

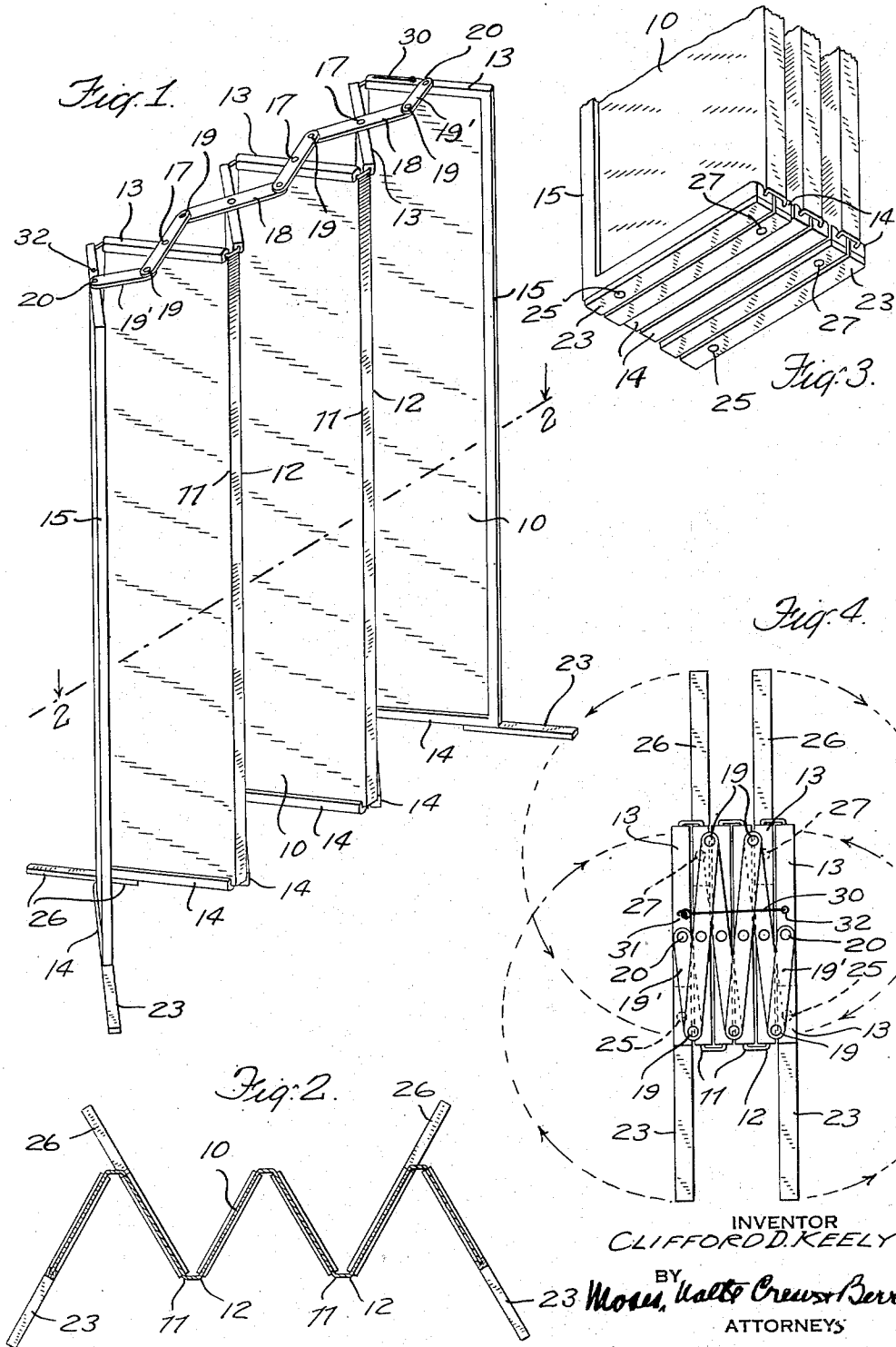
Oct. 10, 1950

C. D. KEELY
HOUSEHOLD SCREEN

2,525,683

Filed July 19, 1946

2 Sheets-Sheet 1



Oct. 10, 1950

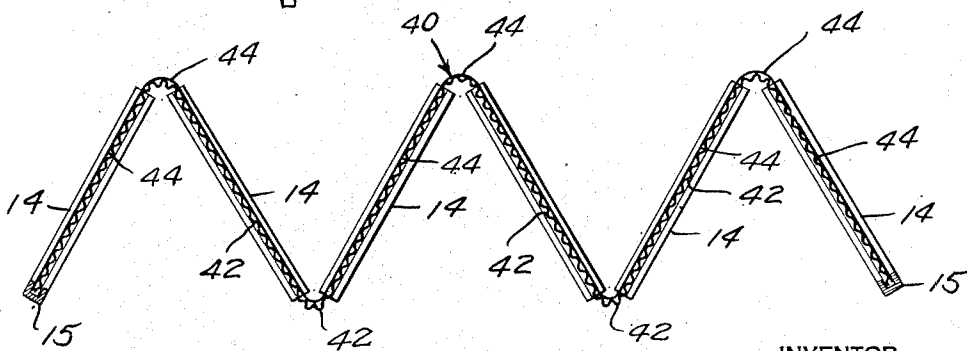
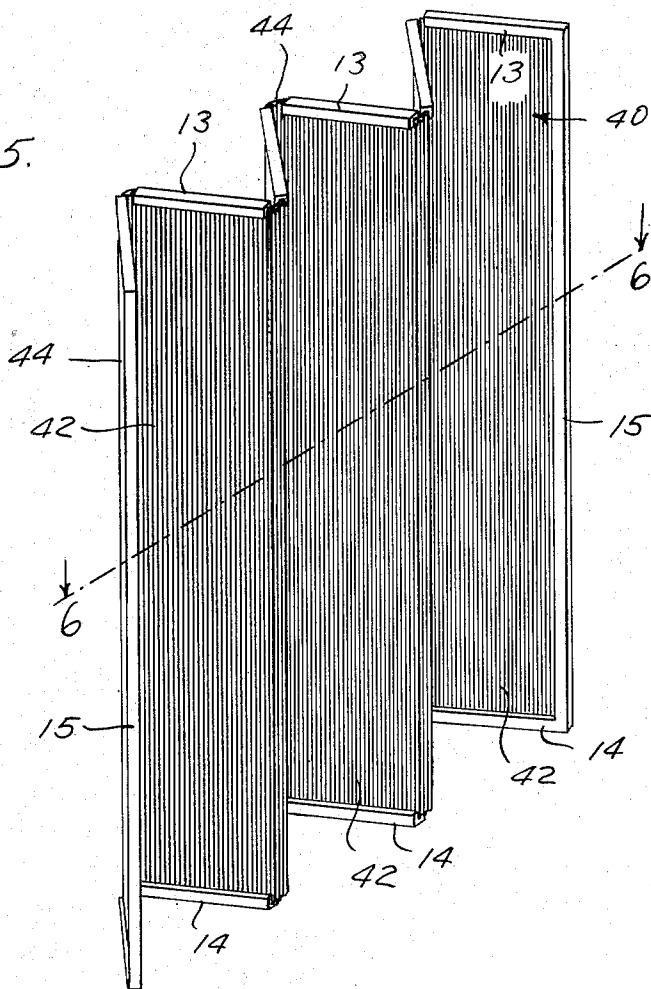
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2 Sheets-Sheet 2

Fig. 5.



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Fig. 6. BY *Moses, Holt & Brewster & Berry*
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HOUSEHOLD SCREEN

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Application July 19, 1946, Serial No. 684,942

2 Claims. (Cl. 160—84)

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My present invention relates to improvements in screens of the household or office furniture type. The principal object of my invention is to provide a screen which shall have outstanding advantages of ease and simplicity of manufacture, compactness in shipping and in storage, stability in use, etc. A more specific object is to devise such an article which can be fabricated from a single continuous sheet of material to produce panels preferably of uniform width. In this manner a screen is produced wherein it is unnecessary to have individual panels framed with molding on four sides and separate hinges joining the panels. A still further object is to utilize sheet material which is relatively inflexible horizontally but flexible vertically, thus permitting the panels to assume an accordion arrangement and permitting easy flexing of the sheet material at the bending zones. A still further object is to utilize sheet material which is relatively inflexible in both horizontal and vertical directions and to provide vertical scoring therefor to constitute bending zones between the panels and to provide means for causing the panels to assume and maintain any position of extension within the range of the screen. A further object is to provide extensible feet or pedal members substantially to augment the stability of the screen when in use by widening the base thereof. Other objects of my invention and advantages thereof will be apparent as the description proceeds.

