Feb. 18, 1947. B. JUFE 2,415,889

CHAIR CONSTRUCTION

Filed April 23, 1945 2 Sheets-Sheet 1

Fig. 1

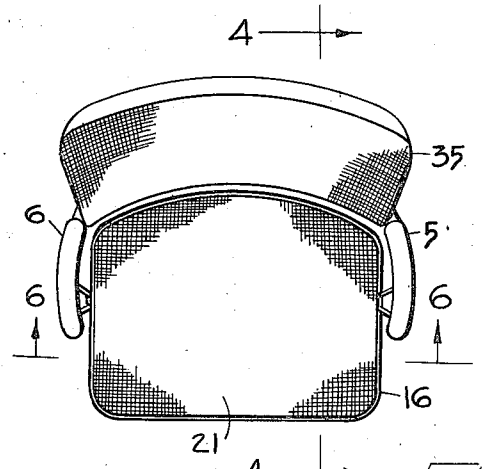


Fig 2

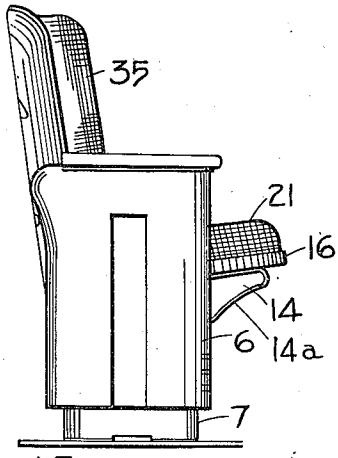


Fig. 3

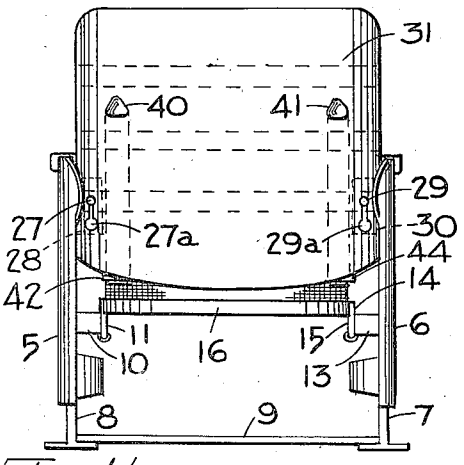


Fig. 10

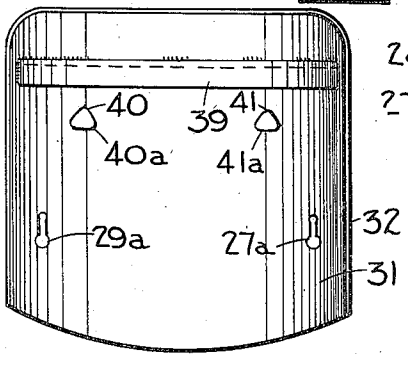
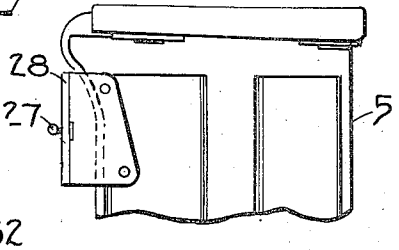


Fig. 11



INVENTOR.

