

March 1, 1927.

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1,619,201

CONDENSER

Filed April 29, 1926

FIG. 1

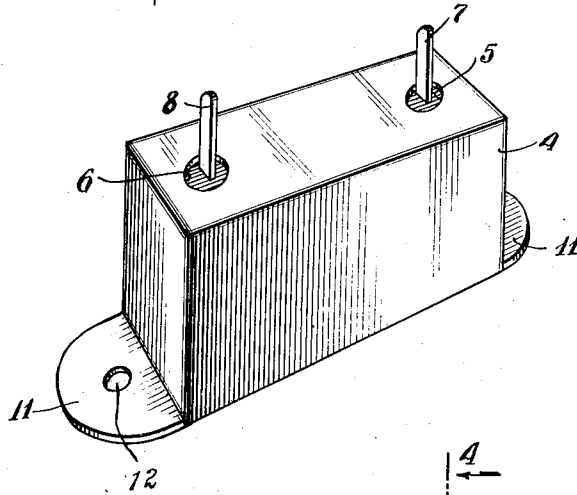


FIG. 2

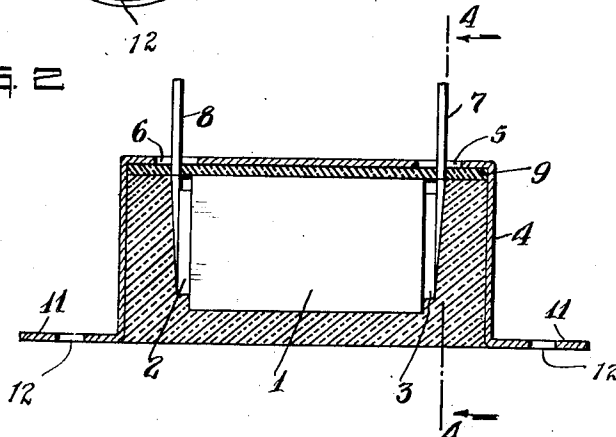


FIG. 3

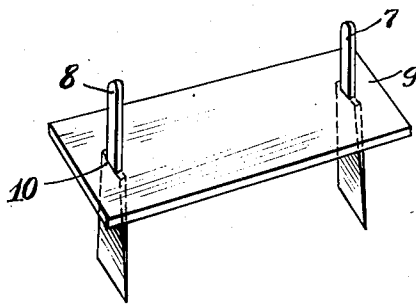
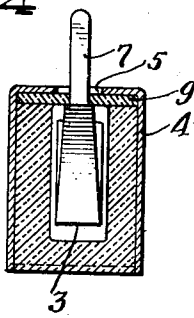


FIG. 4



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CONDENSER.

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This invention relates to improvements in electrical condensers; particularly electrical condensers which are to be enclosed in a housing and to be connected to a circuit exterior to said housing.

An object of the invention is to provide an electrical condenser with a housing therefor, and terminals to project through the housing and enable the condenser to be connected in a circuit in which it is to operate, and to devise for this purpose a construction which is simple, easy, and cheap to make, and yet quite efficient in practice.

The drawings disclose the best form of my invention now known to me, but I may, of course resort to variations not illustrated herein without departing from the spirit of my invention, or exceeding the scope of the appended claims.

On the drawings:

Figure 1 is a perspective view of a housing for a condenser according to my invention.

Figure 2 is a longitudinal sectional view of such a housing;

Figure 3 is a perspective view of a supporting plate through which the terminals of the condenser project, and

Fig. 4 is a cross-sectional view of the housing with an end view of the condenser body.

The same numerals identify the same parts throughout.

