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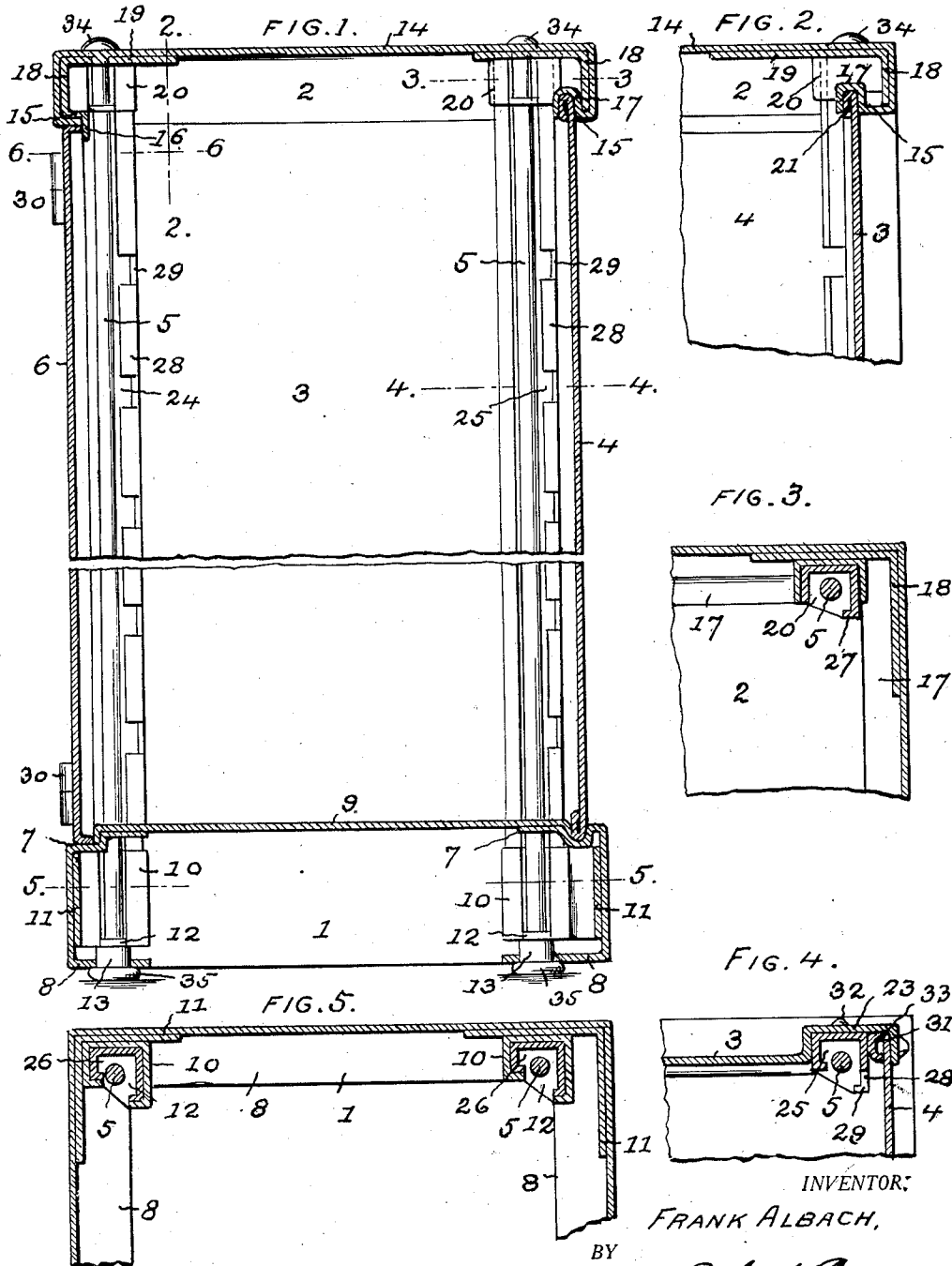
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F. ALBACH

PLATE METAL CABINET AND LIKE STRUCTURE

Filed Dec. 6, 1926

2 Sheets-Sheet 1



INVENTOR:
FRANK ALBACH,
BY
Robert A. Burns
ATTORNEY.

