unit is shown as of the same shape as that shown in Figure 7. Assuming it to be greater in dimensions I may employ a variant form of inner support which includes the reinforcing rim or rectangle generally indicated as I, herein shown as having four sides, the sides being separated as by the scores I^1, the two free ends being joined as by the flap I^2. Within the rectangle I I may position one or more transverse supports I^3 which may intersect as at I^4, they being slotted at that point to fit together. It will be observed from Figure 8 that the corners of the member I abut against opposed sides of the outer member H and the members I^3 fit snugly within the corners of the inside of the member I. Thus all the parts are relatively firmly held in position. The members I and I^3 being of like height, they directly support the top of the member H and this support is well distributed throughout the area, in such fashion that no intermediate weak zones or areas are left. The result is a unit which can be built of considerable size, but which is none the less strong enough to support the weight of a man walking upon it or the weight of a device, when such device is displayed, of several hundred pounds.

Referring to Figure 9 I indicate generally a unit K formed in the same manner as the units above described and having two plane sides K^1 and one arcuate side K^2. In order to support the top of the unit K I may provide interior bracing or reinforcing in the form of fiber sheets or members K^3 each being curved, as shown in Figure 9, and extending from one corner to an adjacent corner of the unit. The slight curvature braces them firmly in place and also provides a distribution of the supports throughout the space or area to be supported.

Figure 10 illustrates a form of unit identical with Figure 9 save for the substitution for the arcuate side K^2 of another plane or flat side K^4. The members K^3 are distributed in the same manner as shown in Figure 9.

In the form of Figure 11 I form an outer unit L having the cylindrical wall L^1. Mounted within it is the reinforcing rectangle or quadrangle L^2 which may be identical with the quadrangle I shown in Figure 8 and which is provided with similar interior reinforcing members L^3.

The method of manufacture of my unit forms an important feature of the invention and may be described as follows. The units are cut, scored or creased, according to the size of the particular unit. This cutting or scoring is performed on whatever stock is employed, be it paper, fiber, press board, card board or equivalent material. Assuming that the form of Figure 1 is to be made, the inner and outer rims are cut to size and scored and the various other units, such as the interior reinforcing are also cut and scored. The cutting and scoring portions being complete, the material is next set up. The inner rim A is pieced together with glue or some similar adhesive, the flap A^3 being secured to the edge of the adjacent side. The outer rim B is then similarly assembled and the inner rim is dropped within the completed outer rim. The inner rim being of lesser height than the outer rim, the tops and bottoms, previously cut to size, are set in and trimmed or positioned by means of the strips C^2. If supports are employed the supports are previously set in place within the inner rim A before the tops are inserted in position. After the unit is assembled and is held in position by means of the tape or adhesive member C^2, the covering material which may for example be a combination of paper and Japanese wood veneer, is applied to the units

and glued in place by means of a non-warping glue.

It will be realized that whereas I have described and shown a practical and operative device, nevertheless many changes might be made in the size, shape, number and disposition of parts without departing from the spirit of my invention. I therefore wish my description and drawings to be taken as in a broad sense illustrative and diagrammatic rather than as limiting me to my specific showing. I also wish it to be understood that whereas I have described the preferred method of preparing my unit, that I do not wish to be limited step by step to this particular method.

The use and operation of my invention are as follows:

I desire to produce a display block which shall be light and yet strong, which shall be of cheap material, and yet give the appearance of wood. A double problem is involved, namely to maintain the proper appearance of the exterior of the unit and secondly to provide that exterior with an adequate supporting interior. It is for this reason that I employ an inner and outer box rim. The inner rim A may be made as robust as is necessary and any desired reinforcing or bracing, for example the members D D^1 may be positioned within it. The outer box, of thinner stock, to a considerable extent aids in holding the inner supporting structure in position but it also serves to provide a smooth, regular base for the application of the finishing material, wood veneer or the like. This veneer is applied evenly over the entire face of the block. By employing a thin and therefore lightly scored exterior rim, by setting the covers or heads within this exterior rim, and by using thin adhesive strips to hold the heads in place, I reduce to a minimum the disturbance or irregularity of form of the exterior of the unit. There is no heavy scoring to show through the thin outer finish or wood veneer, and no distortion at the junction of the heads and the outer rim.