The numeral 1 indicates the body of the condenser that may be of the type known as a rolled condenser made up of layers in the form of sheets or strips of thin metal foil separated by insulation and wound up in the form of a roll which can be more or less flattened if desired, one of the conductive strips or elements of this condenser has the edges of the turns thereof shown as projecting from one end of the body, as indicated at 2; and the other element of opposite polarity has its turns shown as projecting at their edges from the opposite end of the body, as indicated at 3, and the condenser is enclosed in a housing or case 4. This housing is open at the bottom, and has a closed top with openings 5 and 6 through which project the terminals 7 and 8 of the condenser. One of these terminals is attached to each of the elements 2 and 3 of opposite polarity, and between the body of the con-

denser 1 and the top of the housing 4 is a strip of insulation of paper or other suitable material having apertures adjacent the apertures 5 and 6, through which the terminal tabs 7 and 8 are passed. Such apertures are indicated by the numeral 10. The condenser 1, with one of the tabs 7 attached to the edges of the turns of the element 3, and the other tab attached by solder or in any other suitable manner, to the edges of the turns of the elements 2 and both tabs passing through the apertures 10 of the strip 9, is then disposed against the inner surface of the top of the casing 4, so that the tabs 7 and 8 project through the openings 5 and 6 to the extent required; but to gain this result, the casing 4 may be inverted so that the strip 9 will lie against the inside of the surface of the top of the casing; and then the whole condenser may be embedded in wax by pouring wax into the casing 4 until the casing is filled. When the wax cools and solidifies, it will adhere to the inside of the surfaces of the casing and prevent the condenser 1 from falling out even when the top is turned up and the open bottom turned down. The condenser can then be mounted in any desired position on a panel or other support, and for this purpose it is provided with projections 11 at its opposite ends in which are openings 12 to receive suitable fastening means.

The inner ends of the terminal tabs 7 and 8 are swaged so that these inner ends can be soldered to advantage to the elements 2 and 3; and the strip 9 of insulation, when the casing is inverted to be filled with wax, serves to prevent the wax from flowing through the holes 5 and 6. This strip also positions the condenser in the middle of the casing 4, holding it away from the sides and ends of the casing when this casing is filled with wax, and making a lining for the interior of the box or container. The box 4 is generally of metal, such as tin, and the openings 5 and 6 are large enough to clear the projecting ends of the tabs 7 and 8 so that the edges of these openings do not touch these tabs. Hence the condenser is well housed in a strong metal container, and the two terminals are always disconnected, and no danger of short short circuiting exists.

Having described my invention, what I

believe to be new and desire to secure and protect by Letters Patent of the United States is:—

1. A condenser comprising a rolled body, a casing in which the body is disposed, the casing having openings adjacent opposite ends of the body, a terminal in the form of a flat relatively wide strip secured to each of the opposite ends of the body, the terminals projecting through said openings, an insulating embedment sealing the condenser in the casing, and perforated metallic lugs carried by the casing, and projecting one at each end thereof.
2. A condenser comprising a rolled body, a casing in which the body is disposed, the casing having openings adjacent opposite ends of the body, a strip in the casing extending from end to end of same over said openings, a terminal in the form of a flat relatively wide strip secured to each of the opposite ends of the body, the terminals projecting through said strip and said openings, an insulating embedment sealing the condenser in the casing, and perforated metallic lugs forming a part of the casing, and projecting one at each end thereof.
3. A condenser comprising a rolled body, a metallic casing in which the body is dis-

posed, said casing being closed at the ends, sides and top, but open at the bottom, and having openings in the top adjacent the opposite ends of the body, terminals secured to each of the opposite ends of the body and projecting through said openings, an insulating embedment sealing the condenser in the casing and filling the casing between the top and bottom thereof, and perforated metallic lugs carried by the casing and projecting one at each end thereof.

4. A condenser comprising a rolled body, a metallic casing in which the body is disposed, the casing being closed at the top, sides and ends, but open at the bottom, and having openings at the top adjacent the opposite ends of the body, a strip in the casing extending from end to end of same over said openings, terminals secured to each of the opposite ends of the body and projecting through said strip and said openings, an insulating embedment sealing the condenser between top and bottom, and perforated metallic lugs carried by the casing and projecting each at one end thereof.

In testimony whereof I affix my signature.

JOSEPH A. FRIED.