

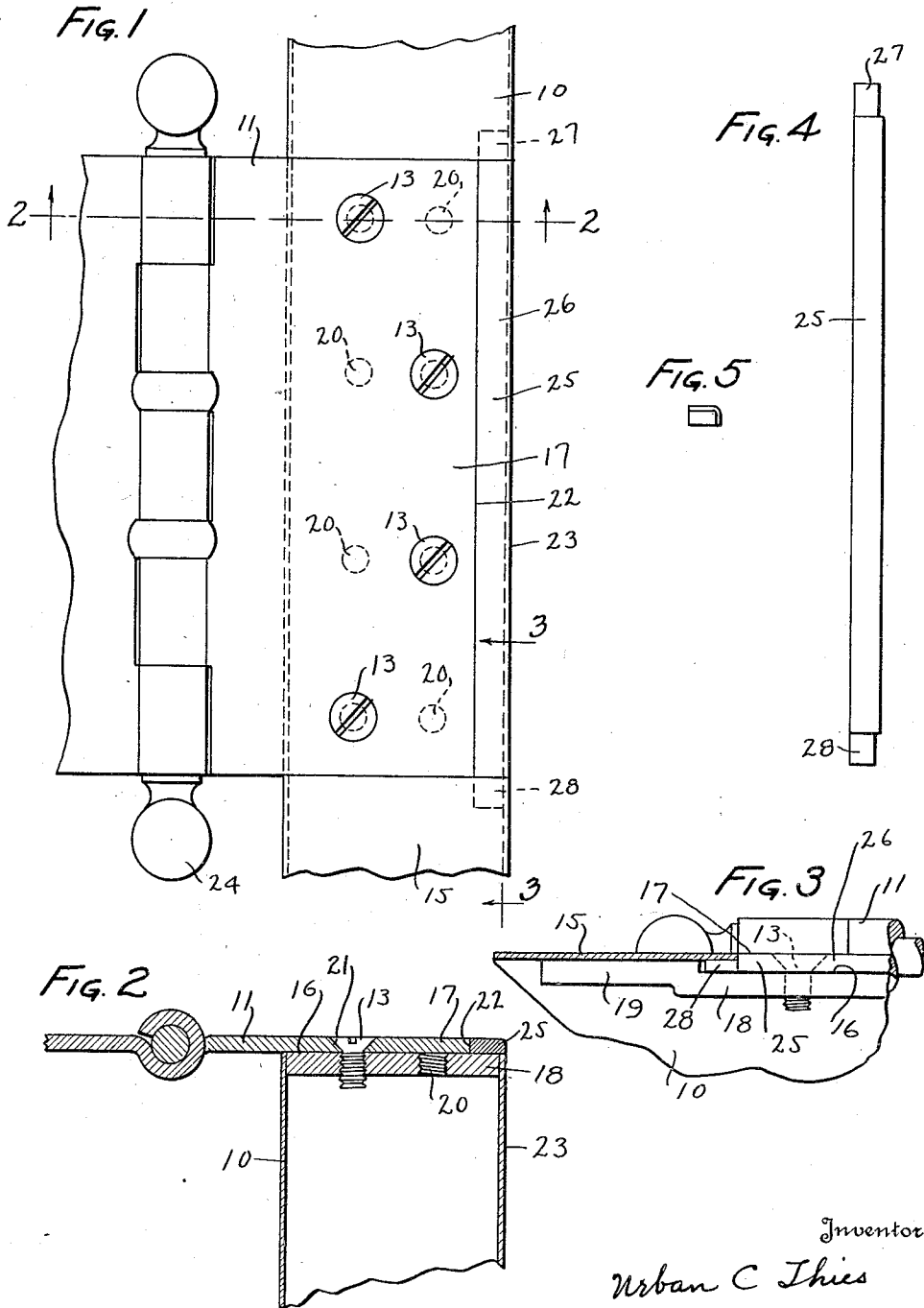
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HINGED STRUCTURE

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HINGED STRUCTURE

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This invention relates to the construction of hinged members such as doors and the like.

One object of the invention is the provision of a filler member for cooperation with a hinge to provide a finished appearance at the point of hinge attachment, the filler member having end extensions by which it is held in place.

Another object of the invention is the provision of a door having a filler member of the type mentioned, of reversible form and construction and adapted to cooperate with a reversible hinge and which may be readily mounted in position on the door.

Other objects and advantages of the invention will be apparent from the following description, the appended claims, and the accompanying drawings.

In the drawings, which disclose a preferred embodiment of the invention—

Fig. 1 is a fragmentary elevation of a hinge structure constructed in accordance with this invention;

Fig. 2 is a sectional view on the line 2—2 of Fig. 1;

Fig. 3 is a sectional view on the line 3—3 of Fig. 1;

Fig. 4 is a detail of the hinge filler member; and

Fig. 5 is an end view of the same.

In its illustrated form the invention is applied to a hinge member 10 which may be a sheet metal door such as is used in hotels, offices and factories. In such constructions the parts used should be readily assembled and dismantled with a minimum of labor and loss of material. The component parts of the structure are generally made so that they may be used in a variety of combinations, and are usually made interchangeable so that a variety of structures may be fabricated from a minimum stock of parts. The doors, for example, are preferably provided with reversible hinges so that they may be hung from either side of the door frame to swing in either direction.