I am thus able to imitate in cheap material a wood block which not only has the outer appearance of the previously used wood blocks but also has sufficient strength to support the weight which would normally be applied to such blocks. My units are light, cheap, easy to handle, cheap to ship, and almost as durable as wood blocks. Their cost is only a fraction of the cost of the original wood block.

I claim:

1. A support unit of predetermined shape for use in connection with other units of predetermined shapes to form a display stand, said unit including an inner rim of fibrous material, an outer rim of fibrous material, the outer rim being slightly higher than the inner rim, heads or covers set in the top and bottom of the outer rim and resting against the upper and lower edges of the inner rim the difference in height of inner and outer rim being such as to render the heads substantially flush with the upper and lower edges of the outer rim, adhesive securing means for holding the heads in position, and an outer covering laid evenly over the outer rim and heads.

2. A support unit of predetermined shape for use in connection with other units of predetermined shapes to form a display stand, said unit including an inner rim of fibrous material, an outer rim of fibrous material, the outer rim being slightly higher than the inner rim, heads or covers set in the top and bottom of the outer rim and resting against the upper and lower edge of the inner rim the difference in height of inner and outer rim being such as to render the heads substantially flush with the upper and lower edges of the outer rim, adhesive securing means for holding the heads in position and an outer covering laid evenly over the outer rim and heads, and bracing means within the inner rim, extending across the interior of said inner rim.

3. A support unit of predetermined shape for use in connection with other units of predetermined shapes to form a display stand, said unit including an inner rim of fibrous material, an outer rim of fibrous material of lighter gauge than the inner rim, the outer rim being slightly higher than the inner rim and conforming closely thereto, heads or covers set in the top and bottom of the outer rim and resting against the upper and lower edges of the inner rim, the difference in height of inner and outer rim being such as to render the heads substantially flush with the upper and lower edges of the outer rim, adhesive securing means for holding the heads in position, and an outer covering laid evenly over the outer rim and heads.

4. A support unit of predetermined shape for use in connection with other units of predetermined shapes to form a display stand, said unit including an inner rim of fibrous material, an outer rim of fibrous material of lighter gauge than the inner rim, the outer rim being slightly higher than the inner rim and conforming closely thereto, heads or covers set in the top and bottom of the outer rim and resting against the upper and lower edges of the inner rim, the difference in height of inner and outer rim being such as to render the heads substantially flush with the upper and lower edges of the outer rim, adhesive securing means for holding the heads in position, and an outer covering laid evenly over the outer rim and heads, and interior bracing means extending across the interior aperture of the inner rim and held against movement in relation thereto.

5. A support unit of predetermined shape for use in connection with other units of pre-

determined shape to form a display stand, which includes an inner rim of fibrous material, an outer rim of fibrous material, heads or covers set in the top and bottom of the outer rim and abutting against the upper and lower edges of the inner rim, adhesive securing means for holding the heads in position, interior strengthening means within the inner rim, extending across the inner aperture thereof, and an outer covering laid evenly over the outer rim and heads, simulating the material to be imitated.

6. A support unit of predetermined shape for use in connection with other units of predetermined shapes to form a display stand, said unit including an inner rim of fibrous material, an outer rim of fibrous material, the outer rim being slightly higher than the inner rim, heads or covers set in the top and bottom of the outer rim and resting against the upper and lower edges of the inner rim, the difference in height of inner and outer rim being such as to render the heads substantially flush with the upper and lower edges of the outer rim, adhesive securing means for holding the heads in position, and an outer covering laid evenly over the outer rim and heads, and interior reinforcing including a flat sheet of fibrous material extending across the aperture of the inner rim and in contact with the walls of the inner rim and with the heads.

7. A support unit of predetermined shape for use in connection with other units of predetermined shapes to form a display stand, said unit including an inner rim of fibrous material, an outer rim of fibrous material, the outer rim being slightly higher than the inner rim, heads or covers set in the top and bottom of the outer rim and resting against the upper and lower edge of the inner rim the difference in height of inner and outer rim being such as to render the heads substantially flush with the upper and lower edges of the outer rim, adhesive securing means for holding the heads in position, and an outer covering laid evenly over the outer rim and heads, and a reinforcing means positioned within the inner rim and of like height, and extending from one corner to another corner of said inner rim.

Signed at Chicago, county of Cook and State of Illinois, this 6 day of May, 1929.

WILLIAM C. ROBERTS.