

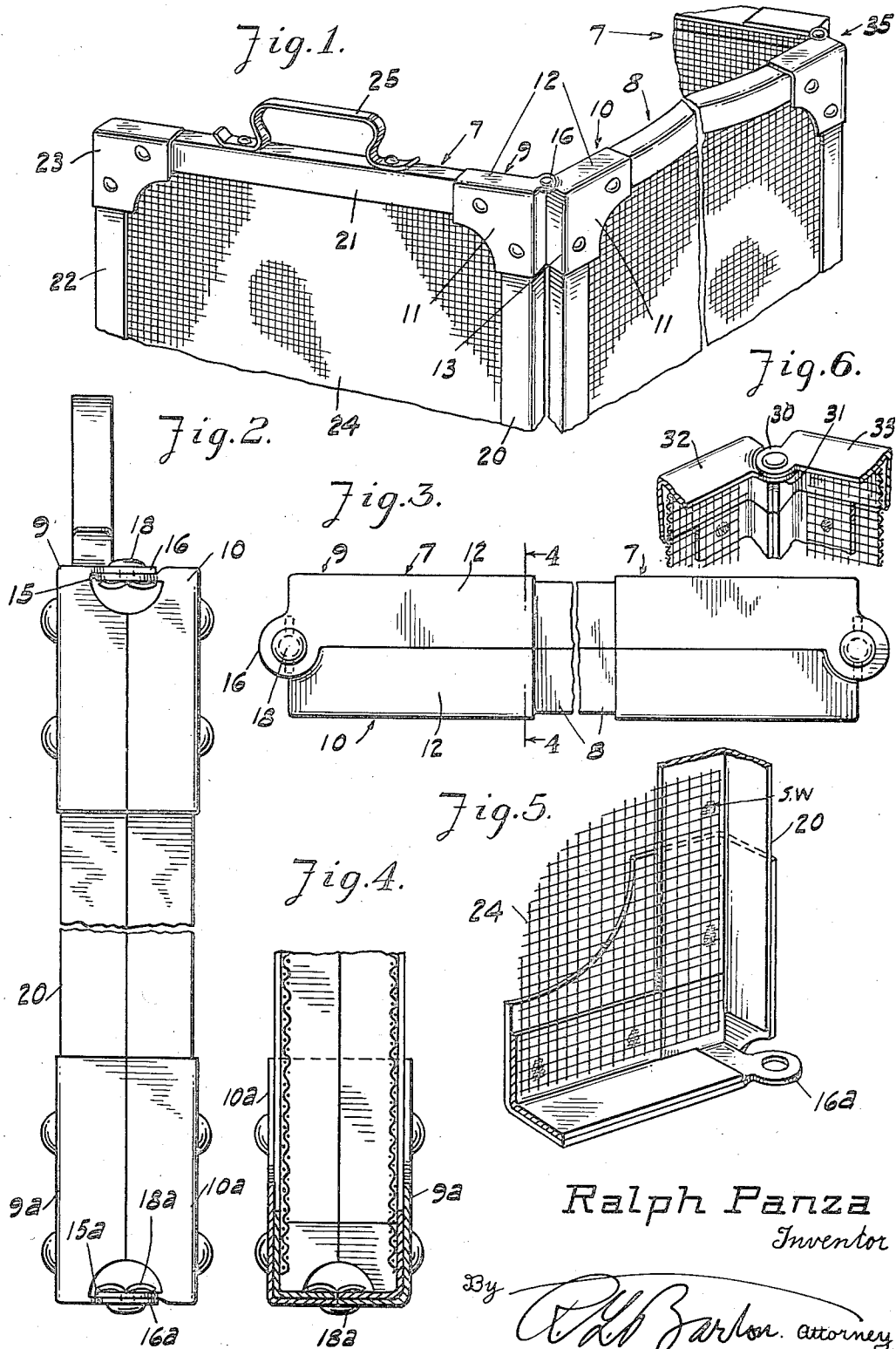
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R. PANZA

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FOLDABLE SCREEN

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FOLDABLE SCREEN

Ralph Panza, Los Angeles, Calif.

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2 Claims. (Cl. 126—202)

This invention relates to an improved hinge construction which is particularly well adapted for use for hinging together the sections of a fireplace screen, but said hinge is not limited to use in such a situation as it may be found desirable to apply it on a number of other situations.

More specifically the invention relates to the combination of the hinge structure per se with the foldable frame sections hereinafter illustrated and described.

Among the objects of the invention are improvement in respect to simplicity and low cost of construction, a more compact structure, and in regard to the provision of a more substantial and durable structure in the class of hinges to which the invention pertains.

Other objects and advantages and features of invention may hereinafter appear.

