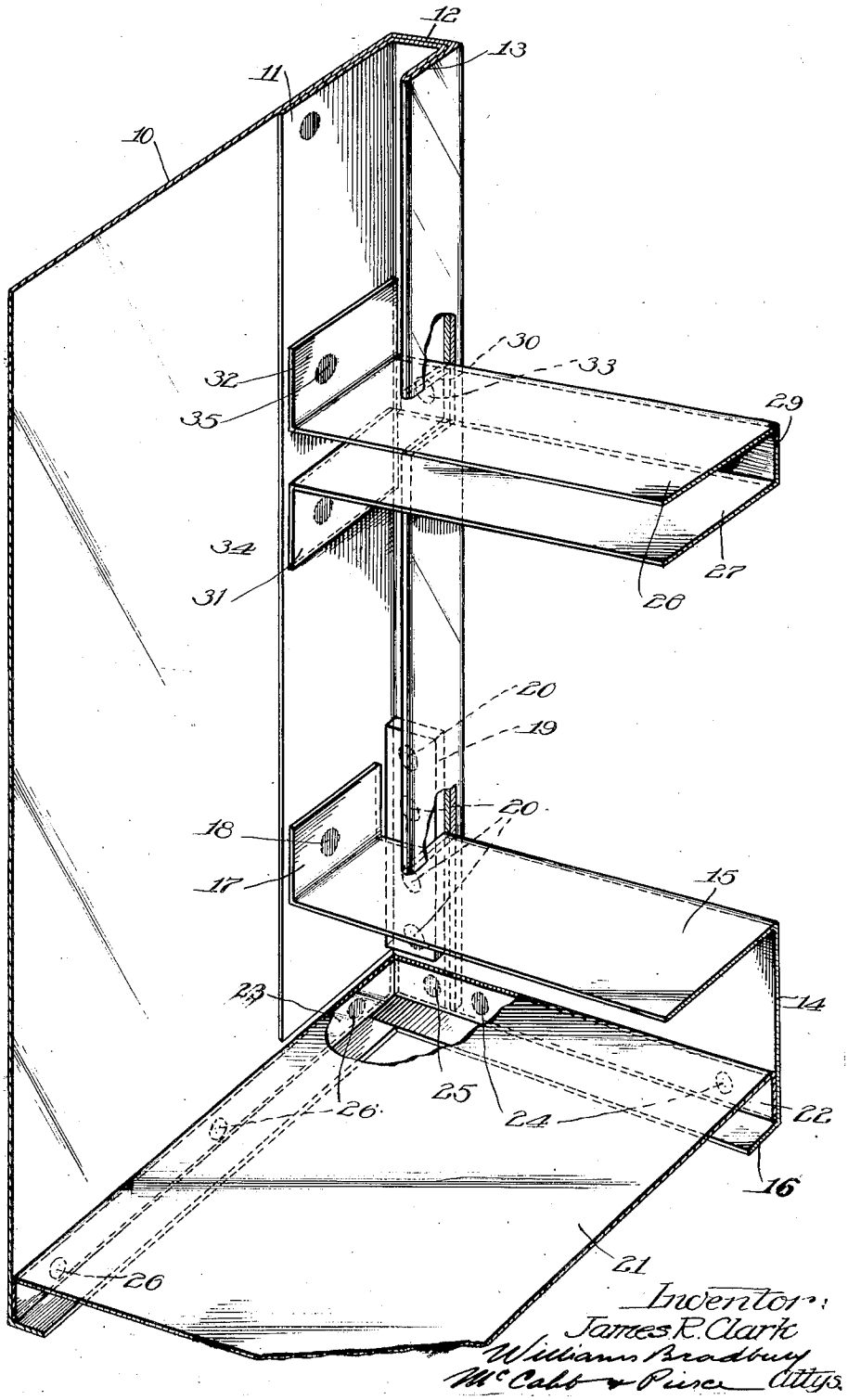
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J. R. CLARK

SHEET METAL FURNITURE

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SHEET-METAL FURNITURE.

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To all whom it may concern:

Be it known that I, JAMES R. CLARK, a citizen of the United States, and resident of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Sheet-Metal Furniture, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

This invention relates to the construction of sheet metal furniture such as desks, filing cabinets, etc.

The object of the invention is the provision of a sheet metal vertical supporting member, horizontal members and new and improved joints therebetween which will be exceedingly rigid, and which may be quickly and easily formed with the minimum amount of expert labor.

In the drawings, the figure is a perspective view of the right front corner of a desk or cabinet, as seen from the left rear corner.

It is thought the invention will best be understood by a detailed description thereof taken in connection with the accompanying drawing.

Referring now to the drawing, the end of the desk or cabinet comprises the external side member 10 having the rebent portion 11 integral therewith, the edge comprising the portions 10 and 11 being right angularly bent to form the edge 12, and then bent inwardly to form the return flange 13. Thus, the vertical corner of the cabinet or desk is in the nature of a channel formed of a double thickness of the side member 10.

The lower transverse base member consists of the vertical web 14, the upper horizontal flange 15 and the lower flange 16, the whole being in the form of a U or channel member with preferably the flange 15 wider than flange 16.

The rebent portion 11 at the lower end thereof is cut away for a distance equal to the width of the flange 23 of base closure 21 while the lower end of the edge 12 is not cut away. The flange 13 is cut away for a distance equal to the width of the web portion 14 of the base member. The flange 15 is provided at its inner end with an upturned portion 17 which is spot welded, as indicated at 18, to the overlapped portions of the members 10 and 11.