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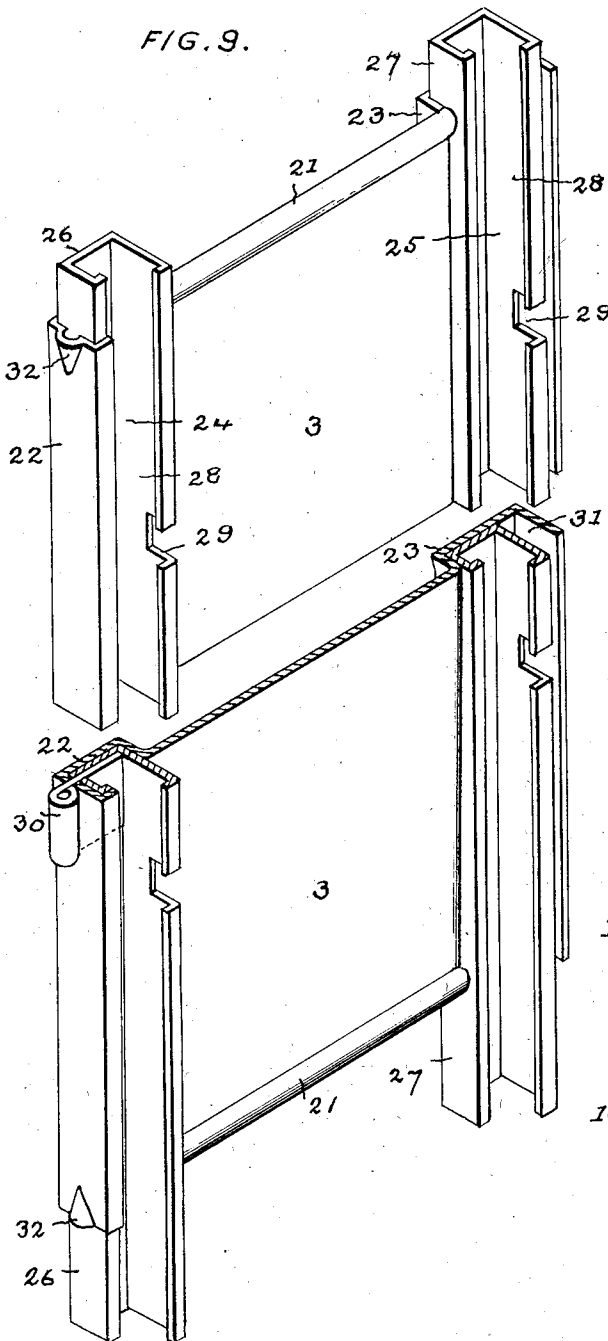
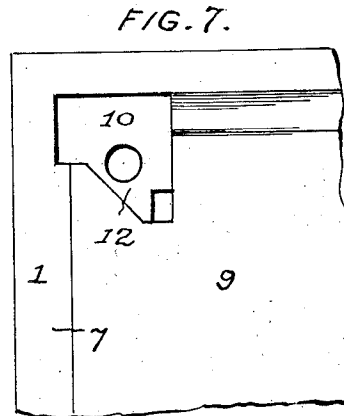
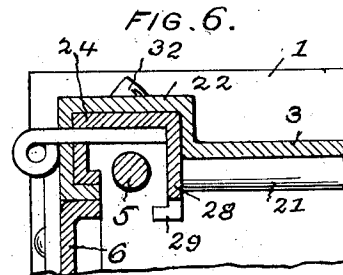
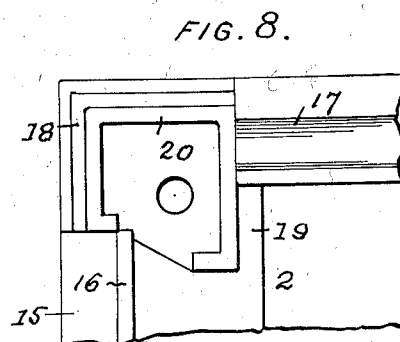
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INVENTOR:

FRANK ALBACH,

BY

Robert Burns

ATTORNEY.

