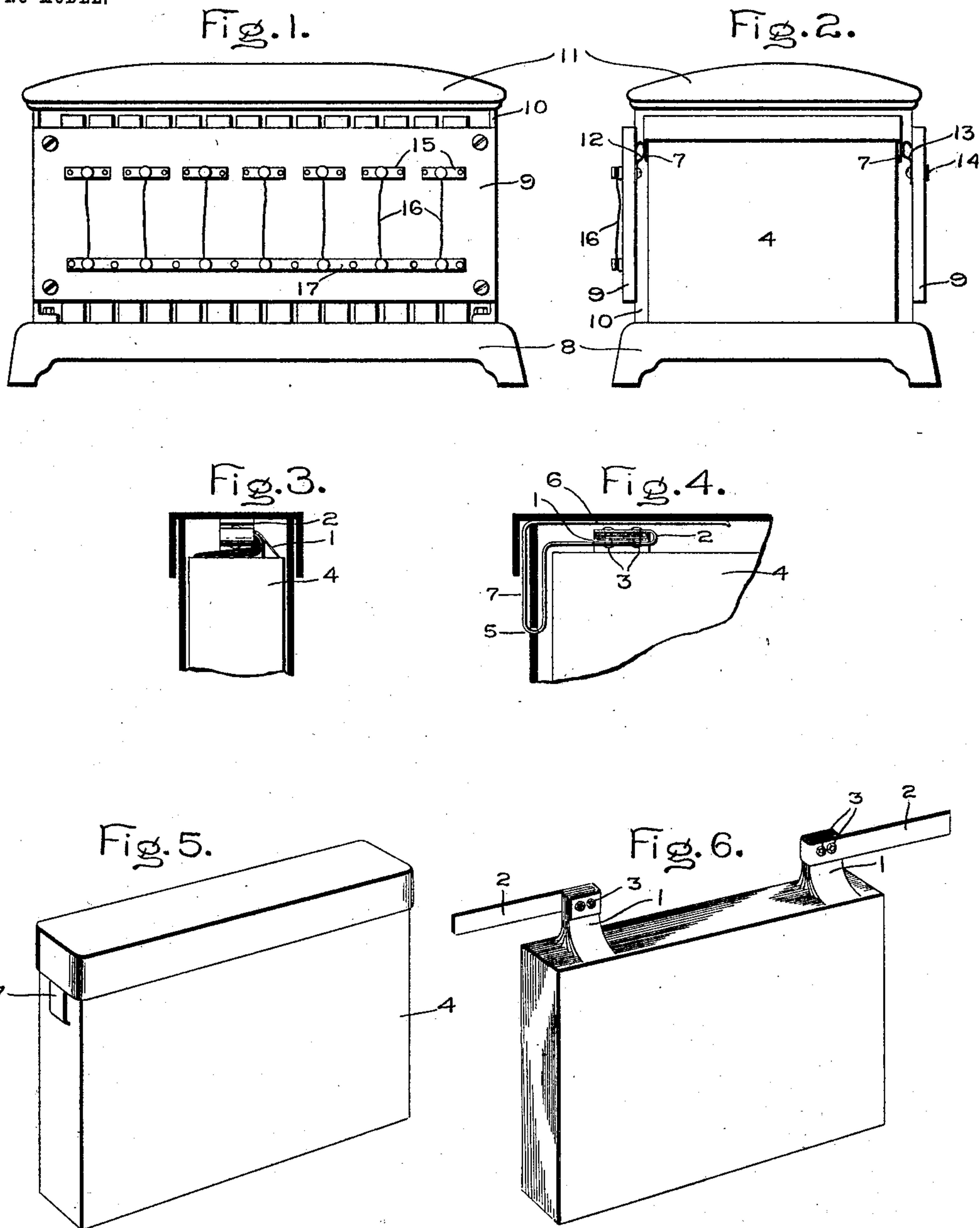


No. 756,991.

PATENTED APR. 12, 1904.

M. O. TROY.
ELECTRIC CONDENSER.
APPLICATION FILED JULY 19, 1902.

NO MODEL.



Witnesses:

George A. Thornton.
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UNITED STATES PATENT OFFICE.

MATTHEW O. TROY, OF LYNN, MASSACHUSETTS, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

ELECTRIC CONDENSER.

SPECIFICATION forming part of Letters Patent No. 756,991, dated April 12, 1904.

Application filed July 19, 1902. Serial No. 116,281. (No model.)

To all whom it may concern:

Be it known that I, MATTHEW O. TROY, a citizen of the United States, residing at Lynn, in the county of Essex, State of Massachusetts, have invented certain new and useful Improvements in Electric Condensers, of which the following is a specification.