Placed in engagement with the inner surface of the member 12, and overlapping the end of the web 14, is a reinforcing strip or bar 19, the corner of the flange 15 and member 17 being cut away to permit the insertion of the member 19. The reinforcing member 19 is spot welded, as indicated at 20, to the member 12 and the flange 14, thus rigidly securing the parts together.

The base closure 21 has the downwardly turned flanges 22 and 23, the flange 22 being spot welded to the web 14, as indicated at 24, and to the web 14 and the outer portion of the flange 12, as indicated at 25. The flange 23 is spot welded to the lower edge of the end member 10, as indicated at 26.

The transverse supporting members, which may be arranged below each of the drawers except the lowermost one, may each comprise the parallel flanges 27 and 28 and the connecting web member 29, the members 27, 28 and 29 together forming a channel or U-shaped member.

The flange 13 is cut away a distance equal to the width of the transverse member, as indicated at 30, and the inner ends of the flanges 27 and 28 are turned at right angles, as indicated at 31 and 32, respectively. The transverse supporting member is snugly received by the cut away portion 30. The web 29 is spot welded, as indicated at 33, to both thicknesses of the web 12, and the end portions 31 and 32 are spot welded to the parts 10 and 11, as indicated at 34 and 35, respectively.

It will be noted that the inner end of the transverse member, comprising the parts 27, 28 and 29, is securely anchored to the end member by means of the spot welds 33, 34 and 35, and that the flanges 27 and 28 firmly engage the lower and upper edges, respectively, of the cut away portion 30. Thus vertical movement of the transverse member is prevented. In a similar manner, the flange 15 of the lower base member engages the lower edge of the flange 13, thus assisting in forming a rigid joint between the base member and the cabinet end.

By the arrangement in which the transverse members are brought into firm engagement with the ends of the cut away portions of the flange 13, the strains, due to vertical thrusts

on one of the transverse members, are distributed over substantially the entire transverse member, and the region of restraint is positioned as far from the end of the transverse member as is possible, thus greatly increasing the strength and rigidity of the connection.

While in the above description and in the accompanying drawings, applicant has disclosed but one series of details, it is to be understood that modifications are contemplated, and the invention, therefore, should be limited merely by the scope of the appended claims.

Having now described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. The combination with a sheet metal member having the edge thereof bent laterally and then backwardly, terminating in a flange substantially parallel to the plane of said member, of a member extending at right angles to the plane of said first mentioned member, said second mentioned member comprising a strip of sheet metal having two parts at substantially right angles to each other, said parts being arranged in firm engagement with the end of said flange and said laterally extending portion respectively, the part in engagement with the end of said flange being provided with a right angularly bent portion spot welded to said first mentioned member, the other said part being spot welded to said laterally extending portion.

2. The combination with a sheet metal member having one edge bent laterally and then backwardly and terminating in a flange substantially parallel to the plane of said member, of a member extending at substantially right angles to the plane of said first mentioned member, said second mentioned member being of sheet metal substantially channel shaped in cross section, one of the flanges of said second mentioned member being arranged in firm engagement with the end of said flange of said first mentioned member and provided with a right angularly bent end portion, means for securing said end portion to said first mentioned member, and means for securing the web of said channel shaped member to the laterally extending portion of said first mentioned member.

3. The combination with a sheet metal member having one edge doubled back to form a portion of double thickness, said double portion being bent laterally and then backwardly, terminating in a flange substantially parallel to the plane of said member, of a member extending at substantially right angles to the plane of said first mentioned member, said second mentioned member being of sheet metal substantially channel shaped in cross section, said backwardly extending flange being provided with a notch or cut away portion in which said channel shaped member is firmly received, the parallel flanges of said channel shaped member being provided with oppositely disposed right angularly bent end portions, means for securing said end portions to said first mentioned member, and means for securing the web of said channel shaped member to the laterally bent portion of said first mentioned member.

4. The combination with a sheet metal member having one edge doubled back to form a portion of double thickness, said double portion being bent laterally and then backwardly, terminating in a flange substantially parallel to the plane of said member, of a member extending at substantially right angles to the plane of said first mentioned member, said second mentioned member comprising a strip of sheet metal substantially U or channel shaped in cross section, said flange being cut away to provide a notch or recess snugly receiving said channel shaped member, the parallel flanges of said channel shaped member being provided with oppositely disposed right angularly bent end portions, said end portions being spot welded to the double portion of said first mentioned member, and the web of said channel shaped member being spot welded to the laterally bent portion of said first mentioned member.

5. The combination with a sheet metal member having the edge thereof bent laterally and then backwardly terminating in a flange substantially parallel to the plane of said member, of a member extending at right angles to the plane of said first-mentioned member, said second-mentioned member comprising a strip of metal having two flanges at substantially right angles to each other, one of said two flanges being arranged in engagement with the end of said first-mentioned flange, the other of said two flanges being in engagement with said laterally extending portion, said second-mentioned member being provided at the end thereof with a portion parallel to said first-mentioned member and permanently and rigidly secured to said first-mentioned member, one of said two flanges being permanently and rigidly secured to said laterally extending portion.

6. The combination with a sheet metal member having an edge thereof bent laterally and then backwardly terminating in a flange substantially parallel to the plane of said member, of a member extending at right angles to the plane of said first-mentioned member, said second-mentioned member comprising a strip of sheet metal having

two parts at substantially right angles to each other, said parts being arranged in firm engagement with the end of said flange and said laterally extending portion respectively, the part in engagement with the end of said flange having its end secured to said first-mentioned member, the other said part being secured to said laterally extending portion.

In witness whereof, I hereunto subscribe my name this 16 day of May, 1922.

JAMES R. CLARK.

Witnesses:
LEWIS F. SEUFFERT,
FRED W. ACKERMAN.