Bernard Jufe

BY

Mock & Blum

ATTORNEYS

Feb. 18, 1947. B. JUFE 2,415,889

CHAIR CONSTRUCTION

Filed April 23, 1945 2 Sheets-Sheet 2

Fig. 4

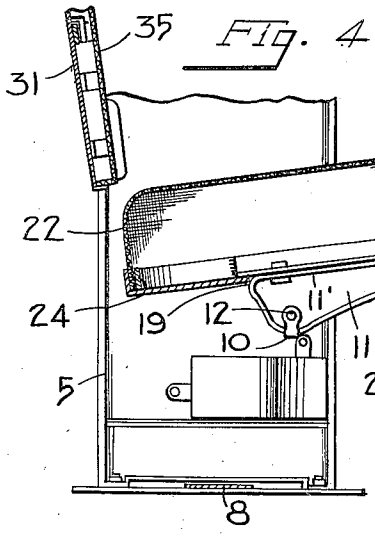


Fig. 8

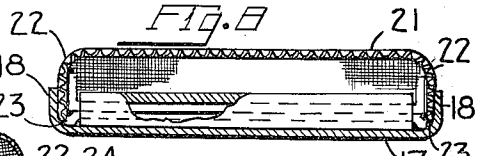


Fig. 12

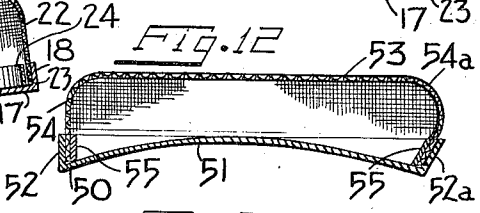


Fig. 6

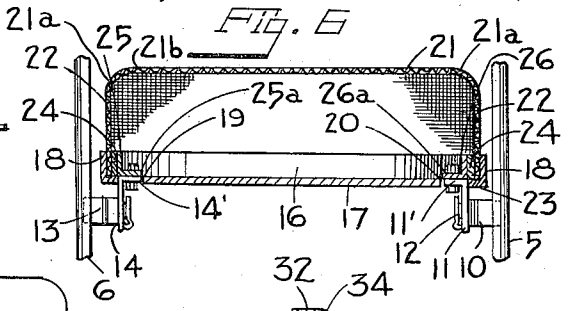


Fig. 5

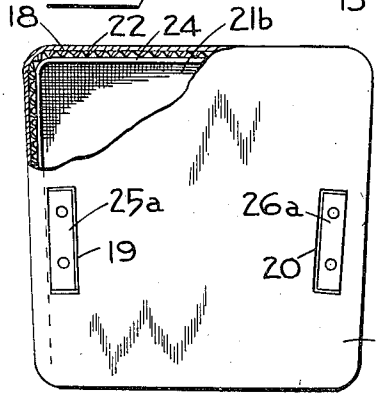
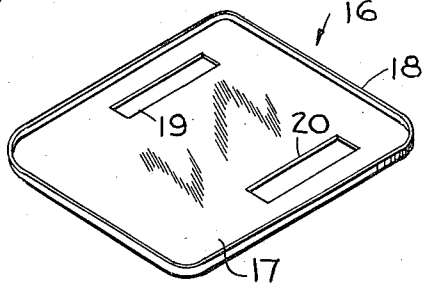


Fig. 7



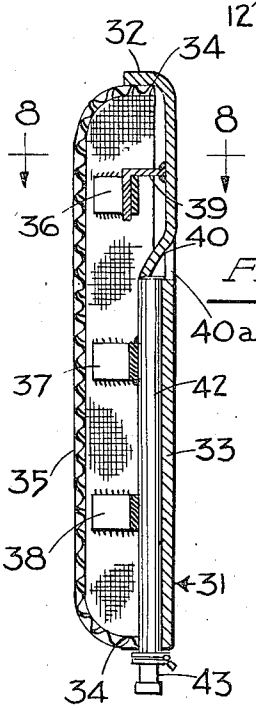


Fig. 9

INVENTOR.

Bernard Jufe

BY Mocks Blum

ATTORNEYS

Patented Feb. 18, 1947

2,415,889

UNITED STATES PATENT OFFICE

2,415,889

CHAIR CONSTRUCTION

Bernard Jufe, New York, N. Y.

Application April 23, 1945, Serial No. 589,798

6 Claims. (Cl. 155—187)

1

This invention relates to an improvement in the seat and back rest cushion constructions for particular use in theatres, and one of its objects is to provide a wear surface which is constructed of molded woven wire, or wire fabric, and which provides a central area adapted to receive and cushion the weight of the body of the user, and to be capable of use with or without expensive upholstery.

Another object of the invention is to provide a base pan to receive the molded wire fabric or wire screen, which may be either a seat or a back rest, and means for securing the pan in place in the structure of the chair.

With the above and other objects in view, the invention comprises certain new and useful constructions, combinations and arrangements of parts, clearly described in the following specification, and fully illustrated in the accompanying drawings, in which:

Fig. 1 is a top plan view, of a theatre chair embodying features of the invention.

Fig. 2 is a side elevation thereof.

Fig. 3 is a rear elevation thereof.

Fig. 4 is a vertical sectional view, taken on line 4—4 of Fig. 1, looking in the direction of the arrows, the back being shown broken away.

Fig. 5 is a bottom plan view of the seat, showing the pan thereof broken away for convenience.

Fig. 6 is a transverse sectional view, taken on line 6—6 of Fig. 1, looking in the direction of the arrows, and showing the seat in its normal position on the chair, the latter being shown broken away.

Fig. 7 is a detail bottom perspective view of the pan of the seat.

Fig. 8 is a transverse sectional view, taken on line 8—8 of Fig. 9, looking in the direction of the arrows.

Fig. 9 is a vertical sectional view through the back of the chair.