This invention discloses a door construction which permits such usage and which, in addition, provides a neat appearance for the

door which may be quickly mounted in any desired position.

On the door 10 is a hinge 11 attached thereto by some suitable means such as the attaching screws 13. As shown, the hinge is attached to the edge 15 of the door and received in an indented or cut away depression, as at 16, so that the plate portion 17 of the hinge will lie flush with the door edge 15. In the sheet metal door shown the stile surface is cut away and a backing plate 18 is provided for the attachment of the hinge; the backing plate being preferably a heavy rigid metal member having extending ends 19 which may be attached to the door edge in some suitable manner as by welding. The backing plate 18 is provided with symmetrically positioned attaching means for the hinge such as the tapped holes 20, which match the hinge plate attaching screw holes 21 so that the hinge 11 may be attached in reverse manner to enable the door to be hung for either right hand or left hand operation without inverting the door itself.

The cut away portion 16 extends across the full width of the door stile so that the hinge plate may be attached with the hinge pin on either side. The door may be of considerable thickness while standard hinges are frequently not of sufficient width so that they may reach completely from one side of the door to the other, and where such standard hinges are used the space at the end of the hinge may be filled by the filler member 25 which takes up the space between the end 22 of the hinge and the surface 23 of the door opposite the hinge pin 24.

This filler member 25 is preferably made as an integral member, preferably a metal casting, and as shown comprises a body portion 26 on which are the end extensions 27 and 28 reaching beyond the ends of the hinge plate 17, the extensions 27 and 28 being cut away as indicated in Figs. 4 and 5 so that these extensions may fit within the sheet metal door stile with the outer surfaces of the body portion 26 flush with both the hinge and the side and edge of the door, thus giving a finished appearance to the end of the door. The thickness of the body portion 25 is prefer-

ably the same as the thickness of the hinge plate 17 so that the filler piece can lie against the outer side of the backing plate 18, and when the hinge is screwed in position on the door it will be seen that the filler member is firmly held in its intended position even though it is not directly screwed or rigidly attached to either the door or the hinge. The length of the filler piece including its extensions 27 and 28 is such that when the hinge is removed, the filler member can be positioned angularly in the cut away depression or indentation in the edge 15 of the door so that the filler piece can be removed towards the side of the door adjacent the hinge pin. It will be apparent that the extension 27 for example may remain within the door edge at the right as viewed in Fig. 1 while the lower end of the filler member is being removed towards the left, and then after the extension 28 is free of the door the filler member can be withdrawn vary readily to permit the reversal of the parts. The filler member is symmetrically constructed so that it may be reversed and mounted in position on the left hand side of the door instead of the right as viewed in Fig. 1, when the hinge is reversed and the hinge pin is mounted on the right hand side of the door instead of the left. The attaching screw holes in both the hinge plate 17 and the backing plate 18 are symmetrically positioned with respect to the side edges of the door to permit this reversibility of the hinge. Preferably the attaching holes 20 in the backing plate 18 are symmetrically arranged with respect to opposite sides of the door and provided in pairs, as shown, to cooperate with a single series of holes in the hinge plate which are arranged to correspond with the hole positions in the plate 18 as shown in Fig. 1.

While the form of apparatus herein described constitutes a preferred embodiment of the invention, it is to be understood that the invention is not limited to this precise form of apparatus, and that changes may be made therein without departing from the scope of the invention which is defined in the appended claims.

What is claimed is:

1. A hinge filler piece for hinged members of the character described comprising a single integral member adapted to lie flush with the hinge and flush with the hinged member and having end extensions projecting beyond the ends of the hinge and adapted to be received in the hinged member.

2. In combination, a hinged member, a hinge therefor secured at one edge of said member and projecting only part way across said edge, and a filler piece flush with the hinge and flush with the hinged member and having short end extensions projecting within the hinged member.

3. In combination, a sheet metal hinged

member, a hinge therefor secured at one edge of said member and projecting only part way across said edge, and a filler piece flush with the hinge and with the hinged member and having end extensions projecting and fitting within the hinged member and retained thereby.

4. In a construction of the character described, a hinged door, a hinge attached to an edge of the door and terminating short of the door face, and a filler member detachably mounted adjacent and abutting said hinge and filling the space between the end of the hinge and the face of the door, said filler member having end extensions for securing it in place projecting into the door beyond the ends of the hinge.

5. In a construction of the character described, a hinged door, a reversible hinge attached to an edge of the door and terminating short of the door face, and a reversible filler member constructed as a single integral casting and mounted adjacent said hinge to fill the space between the end of the hinge and the face of the door.

6. In a construction of the character described, a door, a reversible hinge therefor, a filler member at the end of the hinge for filling the space between the end of the hinge and the face of the door, and means for reversely attaching said hinge to said door, said filler member having end extensions projecting back of the edge of the door adjacent the point of attachment of the hinge.

7. In combination, a door, a hinge therefor, said door having a depression extending from one side to the other of the door edge for receiving said hinge, and a filler member filling the space within the depressing between the end of the hinge and the face of the door, said filler member having a thickness equal to the thickness of the hinge, and having means at the end thereof for securing it in place.

In testimony whereof I hereto affix my signature.

URBAN C. THIES.