

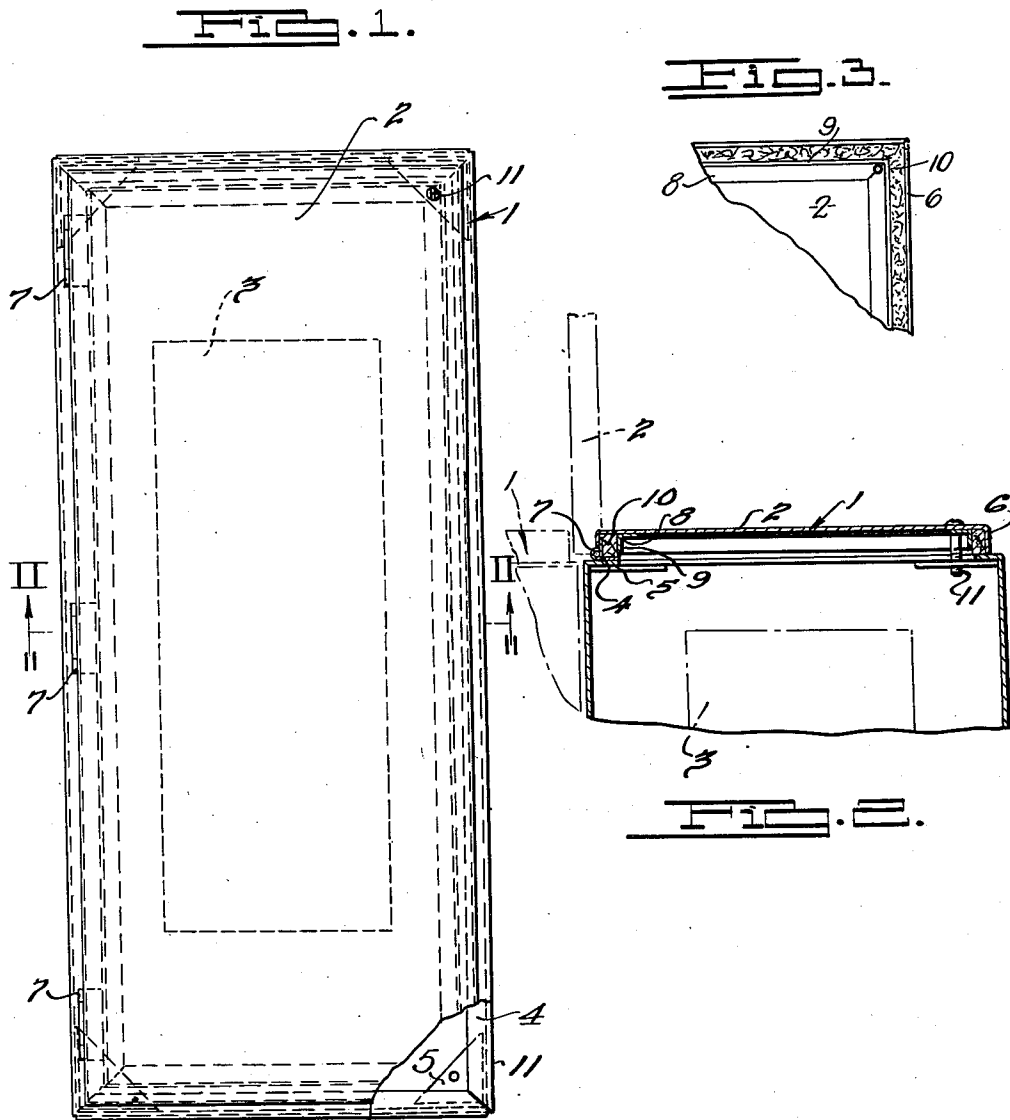
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CABINET

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CABINET

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This invention relates to enclosures adapted for the reception of electrical instrumentalities and has for its object the provision of an improved simple and economical form of semi-dust tight cabinet.

Another object of the invention is to provide a cabinet which has a door slightly smaller in outline than the box so that when the cabinet is placed side to side with another, the door has sufficient play to open upon its hinges a full 90°.

Another object of the invention is to provide a cabinet with a door flanged on all four sides giving it a generally pan-shaped appearance, and to the door are fastened stiffening angles, the flanges of the stiffening angles approximately paralleling the flange of the door and providing a space into which is disposed a felt gasket, thus giving a semi-dust tight construction.

Other objects and features of this invention will be readily apparent to those skilled in the art from the following specification and appended drawing illustrating certain preferred embodiments in which:

Figure 1 is a front elevational view of the cabinet with the right hand lower corner of the door broken away.

Figure 2 is a sectional view taken along line II—II of Figure 1.

Figure 3 is a fragmentary view of the inner side of a door corner.