Referring to the accompanying drawing which illustrates what is at present deemed to be a preferred embodiment of the invention,

Fig. 1 is a perspective view of a portion of a fireplace screen structure showing the application of the invention thereto, the fragment of the screen shown being in the upstanding operative position.

Fig. 2 is an end elevation including the structure shown in Fig. 1 and additional parts, the two leaves or wings of the screen shown being folded together, their central part being broken away in order to contract the view.

Fig. 3 is a top plan view of the structure shown in Fig. 2, a central part being also broken away in this view.

Fig. 4 is a sectional fragment of the lower part of the structure shown in Fig. 3, taken on line 4—4 of the latter view.

Fig. 5 is a perspective view of a corner portion of the hinged structure.

Fig. 6 is a perspective, fragmentary view of a modification wherein the leaves of the hinge structure are integral with the sections which they hingedly unite.

Referring in detail to the drawing, in Fig. 1 is shown an end section 7 hinged to a corner fragment 8 of the main screen frame of a set of fireplace screens, said sections 7 and 8 being respectively furnished with the upper corner hinge plates 9 and 10. In Fig. 2 are shown the corresponding lower hinge plates 9a and 10a wherein is duplicated the hinge structure associated with said plates 9 and 10.

Describing the hinge structure associated with the plates 9 and 10, said plates are of in part box-like form, having each the side wall 11, top

wall 12 and end wall 13. The corner plate 10 is shown provided with an apertured hinge ear 15 which is countersunk or downwardly offset in order to match up with and smoothly underlie the cooperating ear 16 of the corner plate 9, as is more clearly shown in Fig. 2. A split rivet 18 is shown pivotally uniting the hinge ears 15 and 16. The parts 15, 16, and 18 are duplicated in a reverse arrangement in the foot portion of the structure where they are respectively lettered 15a, 16a, and 18a and the letter a is also applied wherever the top structure is duplicated below.

Describing further the structures shown in Fig. 1, the hinge plate 11 unites the upstanding angle iron member 20 with the horizontal top angle iron member 21, the left hand fireplace screen section being completed by the upstanding angle iron 22 and corner plate 23 and the screen 24 being spotwelded to the vertical flanges of all three of the angle irons. The plates 11 and 23 are riveted or otherwise secured to the angle irons. A handle 25 may be attached to the upper flange of the angle iron 21.

As the hinge pivots aline with the outer edges of the external angle iron flanges, when two adjacent connected frames of the fireplace screen are folded together the outer edges of the external flanges of one frame substantially meet the outer edges of the corresponding angle iron flanges of the other frame.

In Fig. 3 parts are shown of the three screen sections which make up the usual fireplace screen assembly, the main section 8 having an auxiliary section 7 hinged to each of its ends.

In Fig. 6 is shown a modification wherein the cooperating apertured hinge ears 30 and 31 are formed as integral extensions of the angle iron flanges 32 and 33 of which they form a part. In both forms of the invention the hingedly connected screen sections abut on the inside around their marginal portions when they are in the completely folded condition. They may be opened to any desired extent to secure adjustment at angles sufficiently great to insure that they will upstand in front of the fireplace in a stable manner.

Also in both forms of the invention, wherever two of the apertured ears cooperate to receive a common hinge pivot, one of said ears is an undeflected extension of a flange of which it forms a part, and the other of said ears is offset or deflected in order to match up in a flatwise contacting relation below (or it could be above) the ear with which it cooperates. This construction simplifies manufacture. It would add somewhat

to the cost of the die making if both ears were oppositely offset.

In Fig. 1 the hinge structure 35 in the extreme right hand portion of the view is not described in detail as it includes only parts of the structure the arrangement of which will be readily deduced from the foregoing description.

I claim:

1. A screen of the kind described including a plurality of sections each of which is provided with a rectangular frame of angle iron, the angle irons at the sides, top and bottom of the frame being arranged to have one leg of each in a common plane and the remaining leg of each projecting in a common direction from said plane, corner pieces for said frame each having a plane body portion provided with a pair of side flanges at right angles to each other and projecting in like direction from the body, said body being riveted to adjacent sides of the frame with the flanges embracing the corners, the corner pieces

of adjacent frames having projecting and overlapping hinge eyes, and pivot rivets extending through said eyes, said hinge eyes being arranged on the horizontal flanges of the corner pieces with their centers alining with the free edges of the vertical flanges.

2. A fireplace screen of the kind described including a plurality of sections each of which is provided with an upright rectangular frame, the adjoining vertical frame members of each section having portions provided with contiguous vertical edges, hinge eyes extending from adjoining horizontal frame members of said sections and having the axes of the apertures thereof in alignment with the respective edges of said vertical members, and pivot rivets for said eyes, whereby the sections are hinged together with the space between the said edges at all times substantially closed to prevent sparks from passing therethrough.

RALPH PANZA.