No. 786,338. PATENTED APR. 4, 1905.

J. H. ZIMMERMANN

TRANSFORMER RECEPTACLE OR CASE.

APPLICATION FILED APR. 18, 1903.

Fig. 1.

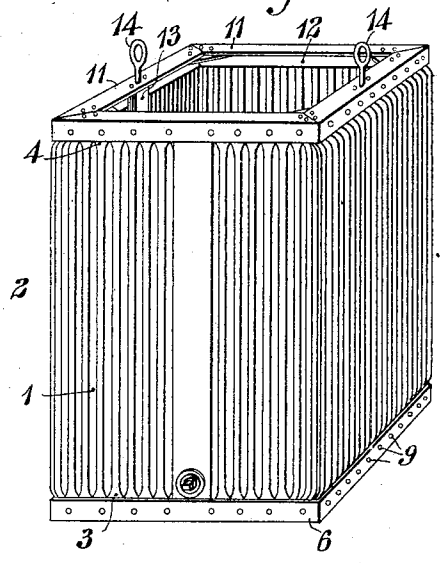


Fig. 2.

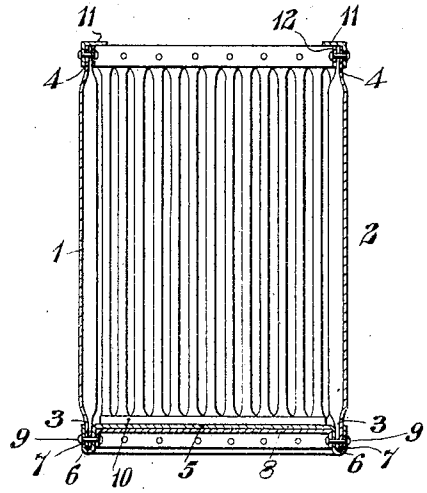


Fig. 3.

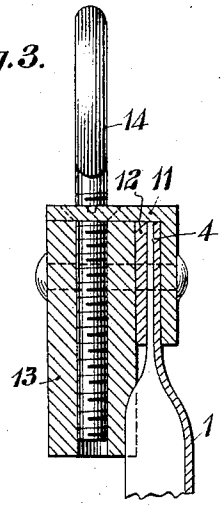


Fig. 4.

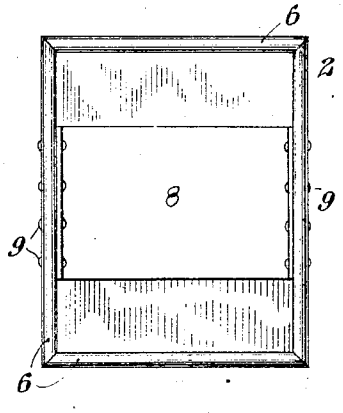


Fig. 5.

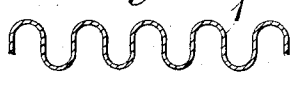


Fig. 6.



WITNESSES:

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No. 786,338. Patented April 4, 1905.

UNITED STATES PATENT OFFICE.

JOHN H. ZIMMERMANN, OF NEWARK, NEW JERSEY, ASSIGNOR TO WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, A CORPORATION OF PENNSYLVANIA.

TRANSFORMER RECEPTACLE OR CASE.

SPECIFICATION forming part of Letters Patent No. 786,338, dated April 4, 1905.

Application filed April 18, 1903. Serial No. 153,341.

To all whom it may concern

Be it known that I, JOHN H. ZIMMERMANN, a citizen of the United States, and a resident of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Transformer Receptacles or Cases, of which the following is a specification.

My invention relates to sheet-metal receptacles of corrugated or fluted construction which are employed for holding electrical transformers and the oil in which such transformers are immersed when in service; and it has for its object to provide a comparatively simple and inexpensive case or receptacle the parts of which may be securely fastened together without the use of large quantities of solder and which may be conveniently and cheaply braced and reinforced in such manner as to withstand the mechanical shocks and strains to which they may be subjected in transportation and in introducing and removing transformers.

It has been usual in constructing cases of the character above indicated to place the ends of the fluted sides in broad troughs or gutters formed in top and bottom castings and to then fill such troughs with solder, the quantity of which was so large as to be a very considerable item of expense. I propose to reduce the expense and improve the structure by crushing or compressing the ends of the fluted sides to approximately double the thickness of the sheet metal of which they are formed and to fasten such compressed ends, respectively, to the top and bottom parts by means of either solder or rivets, or by means of both.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a complete case. Fig. 2 is a vertical section through the case. Fig. 3 is a sectional view through an eyebolt and the upper part of one side of the case. Fig. 4 is a plan of the bottom of the case looking upward. Fig. 5 is a transverse section of a portion of one of the sides of the case. Fig. 6 is a view similar to Fig. 5 of a crushed or compressed portion of one of the sides.

The ends of the vertically fluted or corrugated sides 1 of the case 2 are crushed or compressed, as indicated at 3 and 4, by means of suitable tools or mechanism, and the edges of the bottom 5 of the case are bent to form deep narrow grooves 6, into which the ends 3 of the fluted sides 1 are set and securely fastened by means of solder 7, so as to make a strong and fluid-tight joint. The bent portions of the bottom 5, which form the troughs or gutters, constitute the legs or supporting portion of the case. To increase the stiffness of the case and to reinforce the bottom 5, a plate 8 of suitable material and dimensions is placed across the bottom of the case on the outside and is fastened to the edges by means of rivets 9. These rivets may also pass through the lower edges of the sides 1, as indicated in Fig. 2. A board 10 may be placed upon the upper face of the bottom 5 to protect it from injury when the transformer is put into the case.

To the outside of the crushed or compressed upper edges of the sides 1 are riveted pieces of angle-iron 11, suitable strips 12 being placed on the inside of the case at the top to prevent the rivet-heads from drawing through the sheet-iron. In order to stiffen the angle-iron 11, reinforcing-pieces 13 are riveted to said angle-iron at the places where the eyebolts 14 are to be attached, the latter being screwed into alining holes in the angle-irons 11 and the pieces 13.

From the foregoing description and the drawings it is seen that I have provided a very simple means for rendering fluted sheet-metal cases strong and durable and one which does not require large quantities of expensive materials.

While I have described my invention as applied to receptacles employed for holding transformers, I desire it to be understood that such receptacles may be otherwise utilized and that my invention is not to be construed as limited to any specific service to the exclusion of others to which it may be applicable.

I claim as my invention—

1. A receptacle having corrugated sheet-metal sides the upper and lower edges of which

are compressed to relatively small thickness, a sheet-metal bottom bent to form a narrow trough or gutter adjacent to its edges in which the compressed lower edges of the sides are seated and fastened by means of solder, a strengthening-plate in contact with the bottom of the receptacle and riveted to its edges, reinforcing and strengthening strips riveted to the compressed upper edges of the sides of the receptacle and eyebolts fastened thereto.

2. A receptacle having corrugated sheet-metal sides the upper and lower edges of which are crushed or compressed to small thickness, a sheet-metal bottom plate bent to form narrow troughs or gutters adjacent to its edges in which the compressed lower edges of the sides are seated and fastened by means of solder, a reinforcing-plate in contact with the outside of the sheet-metal bottom and riveted to its bent edges, angle-irons projecting at the outer sides and over the tops of the compressed upper edges and strengthening-strips inside said compressed edges, the angle-irons, edges and strips being riveted together.

In testimony whereof I have hereunto subscribed my name this 13th day of April, 1903.

JOHN H. ZIMMERMANN.

Witnesses:
ROBB MACKIE,
A. A. DITTMAR.