Nov. 8, 1955 A. JANOWITZ 2,722,979

PANELS

Filed March 28, 1952

Fig. 1

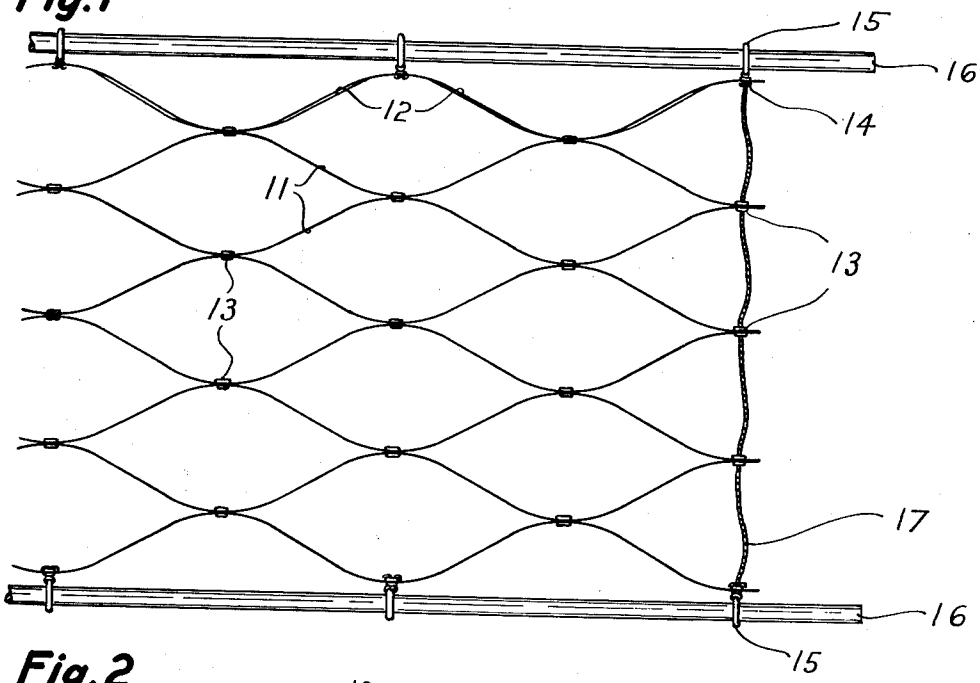



Fig. 2

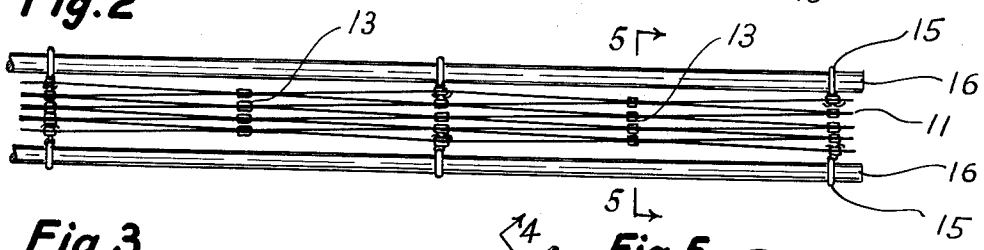



Fig. 3

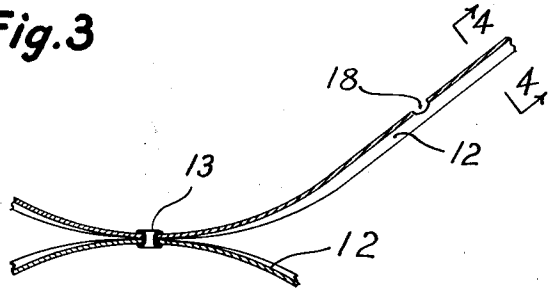
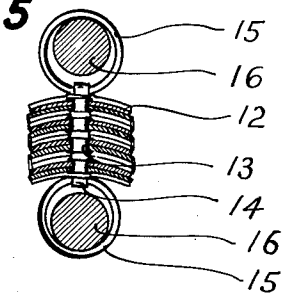



Fig. 4




Fig. 5




Arnold Janowitz
INVENTOR.

BY Armand E. Mattern
ATTORNEY

United States Patent Office

2,722,979

Patented Nov. 8, 1955



2,722,979

# PANELS

Arnold Janowitz, New York, N. Y.

Application March 28, 1952, Serial No. 279,019

3 Claims. (Cl. 160—87)

This invention relates to improvements in panels. More particularly the invention relates to improvements in expansible panels.

It is an object of this invention to provide panels of this kind which can be very easily collapsed for storage in small space when not in use, and which may be expanded to many sizes from a few inches to ten feet or over in height.

It is another object of this invention to provide expansible panels of this kind which can be opened out to form attractive decorative designs and effects for use as backgrounds for store display and similar purposes, for instance as a background "spot" before which a store mannequin can be posed for display purposes or for photographing or sketching for reproduction purposes.

Similarly, the panels according to the invention can be used as peek-through grills, behind which a mannequin or display is shown, furniture displayed, etc.

Other uses are as window or space dividers to separate any space into two or more individual rooms, or spaces, or displays, and the panels are also especially formed to produce interesting light and shadow effects when used with suitable window lighting.

Units forming simple lattice-work designs are also a feature of the new panels, all of which have the advantage that they can be inexpensively made from readily obtainable material that is light and strong and yet not easily bent out of the attractive shapes and formations.