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UNITED STATES PATENT OFFICE.

FRANK ALBACH, OF ST. LOUIS, MISSOURI, ASSIGNOR TO FRED MEDART MANUFACTURING COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

PLATE-METAL CABINET AND LIKE STRUCTURE.

Application filed December 8, 1926. Serial No. 152,783.

This invention relates to plate metal cabinets and like plate metal structures of the disconnectible or "knock-down" type, and has for its various objects:

5 To provide a structural formation of the sections of a cabinet or the like article, adapting said sections for substantial inter-connection in a convenient and rapid manner.

10 To provide a strong and substantial formation and combination of parts and means for securing the cabinet parts together in an erected condition, with the securing means having a remote location so as to be out of the way and not form obstructions in the chamber of the cabinet.

15 To provide a structural formation of the counterpart side walls of the cabinet, adapting said walls to provide substantial attachment of the hinge connections of the cabinet door or doors to the body of the cabinet, a ready and substantial connection of the side walls with the base and upper members of the cabinet, a like simple and substantial connection of the rear wall of the cabinet, with the construction providing an enclosing space for the main portion of the corner screw bolts by which the cabinet sections are substantially clamped together in proper assembled relation.

20 To provide a substantially counterpart structural formation of the upper and lower members of the structure adapting the same for substantial engagement with the end wall and with the side walls of the cabinet; all as will hereinafter more fully appear.

In the accompanying drawings:

40 Fig. 1, is a vertical section of a plate metal cabinet embodying the invention in an assembled relation of the parts.

Fig. 2, is a fragmentary transverse section on line 2—2, Fig. 1.

Fig. 3, is a detail horizontal section of the upper or cornice member on line 3—3, Fig. 1.

45 Fig. 4, is a similar section of the main or body portion, on line 4—4, Fig. 1.

Fig. 5, is a similar section of the base member, on line 5—5, Fig. 1.

50 Fig. 6 is an enlarged detail horizontal section on line 6—6, Fig. 1, showing the hinge connection for the cabinet door.

Fig. 7, is a bottom view of a corner portion of the upper or cornice member.

55 Fig. 8, is a top view of a corner portion of the base member.

Fig. 9, is a detail perspective view of one of the plate metal side walls of the structure.

Like reference numerals indicate like parts in the several views.

60 The present structure comprises in the preferred form shown, a base member 1, an upper or crown member 2, a pair of counterpart side walls 3, a rear wall 4, connecting screw bolts 5, and a hinged single or double 65 door 6, where the structure is intended to be of a close formation. In detail the invention involves a structural formation of the above mentioned parts, as follows:—

70 The base member 1 is preferably of a rectangular shape, is made of plate metal and having its vertical walls formed with upper and lower intumed flanges 7 and 8 affording the required strength and rigidity to the member, the upper intumed flange 7 being 75 formed with grooves and offsets as shown for the dual purpose of a fixed attachment of a top plate 9 to constitute the bottom surface of the chamber of the structure, and provide a holding means for the respective 80 lower ends of the side walls 3 and rear wall 4 of the structure.

At the four corners of the base member 1, socket formations 10 are fixedly secured for the reception of the hereinafter described depending tenons of the side walls 3 85 of the cabinet, with each of said socket formations preferably comprising a vertically arranged reinforcing plate 11, of an angular shape, fixedly secured in an inside corner 90 of the base member 1, to form an intermediate attachment for the aforesaid tubular socket member 10. Each socket member 10 is of a height approximating that of the interior of the base member 1, with its upper 95 end of an open formation registering with an orifice formed in the upper flange 7 of the base member 1 and with its lower end provided with an orificed bottom plate or web 12, providing a positioning means for one of 100 the connecting screw bolts 5 of the structure, as well as an abutment for the adjustable nut 13 of said screw bolt, said nut 13 being preferably of the sleeve type and adapted to depend below the base member 1 105 to constitute one of the supporting feet of the assembled structure.