Fig. 10 is a rear elevation showing the pan of the seat back.

Fig. 11 is a fragmentary plan view of the chair, showing the lock for the back pan.

Fig. 12 is a transverse sectional view through a modified form of the seat construction.

Referring to the accompanying drawings, which illustrate the practical embodiment of the invention, 5 designates one side frame member of a chair for public places or theatres, and 6 the companion side frame member. The side member 5 is provided with a base 8 and the side frame member 6 is provided with a base 7, the two bases be-

2

ing connected to each other by means of the tie member 9.

The side frame member 5 is provided with a bracket arm 10, to which the connecting side plate 11 is pivoted by the stud pin 12. The side plate 11 is provided with a marginal flange 11*a*, which serves to reinforce the plate, and the upper portion of this plate and its flange are disposed in an approximately straight line. The side frame member 6 is provided with a bracket arm 13, to which the side plate 14 is pivoted by the stud pin 15, and the side plate 14 is provided with a marginal reinforcing flange 14*a*, and is similar in shape and general construction to the side plate 11. One of these side plates is a right member and the other is a left member of the chair seat assembly.

The chair seat comprises the base pan 16, which has a main wall 17 and a marginal flange 18. The main wall 17 is formed with openings 19 and 20, located on opposite sides thereof, which are adapted to receive the straight edge portions 11' and 14' of the side connecting or supporting plates 11 and 14.

The seat pan 16 is constructed to snugly receive the molded seat member 21, which is constructed of woven wire or screen material, which may be made from aluminum, aluminum alloy, stainless steel, bronze or other wire, machine woven to form a screen of substantially closed mesh, or small mesh openings, depending on the requirements of the trade.

The screen material of which the seat member 21 is constructed is molded to provide a relatively deep marginal flange 22, the lower edges 23 of which are disposed in a common plane, so as to have equal bearing on the main wall 17 of the base pan 16, and within the marginal flange 18 thereof. This marginal pan flange prevents outward displacement of the wire ends of the screen, and a binding ring or loop 24 is welded or otherwise united to the lower edge portions of the flange 22, to prevent inward displacement of the wire ends.

The seat member 21 is molded with rounded marginal portions 21*a*, which provide smooth bearing surfaces for the comfortable sliding movement of the user thereon, and also provide resilient bends between the upper main wall 21*b* of the seat member and its supporting flange 22. When any load is imposed upon the main wall 21*b* the wires which compose this wall will be placed under tension, while the wires of the rounded marginal portions 21*a* and the flange 22 will be placed under bending stresses.

In order to positively couple the wire screen seat member 21 to the side plates 11 and 14, angle bars 25 and 26 are welded against the sides of the frame loop 24, thereby providing bottom flanges 25a and 26a, which are bolted directly to the straight edge portions 11^1 and 14^1 of the side plates 11 and 14, through the openings 19 and 20 of the pan 16, as shown in Fig. 4. In this way the entire seat assembly is rigidly connected to the side plates 11 and 14, while these plates have a moderate pivotal movement on the supporting brackets 10 and 13.

Should it be desired to cover the screen fabric seat member 21 with upholstery the facing textile fabric material may be tucked under the projecting wire ends of the side flange 22 of the seat member, which will provide an effective grip on the marginal portions of the fabric covering which may be employed.

By dispensing with the use of upholstery work, the entire seat assembly provides a self ventilating support of great flexibility and having an exceedingly comfortable cushioning action.

The frame side member 5 is provided with a rearwardly projecting spherical headed stud 27 carried by the plate 28, and the frame side member 6 is provided with a spherical headed stud 29, carried by plate 30.

The ball headed studs 27 and 29 of the side frame members of the chair, are adapted to enter the keyhole slots 27a and 29a formed in the base pan 31 of the back rest assembly. This pan is constructed with a marginal flange 32, which extends along the sides and upper edge thereof, but not along the bottom edge of the pan. Against the main wall 33 of this pan the marginal flange 34 of the screen fabric back rest 35 is disposed, the flange 34 of this screen fabric back rest being confined by the flange 32 of the pan 31.

Within the back rest 35 the U-shaped metal bars 36, 37 and 38 are secured at their ends, as by welding to the marginal flange 34 of this back rest, in parallel relation to each other.

The uppermost bar 36 is engaged by the angle bar 39, which is welded or otherwise secured to the main wall 33 of the base pan 31, and the two members, that is, the pan 31 and the screen back rest 35, are thus coupled together.