The enclosure, according to the present invention, comprises a sheet metal box or cabinet 1 provided with a hinged sheet metal door or cover 2 and adapted to receive a switch or other electric circuit controlling device 3. Inwardly directed flanges 4, integrally attached to cabinet 1, are provided at the front edges thereof. Said flanges 4 provide a seat against which door 2 abuts in its closed position. Triangular shaped plates 5 are rigidly fastened as by welding to the underside of flanges 4 at the inside corners of cabinet 1 for the purpose of reinforcement. Door 2, with flanges 6 provided thereon, is smaller in outline than cabinet 1 and is secured thereon by means of hinges 7 which have one leg rigidly attached, as by welding, to the underside of flange 6 and their other legs rigidly fastened to the top surface of the inwardly directed flanges 4 of the cabinet. The door 2 is of sufficiently small outline that when it is swung open upon its hinges 7, the height of the door flange 6 will not interfere with a similar unit placed at the side of cabinet 1. Thus the door 2 can swing open to a full 90° despite the placing of a similar cabinet in abutting side by side relation. On the

underside of door 2 are fastened, as by welding, stiffening angles 8 with their flanges 9 approximately parallel to flanges 6 of door 2. The positioning of the aforesaid flanges in this manner provides a space into which is disposed a felt gasket 10 about all four sides of the cover and which, when pressed against flanges 4 by the closing of the door, provides a semi-dust tight construction. The door 2 and the angle 8 on the side opposite the hinges 7 are fitted with openings to receive studs 11 which are received in threaded openings in plates 5 to secure the door tightly in its closed position.

While certain preferred embodiments of the invention have been specifically disclosed, it is understood that the invention is not limited thereto as many variations will be readily apparent to those skilled in the art and the invention is to be given its broadest possible interpretation within the terms of the following claims.

What is claimed is:

1. A substantially dust-tight cabinet for an electric circuit controlling instrumentality comprising a sheet metal enclosure having an open front, a sheet metal door for said front hingedly mounted at one side on said enclosure, means for securing said door in its closed position, inwardly directed flanges at the front edges of the walls of said enclosure, integral flanges on said door at the outer edges thereof directed at right angles to the flanges on the enclosure walls when the door is in closed position, stiffening angles rigidly secured to the inner surface of the door adjacent to the edges thereof with the free legs of said angles paralleling the flanges to the outer edges of the door to provide a channel, and a gasket disposed in the channel formed between the free legs of the stiffening angles and the door flanges and adapted to engage the inwardly directed flanges on the enclosure walls as the door is moved to closed position so that when the door is closed, the gasket will be tightly pressed into engagement with the enclosure flanges.

2. A substantially dust-tight cabinet for an electric circuit controlling instrumentality comprising a sheet metal enclosure having an open front, a sheet metal door for said front hingedly mounted at one side on said enclosure, means for securing said door in its closed position, inwardly directed flanges at the front edges of the walls of said enclosure, integral flanges on said door at the outer edges thereof directed at right angles to the flanges on the enclosure walls when the door is in closed position, means disposed on the under surface of the door and paralleling said

door flanges to form therewith a channel for the reception of a sealing gasket, reinforcing triangular shaped plates rigidly secured to the underside of the inwardly directed flanges on the enclosure walls at corners of the enclosure, and a gasket disposed in said channel and adapted to engage the inwardly directed flanges of the enclosure walls as the door is moved to closed position so that when the door is closed the gasket will be tightly pressed into engagement with the enclosure flanges.

3. An enclosing cabinet for an electric circuit controlling instrumentality comprising a sheet metal enclosure having an open front, inwardly directed flanges at the front edges of the walls of said enclosure, a sheet metal door of smaller exterior outline than the exterior outline of said enclosure hingedly mounted at one edge upon the inwardly directed flange provided on the enclosure wall adjacent to said edge, flanges upon said door at the outer edges thereof, directed toward said enclosure flanges at substantially right angles when the cover is in closed position, the main surface of said door being substantially above the plane of said enclosure flanges by the depth of said door flanges, the door being of sufficiently small outline compared to the cabinet outline so that when swung open upon its hinges, the height of the door above the plane of the enclosure flanges will not cause the door to interfere with a similar unit placed in side by side relation and will thus provide for opening of the door to a full 90° position, irrespective of the juxtaposition of a similar enclosing cabinet therebeside.

4. A substantially dust-tight cabinet for an electric circuit controlling instrumentality comprising a sheet metal enclosure having an open front, inwardly directed flanges provided at the front edges of the walls of said enclosure, a sheet metal door of smaller exterior outline than the exterior outline of said enclosure hingedly mounted at one edge upon the forward face of the inwardly directed flange of the adjacent cabinet wall, means to secure said door to said cabinet in closed position, inwardly directed flanges provided at the outer edges of said door whereby said door forms substantially a shallow pan, means disposed on the under surface of the door and paralleling said door flanges to provide a channel, and a gasket disposed in said channel and adapted to engage the inwardly directed flanges on the enclosure walls as the door is moved to closed position so that when the door is closed the gasket will be tightly pressed into engagement with the enclosure flanges, said door being of sufficiently small outline so that when swung open on its hinges, the height of the door above the plane of the enclosure flanges will not cause interference with a similar unit placed in side by side relation so that the door may be open to a full 90° regardless of the immediate juxtaposition of said similar unit therebeside.