In the preferred construction shown, each socket member 10 is of a vertically open sided and L form in cross-section, its verti- 110

cal bore being of a complementary shape to that of the hereinafter described depending tenons on the lower ends of the side walls 3 of the structure.

5 The upper or crown member 2 of the structure is of a rectangular plate metal formation corresponding with that of the base member 1 above described. The vertical walls of said upper member 2 are preferably formed
10 integral with top web or plate 14 of the member 2, with the front one of said vertical webs having an inturned flange 15 forming the upper margin of the entry or doorway of the cabinet, while the companion vertical rear and side walls of the member 2 are formed with bends 17 providing
15 open bottom grooves or channels for a holding reception of the upper ends of the respective side walls 3 and rear wall 4 of the structure. Adjacent to its respective corners the top web or plate 14 of the member 2 is formed with positioning orifices for the passage of the connecting screw bolts 5, and abutments for the fixed heads of said screw
20 bolts.

In manner similar to the base member 1, the upper or crown member 2 is provided at its respective inner corners with fixed tubular socket formations for the reception of
30 the hereinafter described upstanding tenons of the side walls 3 of the structure, and with each of said socket formations preferably comprising a reinforcing plate or web 18 fixedly attached in an inner corner of the
35 upper member 2 and consisting of a pair of vertical webs in angular relation and a top web 19 orificed for the passage of one of the connecting bolts 5 of the structure, while the front one of said vertical webs is formed
40 with an inturned flange 15 and a depending lip 16 to provide a stop for the hinged door 6 of the structure. In conjunction with said reinforcing plate or web 18 each socket formation consists of a socket piece or member
45 20, fixedly attached to the inner faces of the reinforcing plate or web 18, with each of said socket pieces 20 preferably of a similar formation in cross section to the heretofore described socket members 10 of the base
50 member 1 of the structure, with the lower end of each socket piece 20 of an open formation adapting it for a sliding reception and engagement with one of the hereinafter described upstanding tenons of a side wall 3
55 of the structure.

In the present improvement, the side walls 3 of the structure are formed of plate metal, with the respective upper and lower ends of each wall provided with reinforcing folds or
60 bends 21 that have holding engagement in the grooves formed by the bends 17 of the upper or crown member 2, and the like grooves formed by the upper flange 7 of the base member 1, heretofore described.

65 At its front and rear vertical edges, each

side wall 3 is formed with folded reinforcing bends, preferably of the detail formation hereinafter described and which constitute hollow pilasters 22 and 23 at the front and the rear of each side wall 3, providing hold-
70 ing channels for reinforcing rails 24 and 25, that extend the full vertical height of the side wall and project above and below the same to constitute attaching tenons 26 and 27 adapted to enter and have engagement
75 with the socket pieces or members 10 and 20 of the base member 1 and upper or crown member 2 of the structure.

The reinforcing rails 24 and 25 are fixedly attached within the aforesaid hollow pilasters or bends 22, 23 of a side wall 3, and are preferably of a hollow rectangular shape in cross section, and with the rear vertical flange or rib 28 of each rail extended towards the middle portion of the structure and hav-
80 ing notches 29 along its height adapted to receive and support a series of horizontal shelves or partitions in an adjustable manner.

At the front of the structure the bends or
90 pilasters 22 of the side walls 3 constitute the vertical jambs of a door opening of the structure, with the door 6 hinged thereto by hinges 30, one strap member of which is secured to the door 6, and the companion strap
95 member extending into the interior of a front pilaster 22 and tubular reinforcing rail 24 for substantial attachment in place. In such construction the hinges 30 are ordinarily of the detachable knuckle type.
100

At the rear of the structure, the bend or pilaster 23 of each side wall 3 extends a short distance back of its reinforcing rail 25, in order to provide vertical pockets 31 for the reception and holding in place a rein-
105 forced vertical end of the rear wall 4 of the structure.