In carrying out my invention I may employ sheet material such as single faced corrugated board 40 which consists of a sheet of corrugated sheet material 42 which is adhesively secured to a facing sheet 44 on one side thereof. Such corrugated sheet material is flexible lengthwise of the corrugations but is relatively inflexible crosswise thereof. In a further form of my invention I may employ other types of sheet material which are relatively inflexible in both horizontal and vertical directions, such as laminated fiber board or so called double faced corrugated board, in which the corrugated layer is faced on both sides thereof. In using the sheet material which is relatively inflexible in both directions, the sheet is articulated as by scoring to form panels for which molding or the like is provided to provide marginal reinforcement, such molding being interrupted at the top and bottom of the screen at the scored zones of bending. The screen is then preferably provided with means for maintaining it in extended position, as will be hereinafter apparent.

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My invention will be best understood by reference to the following detailed description taken with the annexed drawings in which:

Fig. 1 is an isometric view of an illustrative embodiment;

Fig. 2 is a view in section taken on line 2—2 of Fig. 1;

Fig. 3 is an isometric view showing the bottom of the screen in completely folded up position;

Fig. 4 is a top view of the screen in folded up position with certain pedal members left in an extended position for the sake of clearness;

Fig. 5 is a view similar to Fig. 1 but of a modification; and

Fig. 6 is a view taken on line 6—6 of Fig. 5.