The pan 31 is formed with a struck-in portion 40, located on one side thereof, which provides a small opening 40a, and another struck-in portion 41, which provides a small opening 41a. A metal tube 42 is slidably mounted between the lower cross bars 37 and 38 of the back rest and the inner surface of the main wall 33 of the pan 31. The upper end of the metal tube 42 engages the struck-in portion 40. In this tube a glass or other form of a tubular container 43 is inserted, to receive through the opening 40a match ends, ashes from cigarettes and cigars, and ends of the same.

Another metal tube 44 is slidably mounted to engage the struck-in portion 41, and within this tube a tubular waste container is inserted through the lower end thereof.

The entire back assembly may be detached from the side frame members of the chair, by disengaging the ball headed studs 27 and 29 from the keyhole slots 27a and 29a of the base pan 31, as by a lifting motion of the back assembly.

In Fig. 12 a modified form of the seat construction is shown, wherein the base pan 50 is shown to have a concave-convex main wall 51, and a marginal flange 52. One side 52a of this marginal flange is inclined outwardly and upwardly, so that the forward edge of the wall 51 will be located rearwardly of the upper edge of the flange. The screen fabric seat member 53 is constructed with the usual marginal flange 54, which is stiffened by the inner ring frame 55, and this marginal flange is nested against the marginal flange 52 of the pan 50. The forward side 54a of the marginal flange 54 is inclined downwardly and rearwardly, so that the rounded portion of the molded screen fabric seat member 53 will overlie the upper edge of the pan flange 52.

This construction also serves to minimize the total area which the complete chair will occupy in a theatre, and thereby tends to provide a slight aisle space increase between adjacent rows of the theatre.

In the seat and in the back assemblies, a metal screen fabric, which is molded to a pan-like form of body, provides the external wear surface which is engaged by the garment of the user, and also provides the cushion which affords a comfortable support for the body of the user. This cushion develops from the resilient character of the screen fabric and the dished formation of the same.

In both cases an uncovered screen fabric cushion provides maximum ventilation and cooling, and fullest ventilation.

When rust resisting metal is employed it is easy to completely clean a theatre chair, by air blast, or washing.

It is understood that the seat and back rest construction may be applied to any type of chair or furniture construction, and that various changes in the details of construction, the selection and use of all available materials, and the combination and arrangement of such materials in the construction disclosed, may be made, within the limits of the invention, as defined by the claims hereof.

Having described the invention, it is claimed:

1. The combination with the frame of a chair, of a pan supported on the chair and provided with a marginal flange disposed upwardly thereof, a woven wire screen having a relatively deep marginal flange drawn from the material of the screen and coextensive with all sides of the screen snugly nested in the pan against the marginal flange thereof, and a metal frame secured against the marginal inner surfaces of the flange of the screen to prevent inward displacement of the flange of the screen.

2. The combination with a chair frame, of a pan mounted on the frame and provided with an upwardly directed flange, said pan having side openings therein through which the connections of the chair frame extend, a metal wire screen having a marginal flange nested in said pan against the flange thereof, a metal band engaging the inner sides of the marginal portion of the flange of the screen, and angle bars connected to the sides of the metal band and having connection with the chair frame connections.

3. The combination with a chair frame having side plates, of a pan having openings to receive portions of the side plates, a woven metal wire screen having a marginal flange drawn from the material of the screen and disposed in said pan, a band secured against the inner surface of the marginal edge of the flange of the screen, angle bars secured to the sides of the band and

disposed over the openings of the pan, and connections between the side plates and the angle bars for securing the pan and screen to the chair frame.

4. The combination with a chair frame having headed studs projecting rearwardly thereof, of a metal pan having interlocking engagement with said studs, a woven metal wire screen having a drawn marginal flange snugly nested in the pan, a metal band engaging the inner surface of the drawn flange, and means detachably connecting the screen to the metal pan.

5. The combination with a chair frame, of a back rest comprising a metal pan having a marginal flange, an angle bar secured to said pan, a screen of woven metal wire having a U-shaped bar adapted to detachably engage the angle bar and secure the screen nested in the pan, and means for detachably securing the pan to the chair frame.

6. The combination set forth in claim 5, the pan having a struck-in portion providing a waste opening, and a tubular receiver mounted in said pan with its upper end disposed in line with said opening.

BERNARD JUFE.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
2,107,052	Church	Feb. 1, 1938
2,126,439	Zerbee	Aug. 9, 1938
434,495	Woods et al.	Aug. 19, 1890
660,215	Harmon	Oct. 23, 1900
250,343	Roberts	Dec. 13, 1881