At the respective upper and lower ends of the bends or pilasters 22 and 23, above described, the same are provided with stop lugs or bases 32 adapted to contact with the res-
110 pective under and upper faces of the upper member 2 and base member 1 to properly position the parts in an assembly operation.

The rear wall 4 of the structure is formed
115 by a flat sheet of plate metal, with the top, bottom and side edges thereof bent to constitute reinforcing folds 31 adapted for engagement in the heretofore described receiving grooves and channels in the base mem-
120 ber 1, upper member 2, and side walls 3, of the structure, to be firmly held in place in an assembled relation of the parts, yet capable of ready separation when a disassembly of the structure is deemed necessary.
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The connecting screw bolts 5 are of a length approximating the height of the structure and have at their upper ends fixed heads 34 and at their ends the adjustable sleeve nuts—heretofore described, which
130

sleeve nuts are preferably formed with lower expanded circular ends or beads 35 to afford ample extent of rest upon the floor in a support of the structure.

5 In the present construction the screw bolts 5 are individual to the corners of the structure, and pass down through the bore of the reinforcing rails 24, 25 of the pilaster portions of the side walls 3, with their fixed heads 34 having bearing contact with the top plate 14 of the upper or crown member 2, while their sleeve nuts 13 are adapted for bearing engagement against the horizontal webs 12 of the socket members of the base section 1 of the structure.

Having thus fully described my invention, what I claim and desire to secure by Letters Patent, is:—

1. In a knock-down plate metal structure 20 of the type described, the combination of a base member provided with fixed socket members adjacent to its corners, an upper member provided with similar and aligned socket members, a pair of side walls formed 25 with tubular pilasters having upwardly and downwardly projecting tubular tenons of a reduced size for engagement with the socket members aforesaid, the offsets thus formed at the meeting points of the pilasters and 30 tenons providing stop shoulders for positioning the parts, and screw bolts extending through said members and said pilasters for securing the parts in assembled relation.

2. In a knock-down plate metal structure 35 of the type described, the combination of a base member provided with fixed socket members at its corners, an upper member provided with similar socket members at its corners, a pair of side walls formed with 40 tubular pilasters at their front and rear edges, said pilasters having upwardly and downwardly projecting tubular tenons of a reduced size for engagement with the socket members aforesaid, and screw bolts extending 45 centrally through the pilasters and tenons, and through the upper and base members for securing the parts in assembled relation.

3. In a knock-down plate metal structure 50 of the type described, the combination of a base member provided with fixed socket members at its corners, an upper member provided with similar socket members at its corners, a pair of side walls formed at their 55 front and rear edges with tubular pilasters of an approximately rectangular form in cross section, said pilasters having upwardly and downwardly projecting tenons of a reduced size for engagement with the socket 60 members aforesaid, the offsets thus formed at the meeting points of the pilasters and tenons providing stop shoulders for positioning the parts, and screw bolts extending 65 through said members and said pilasters for securing the parts in assembled relation.

4. In a knock-down plate metal structure of the type described, the combination of a base member provided with fixed socket members at its corners, an upper member provided with similar socket members at its 70 corners, a pair of side walls formed with tubular pilasters at their front and rear edges, said pilasters having vertical ribs projecting towards the middle of the structure and formed with vertical series of 75 notches, said pilasters having in addition upwardly and downwardly projecting tubular tenons of a reduced size for engagement with the socket members aforesaid, the offsets thus formed at the meeting points of 80 the pilasters and tenons providing stop shoulders for positioning the parts, and screw bolts extending through said members and said pilasters for securing the parts in assembled relation. 85

5. In a knock-down plate metal structure of the type described, the combination of a base member provided with fixed socket members at its corners, an upper member provided with similar socket members at its 90 corners, a pair of side walls formed with tubular pilasters at their front and rear edges, tubular reinforcing rails secured inside pilasters with the ends of said rails projecting 95 above and below the side walls to form tenons for engagement with the socket members aforesaid, and connecting means for securing the parts in assembled relation.