My present invention relates to condensers of that type in which the condenser is formed in sections and the sections mounted or carried in a suitable retaining frame or receptacle, and comprises certain improvements in the individual sections and in means whereby the sections may be readily assembled in the frame and contact made between the sections and terminals located on or carried by the frame.

The novel features which I believe characterize my invention I have pointed out with particularity in the appended claims. The invention itself will be made clear by reference to the following description, which is to be taken in connection with the accompanying drawings representing one of the various embodiments which the invention may assume.

In the drawings, Figures 1 and 2 are side and end elevations, respectively, of a complete condenser embodying my invention; and Figs. 3 to 6, inclusive, detail views of a section of the condenser.

The working portion of each condenser-section consists of alternate layers of tin-foil with a suitable dielectric. Projecting portions of tin-foil extend from the opposite ends of one side of the bundle and constitute terminals or "ears," as they are sometimes called. One of these terminals or ears is represented at 1 in Figs. 4 and 5. In order to make a suitable contact or terminal for the condenser-section, I connect to each of the ears a strip of copper or other good conducting material 2, the connection being afforded by bending one end of the strip around the end of the ear and then squeezing the copper strip against the ear and securing the same in place by eyelets 3, such as are commonly used for fastening papers or by some other suitable securing device. Each projecting ear, with its attached terminal or strip of copper

2, is then bent over and the strip pressed flat against the top of the condenser-section, as indicated in Figs. 3 and 4.

The condenser-section is then inserted in a close-fitting case 4, of tough pressed board or other suitable fibrous material. The terminal strip 2 of each ear is then passed out through an opening 5 in the edge of the case and the projecting end brought up over the top of the edge and bent back over the ear, as indicated at 6 in Fig. 4. The cover of the case is then placed in position, thereby leaving the completed condenser-section as shown in Fig. 5. Each edge of the condenser-section is therefore provided with exposed portions 7 of the terminals or leads of the condenser, whereby contact may be made with coöperating springs or spring-pressed contacts provided in the retaining-frame of the condenser. This retaining-frame consists, as shown in Figs. 1 and 2, of a base 8, having walls 9 extending upwardly therefrom and provided at the top with a cover 11. The walls, such as 9, are arranged so as to leave openings between the base 8 and the cover 11, whereby a circulation of air is permitted through the sections of the condenser. The base also may be of skeleton construction to facilitate such circulation.

The side walls 9 are provided with rows 12 13 of contact-springs. The several sections of the condenser are inserted in the condenser-frame after the cover has been removed, so as to slide down between corresponding pairs of contact-springs. When a section has been inserted in its proper position, as indicated in Fig. 2, its exposed terminals 7 engage the corresponding pair of springs 12 13, thereby connecting the section in circuit with the external condenser-terminals mounted on the outside of the condenser-frame, as shown at 14 15. Each outside terminal 15 is connected to two adjacent contact-springs 12 and is also connected through a fuse, such as 16, with a main terminal or bus-bar 17. As thus arranged it will be noted that each fuse is in series with each of two adjacent condenser-sections. The fuses which I have indicated are of the ordinary exposed fusible wire; but it

is evident that any other type of fuse—such, for example, as an inclosed fuse—may be used, if desired.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination of a condenser, a case for the condenser, and a lead extending from a terminal of the condenser out through an opening in the case and then back into the case.
2. The combination of a condenser, an ear extending therefrom, and a lead or terminal therefor, consisting of a strip of metal bent around the ear and fastened thereto.
3. The combination of a condenser, a case therefor, an ear extending from the condenser, a terminal or lead consisting of a strip of conducting material bent around and secured to the ear, and then bent over so as to lie parallel with or flat against the edge of the condenser, the end of said strip being passed out through an opening in the case and then laid flat against the side of the case, and a cover for said case.
4. The combination of a case for a condenser, consisting of a body portion and a cover therefor, and a terminal for the condenser, consist-

ing of a flat piece of metal lying flat against an outside edge of the case.

5. The combination of a sectional condenser, a retaining frame or receptacle for the sections of the condenser, terminals carried by the frame or receptacle, and a cover removable for permitting any section of the condenser to be inserted in or withdrawn from the receptacle, thereby automatically making or breaking contact with terminals carried by the receptacle.

6. The combination of a retaining frame or receptacle, contact springs or terminals carried by opposite walls of said frame or receptacle, and a plurality of condenser-sections each provided with terminals arranged so that when the section is inserted in or removed from the frame or receptacle the terminals of the condenser-section make or break connection with corresponding terminals on said frame or receptacle.

In witness whereof I have hereunto set my hand this 16th day of July, 1902.

MATTHEW O. TROY.

Witnesses:

ALEX. F. MACDONALD,
BENJAMIN B. HULL.