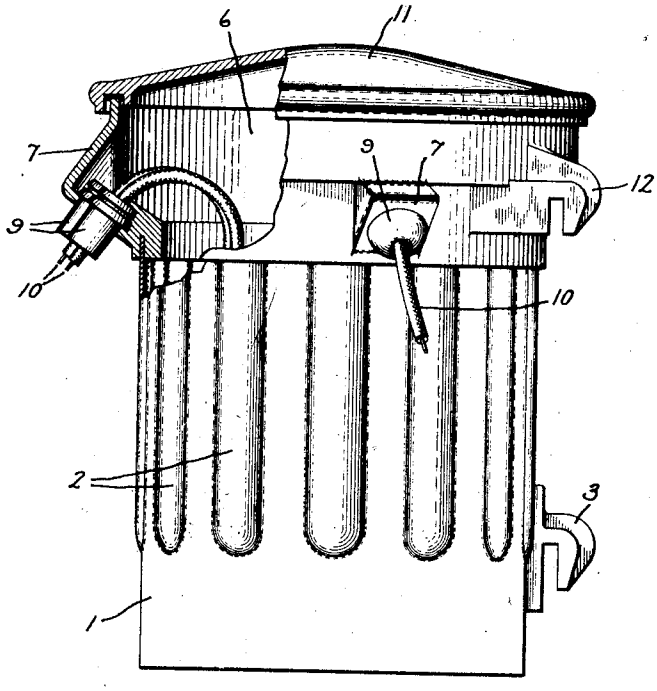
Mar. 13, 1923.

1,448,023

W. J. WOOLDRIDGE

TANK

Filed Feb. 14, 1919



Inventor:
William J. Wooldridge,
by Albert G. Davis
His Attorney.

Patented Mar. 13, 1923. 1,448,023

UNITED STATES PATENT OFFICE.

WILLIAM J. WOOLDRIDGE, OF PITTSFIELD, MASSACHUSETTS, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

TANK.

Application filed February 14, 1919. Serial No. 277,120.

To all whom it may concern:

Be it known that I, WILLIAM J. WOOLDRIDGE, a citizen of the United States, residing at Pittsfield, in the county of Berkshire, State of Massachusetts, have invented certain new and useful Improvements in Tanks, of which the following is a specification.

My invention relates to tanks for induction apparatus, and particularly to tanks for induction apparatus of small sizes such as are commonly hung on poles. Among the induction apparatus most commonly hung on poles are the well known stationary transformers, both movable coil and stationary coil constant current transformers, some regulators, some reactances, etc.

The object of my invention is to provide a tank for such apparatus which is light and inexpensive. The tank of my invention comprises a lower tank member of which the bottom and sides are formed of a single piece of drawn sheet metal, and an upper tank member of cast metal for carrying the bushings for the conductors; a cover for closing the tank rests on the top member. Prior to my invention, two types of small tanks were commonly made, namely those entirely of cast metal and those entirely of pressed or drawn metal, the latter generally of steel. Cast tanks, while readily made, are heavy. Pressed or drawn metal tanks are light and very attractive. However, because of the complex shape of the tank adjacent the openings for the bushings, it is expensive to make and to keep the necessary dies in repair for drawing the presssed tanks known prior to my invention, for in such pressed or drawn tanks the bushing pockets are formed in the drawn metal. My invention avoids these expensive dies; the drawn part of my tank is very simple and is made with very simple dies, while the complex part of the tank, that adjacent the bushing pockets, is cast to the desired shape. Preferably I provide some small corrugations in the lower, drawn metal, tank member, which not only tend to take up the natural crimp of the drawing or pressing but also give slightly increased radiating surface, and what is more important, give a little flexibility which is desirable when the cast upper tank member is cooling. These corrugations need extend only part way down the lower tank member.

In the accompanying drawing and the following description, I have illustrated and described in some detail the best embodiment of my invention of which I am now aware. The single figure of the drawing illustrates in elevation and partly in section a tank embodying my invention.

The lower tank member 1 comprises a unitary piece of sheet metal drawn or pressed into the generally cylindrical shape shown, the single piece of sheet metal providing the bottom of the tank as well as the vertical sides. In the drawing or pressing of this lower member of the tank, some shallow corrugations 2 are preferably provided both to take up to some extent the natural crimp of the drawing or pressing of the metal piece 1 into its final shape, and to give a slightly increased radiating surface during the operation of the device enclosed in the tank, and also what is more important to give a little flexibility when the cast metal top part of the tank is cooling. Near the lower end of the tank may be provided one or more hooks 3 for hanging the tank. It will be observed that the tank member 1 may be very simple in configuration, being little more than a simple container. Such a shape is quite simply drawn or pressed and requires very simple dies. About the top end of the lower tank member 1 is cast the upper tank member 6 of any suitable metal, generally iron. This upper member 6 is a hollow piece generally conforming to the outline of the plan view of the tank member 1. The upper member 6 is provided with the required bushing pockets 7, in which are placed the insulating bushings 9 through which pass the conductors 10 from the apparatus or device contained in the tank. A cover 11 of any suitable construction resting on the member 6, closes the tank. Another or other hooks 12, cast with or otherwise attached to the member 6, provide the hanging means co-operating with the hook or hooks 3.

It will be observed that the tank of my invention is light, simple and inexpensive, and readily made because the major part thereof, that is the lower tank member 1, is drawn or pressed, because this lower member 1 is readily made with simple and comparatively inexpensive dies which are readily kept in repair (since the tank member 1 is

of simple configuration), and because the more complex part of the tank, that is the part adjacent the bushings, is provided by the cast metal of the member 6. A cast member may be readily made in the complex shape required by the part of the tank carrying the insulating bushings. The two parts are readily attached together by initially casting the part 6 in place about the top end of the tank member 1.

While I have illustrated and described the best embodiment of my invention of which I am now aware, it will be understood that this embodiment is merely illustrative of my invention and that my invention is not limited thereto but is set forth in the following claim.

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

In casings for electrical apparatus, the combination with a drawn sheet metal lower member having bottom and sides, of a cast metal top member formed to have a predetermined desired configuration, said top member being cast on said lower member, said latter member being provided with shallow vertical corrugations extending into said cast top member whereby it can readily accommodate itself to thermal expansion and contraction, and a cover adapted to seat on said top member.

In witness whereof, I have hereunto set my hand this 12th day of February, 1919.

WILLIAM J. WOOLDRIDGE.