5. A substantially dust-tight cabinet for an electric circuit controlling instrumentality comprising a sheet metal enclosure having an open front, inwardly directed flanges provided at the front edges of the walls of said enclosure, reinforcing plates rigidly secured to the under side of said inwardly directed flanges at the corners of the cabinet, a sheet metal door for said front hingedly mounted at one edge upon said enclosure, fastening means for securing said door to at least certain of said reinforcing plates to secure the door in closed position on the enclosure,

inwardly directed flanges at the outer edges of said door giving it a substantially shallow pan shape, the hinge mounting for said door comprising one hinged leg rigidly attached to the door flange and a cooperating hinged leg rigidly secured to the front surface of an enclosure wall flange, stiffening angles rigidly secured to the under surface of said door and having their free legs substantially paralleling the flanges of the door to provide a channel, and a gasket disposed within said channel and adapted to engage the inwardly directed flanges of the enclosure as the door is moved to closed position, the exterior outline of said door being sufficiently smaller than the exterior outline of said enclosure so that when the door is swung open upon its hinges to a position at right angles to the plane of the enclosure, the height of the door above the plane of the enclosure flanges will not cause said door to interfere with a similar cabinet placed in side by side relation.

6. An enclosing cabinet for an electric circuit controlling instrumentality comprising a sheet metal enclosure, having an open front, inwardly directed flanges at the front edges of the walls of said enclosure, a sheet metal door for said front having inwardly directed flanges at its edges giving to the door a substantially shallow pan shape, said door being hingedly mounted at one edge upon the cabinet, with the door flanges directed toward the enclosure flanges and disposed at right angles thereto when the door is in closed position so that the plane of the door will be substantially spaced forwardly of the plane of the enclosure flanges, the side edges of said door when in closed position being spaced inwardly from the side edges of the cabinet for a distance of at least one-half the depth of the door flanges, whereby the door is of sufficiently smaller exterior outline compared to the exterior outline of the cabinet, so that when swung open upon its hinges to a position at right angles to the plane of the enclosure, the height of the door above the plane of the enclosure flanges will not cause interference with a similar cabinet placed in immediate side by side relation.

7. A substantially dust-tight cabinet for an electric circuit controlling instrumentality comprising a sheet metal enclosure having an open front, inwardly directed flanges at the front edges of said enclosure walls, a sheet metal door having flanges at the edges thereof giving it a substantially shallow pan shape, said door being hingedly mounted at one edge upon an enclosure wall flange, means securing said door to said enclosure in closed position, stiffening angles rigidly secured to the under surface of said door and having their free legs substantially paralleling the door flanges to provide a channel, and a gasket disposed within said channel and adapted to be pressed against the inwardly directed enclosure flanges when the door is in closed position, the hinged edge of said door and the edge opposite thereto being spaced inwardly from the adjacent side edges of the cabinet a distance equal to at least one-half of the depth of the door flanges to provide for opening of the door to a position at right angles to the plane of the cabinet without interference by the door with a similar cabinet placed in immediate side by side relation.

8. An enclosing cabinet for an electric circuit controlling instrumentality comprising a sheet metal enclosure having an open front, inwardly directed flanges provided at the front edges of the enclosure walls, a sheet metal door having

inwardly directed flanges at its edges giving the door a substantially shallow pan shape, said door being hingedly mounted upon the cabinet along one side thereof, and the width of the door being smaller than the width of the enclosure by at least the depth of the door flange, whereby, although the plane of the door is disposed a substantial distance forward of the plane of the enclosure flanges, still the door may be swung open to a position at right angles to the plane of the enclosure without interfering with a similar cabinet placed in immediate side by side relation.

9. A substantially dust-tight cabinet for an electric circuit controlling instrumentality comprising a sheet metal enclosure having an open front, inwardly directed flanges at the front edges of the wall of said enclosure, a sheet metal door having inwardly directed flanges at its edges giving to the door a substantially shallow shape, means hingedly mounting said door on the enclosure at one side thereof, means securing the said door to the cabinet in closed position, means disposed at the under surface of the door and paralleling said door flanges to provide there-with a channel for the reception of a sealing gasket, and a gasket disposed within said channel and adapted to be pressed against the inwardly directed enclosure flanges when the door is closed, the width of said door being smaller than

the width of the cabinet by at least the depth of the door flange whereby while the plane of the door is spaced a substantial distance forwardly of the front edge of the enclosure, still the door may be opened to a position at right angles to the plane of the enclosure without interfering with a similar cabinet placed in an immediate side by side relation.

10. A substantially dust-tight cabinet for an electric circuit controlling instrument comprising a sheet metal enclosure having an open front, inwardly directed flanges at the front edges of the walls of the enclosure, a sheet metal door hingedly mounted at one edge of the said enclosure, inwardly directed flanges on said door at the edges thereof giving to the door a substantially shallow pan shape, whereby the plane of the main body of the door will be spaced forwardly a substantial distance from the plane of the enclosure flanges, means on the under surface of the door forming, with the flanges on the door, a channel for the reception of a sealing gasket, and a gasket disposed in said channel and adapted to engage the inwardly directed flanges of the enclosure as the door is moved to closed position so that the gasket will be tightly pressed against the enclosure flanges when the door is closed.

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