These and other objects of the invention will become apparent from the following specification and the drawings forming a part of the same.

The expansible panels according to the invention are made up from flexible ribbons, slabs, strips or slats of stiff material, such as sheet metal, plastic or the like, and assembled by means of fasteners, such as rivets, preferably of the hollow or eyelet type, in superposed position.

The slats, according to one embodiment of the invention, are thin of straight cross-section.

According to an improved embodiment of the invention, however, cambered slats are used having an arcuate cross-section. Similar metal strips are at present manufactured for use in measuring tapes and Venetian blinds and they are readily adapted for use in the manufacture of the new panels.

According to the invention, either the flat or cambered slats may be assembled by connecting the slats at intervals by fasteners, such as rivets, in such a manner that their longitudinal axes are all parallel. A lattice work of variable width is thereby obtained by pulling apart the two outermost slats and thus reforming the slats by bending the same lengthwise into sinusoidal shape.

In the drawings,

Fig.1 shows a front view of a panel according to the invention in expanded position;

Fig. 2 is a front view of the panel shown in Fig. 1 in collapsed position for storage purposes;

Fig. 3 shows a detail of Fig. 1 at an enlarged scale;



Fig. 4 is a cross-section along the line 4—4 in Fig. 3; and

Fig. 5 is a section at a slightly larger scale along the line 5—5 on Fig. 2.

The elements of the lattice work forming the panels according to the invention are designated in the drawings by **11** and **12**. Numeral **11** designates flat strips or slats, and numeral **12** designates cambered slats having a cross-section as shown in Fig. 4. All structural shapes of lattice work according to the invention may be obtained using either type of elements and the function of the lattice work and its features are essentially the same in both cases, but cambered slats **12** offer certain advantages, as will be described later.

In Fig. 1, the topmost element has been shown as a cambered slat **12** and the other elements as flat strips **11**, but this is only by way of illustration and all elements may be cambered or all flat.

Holes are punched in regular intervals into the slats at their centerlines and the elements **11** or **12**, respectively, are united by means of rivets **13** in the manner clearly shown in Figs. 1 to 5.

The rivets as shown are hollow tubes crimped over at both ends, so-called eyelets, but split rivets or plain rivets or other fasteners may be used. Rings **15** are attached to the outside elements by means of metal strips **14** or other fasteners, and rods **16** are inserted into the rings **15**.

Due to the rigidity of the elements **11** or **12**, the entire lattice work tends to assume the shape shown in Figs. 2 and 5. In this shape the lattice work can be easily stored or shipped. By gently pulling the rods **16** apart, the lattice work assumes various expanded shapes and can be adapted to the available space and to the merchandise to be be displayed.

If it is desired to limit the expansion, a cord **17** may be attached to the rods **16** and threaded through the eyelets **13**. If cambered slats **12** are used, they may be of thinner material and will be of greater lateral stiffness. They will also assure the return of the elements to the contracted shape of Fig. 2 even after expansion to considerable length and thus make possible to use the lattice work over and over again in various shapes.

As shown in Fig. 1 and Fig. 3, the slats will bend at the junction points **13** but will be practically straight beyond a certain distance from the junction points, depending upon the degree of expansion. In the vicinity of the junction points **13**, the cambered slats **12** will be practically flat but in the straight sections between the junctions they will assume their camber, as shown by the cross-section, Fig. 4. Generally speaking, the shape obtained by the use of cambered slats **12** is more pleasant than shapes obtainable with flat strips.

The goods to be displayed may be attached to the lattice work at the junctions **13** or by means of holes **18** provided between the junction points. Cambered slats **12** will carry more weight without deformation than flat strips **11**.

Although the invention has been described in connection with specific details of preferred embodiments thereof, it must be understood that such details are not intended to be limitative of the invention, except as set forth in the accompanying claims.

What I claim is:

1. An expandable panel comprising a plurality of parallel flexible members, each of said members being rigidly secured at regular intervals along its length to its adjacent members alternately and consecutively, a pair of rigid rods secured, respectively, to the outermost ones of said members and a slidable ring connection between the flexible members and the rigid rods, whereby upon pulling rigid rods apart from each other said members are dis-

tended and reduced in length, thereby forming a lattice work of variable length and breadth.

2. An expandable panel comprising a plurality of pairs of parallel flexible companion members being rigidly secured to each other at regular intervals along their length, each member of each of said pairs being secured to its adjacent companion member of its respective adjacent pair at points intermediate the connections between companion members, a pair of rigid rods secured to the outermost of said members, respectively, and a slidable ring connection between the flexible companion members and the rigid rods, whereby upon pulling said rigid rods apart from each other said pairs of companion members are distended and reduced in length, thereby forming a lattice work of variable length and breadth.

3. An expandable panel according to claim 2, wherein



said members comprise aluminum slats, and including rope means secured to and extending between said rigid rods and secured to each of said pairs of companion members, respectively, for determining the maximum expansion of said panel.

**References Cited** in the file of this patent

UNITED STATES PATENTS

| | | |
|---|---|---|
| 2,210,371 | Hutchinson | Aug. 6, 1940 |
| 2,547,632 | Ewing et al. | Apr. 3, 1951 |
| 2,598,861 | Tomietto | June 3, 1952 |

FOREIGN PATENTS

| | | |
|---|---|---|
| 469,795 | Germany | Dec. 28, 1928 |
| 534,303 | Great Britain | Mar. 4, 1941 |