Describing now the form of the invention shown in Figs. 1-4, consisting either of fiber board or double faced corrugated board, the body of the screen consists of preferably a single sheet of material 10 of the type above described which is scored to provide any desired number of panels, there being preferably two parallel score lines, as for example at 11, 12, for each bend, each bend being of a maximum of 90°, such score lines being separated by a distance at least twice the half-width of the top molding strips 13, whereby to accommodate such strips when in folded position, as will be evident from Figures 3 and 4. In addition to the top molding 12, the bottoms of the panels also have similar strips 14, whereas the outer side edges are similarly provided with strips 15. This molding may be of any suitable type; in the embodiment shown, such molding consists of wooden strips which are grooved to engage the edge portions of the material 10 to which they are adhesively secured or otherwise, it being desirable that the top molding at least have sufficient body to receive screw or other type pivots 17, 17, etc., each serving to attach links 18 thereto, links 18 being pivoted preferably tightly at their ends 19 to each other, outer links 19' being of half length, as will be readily apparent, and being pivoted to the molding 13 of the end panels by screw pivots 20, 20.

The links 18 are so chosen as to enable the screen to be extended as far as possible consistent with the angles between adjacent panels being small enough to afford a proper measure of stability of the screen. In general for imparting a modicum of stability the angle between adjacent panels should not materially exceed 120°.

Further to increase the stability of the screen I preferably provide on the bottom thereof strips or arms 23, 23 which in effect constitute extensions of the molding of the terminal panels pref-

erably outward of the screen, the same being pivoted to said molding (pivots 25, 25, Fig. 4). Similarly arms 26, 26 preferably extend rearwardly as seen in Fig. 2 from the preferably adjacent penultimate panels and are similarly pivoted at 27, 27, Fig. 4. If desired, the arms 23, 26 may be held in either extended or retracted position by means of clips not shown. Other types of auxiliary supports may be employed as will be evident to those skilled in the art.

It will be seen that the links 18 and the screen panels in effect constitute lazy tongs. Without the links 18, the natural springiness of the material 10 will exert a force which will tend to prevent the screen from assuming various desired positions. By having the various pivots 17, 19 and 20 of the links operate with a reasonable amount of friction, any tendency of the panels to change position due to the stiffness of the material 10 is thereby overcome. Furthermore, by the operation of the links the alternate panels are automatically maintained in a parallel relationship and thus make for a pleasing effect.

If desired the links 18, 19 may be disposed on the bottom of the screen, especially where the arms 23, 26 are not used, or on both bottom and top.

To keep the screen in a folded up position, a hook 30 may be provided, Fig. 4, which is pivoted at 31 to the molding of one terminal panel and engages in a hole at 32 in the molding of the opposite terminal panel. The material 10, being one continuous piece, is not only draft-proof by avoiding spaces between the panels, but is readily covered with papers, such as hanging paper having a decorative value, if this is desired; or, the material 10 may be painted or decorated in any desired manner. Furthermore, by always maintaining the accordion relationship of the panels, the material 10 in any bending zone is subjected to bending in one direction only, thereby making for a longer life thereof. Since the two separate cooperating scores result in a maximum of 90° bend at each score, a long life of the material 10 at the bending zones is maintained.

In Figs. 5 and 6 there is shown a further form of my invention in which I use a single faced corrugated board 40 having corrugated sheet material 42 which is adhesively secured to a facing sheet 44 on one side thereof. Here the material is arranged with the corrugations vertically of the screen. Because the material is flexible along the axes of the corrugations it is unnecessary to score it to provide bending zones; and furthermore, because of its flexibility it is unnecessary to provide holding means to maintain the panels in any assumed position. By

interrupting the molding 13, 14 as shown in Figs. 5 and 6, bending zones are created which because of the inherent flexibility of material 40 in the vertical direction require no holding means to maintain the panels in any assumed position. It will be understood that if desired, this form of the screen may also be provided with arms such as 23—26 for increasing the stability of the screen and/or the links 18, 19 to automatically position alternate panels in parallelism.

It will be noted that due to my improved construction it is possible to have more than the usual number of panels without increasing substantially the cost thereof, as would be the case if separate hinged panels were employed. It will further be noted that the material in the various bends is always folded in the same direction, this making for long life of the material in the bending zones.

It will be understood that various changes will be made in my improved screen without departing from the spirit of my invention or the scope of the appended claims.

I claim:

1. An extensible screen comprising a continuous sheet of relatively stiff material having bending zones therein defining a plurality of panels, said bending zones being created by pairs of parallel spaced score lines, molding on a horizontal edge of said panels which is interrupted in the region of said score lines, links on said molding constituting lazy tongs therewith and serving to hold said screen in extended position against the tendency of said material to resist bending, said lazy tongs further serving to constrain said panels in substantially the same angular relationship to one another.

2. A screen according to claim 1, having extensible arms, two of said arms being attached to the molding of the outer panels and extending outwardly in the direction of said panels, and arms attached to inner panels extending rearwardly of the screen.

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