6. In a knock-down plate metal structure of the type described, the combination of a 100 base member provided with fixed socket members at its corners, an upper member provided with similar socket members at its corners, a pair of side walls formed with 105 tubular pilasters at their front and rear edges, tubular reinforcing rails secured inside said pilasters with the ends of said rails projecting above and below the side walls to provide tenons for engagement with the 110 socket members aforesaid, and screw bolts extending through said members and said pilasters for securing the parts in assembled relation.

7. In a knock-down plate metal structure of the type described, the combination of a 115 base member provided with fixed socket members at its corners, an upper member provided with similar socket members at its corners, a pair of side walls formed with tubular pilasters at their front and rear edges, 120 tubular reinforcing rails secured inside said pilasters with the ends of said rails projecting above and below the side walls to form tenons for engagement with the socket members aforesaid, said rails having vertical 125 ribs projecting towards the middle of the structure and formed with vertical series of notches, and connecting means for securing the parts in assembled relation.

8. In a knock-down plate metal structure 130

of the type described, the combination of a base member provided with fixed socket members at its corners, an upper member provided with similar socket members at its corners, a pair of side walls formed with tubular pilasters at their front and rear edges, tubular reinforcing rails secured inside said pilasters with the ends of said rails projecting above and below the side walls to form tenons for engagement with the socket members aforesaid, said rails having vertical ribs projecting towards the middle of the structure and formed with vertical series of notches and screw bolts extending through said members and pilasters for securing the parts in assembled relation.

9. In a knock-down plate metal structure of the type described, the combination of a base member of a shell form and having a closed top web formed with grooves in its rear and side margins, socket members secured in the inner corners of said base member, a companion upper member having a closed top wall and intumed bottom flange, formed with open bottom grooves, socket members secured in the inner corners of said upper member, a pair of side walls formed with tubular pilasters at their front and rear edges, said pilasters having upwardly and downwardly projecting tubular tenons of a reduced size for engagement with the socket members aforesaid, the offsets thus formed at the meeting points of the pilasters and tenons providing stop shoulders for positioning the parts, and screw bolts extending through said members and pilasters for securing the parts in assembled relation.

10. In a knock-down plate metal structure of the type described, the combination of a base member of a shell form and having a closed top web formed with grooves in its rear and side margins, socket members secured in the inner corners of said base member, a companion upper member having a closed top wall and intumed bottom flange, formed with open bottom grooves, socket members secured in the inner corners of said upper member, a pair of side walls formed with tubular pilasters of an approximately rectangular form in cross section, said pilasters having upwardly and downwardly

projecting tubular tenons of a reduced size for engagement with the socket members aforesaid, the offsets thus formed at the meeting points of the pilasters and tenons providing stop shoulders for positioning the parts, and screw bolts extending through said members and pilasters for securing the parts in assembled relation.

11. In a knock-down plate metal structure of the type described, the combination of a base member provided with fixed socket members at its corners, an upper member provided with similar socket members at its corners, a pair of side walls formed with tubular pilasters at their front and rear edges, reinforcing rails in said pilasters, the rear pilaster of each side wall having a rearward extension formed with a flange to provide a receiving groove at the rear of the reinforcing rail of a rear pilaster, said reinforcing rails having upwardly and downwardly-projecting tenons for engagement with the socket members aforesaid, a rear wall of the structure engaging the aforesaid receiving grooves of the rear pilasters of the side walls, and connecting means for securing the parts in assembled relation.

12. In a knock-down plate metal structure of the type described, the combination of a base member provided with fixed socket members at its corners, an upper member provided with similar socket members at its corners, a pair of side walls formed with tubular pilasters at their front and rear edges, reinforcing rails in said pilasters, the rear pilaster of each side wall having a rearward extension formed with a flange to provide a receiving groove at the rear of the reinforcing rail of a rear pilaster, said reinforcing rails having upwardly and downwardly projecting tenons for engagement with the socket members aforesaid, a rear wall of the structure engaging the aforesaid receiving grooves of the side walls, and screw bolts extending through said members and pilasters for securing the parts in assembled relation.

Signed at St. Louis, Missouri, this 29th day of November, 1926.

FRANK ALBACH.