F. W. SALMON.

BEARING.

APPLICATION FILED OCT. 21, 1908.

914.520. Patented Mar. 9, 1909.

Fig. 1.

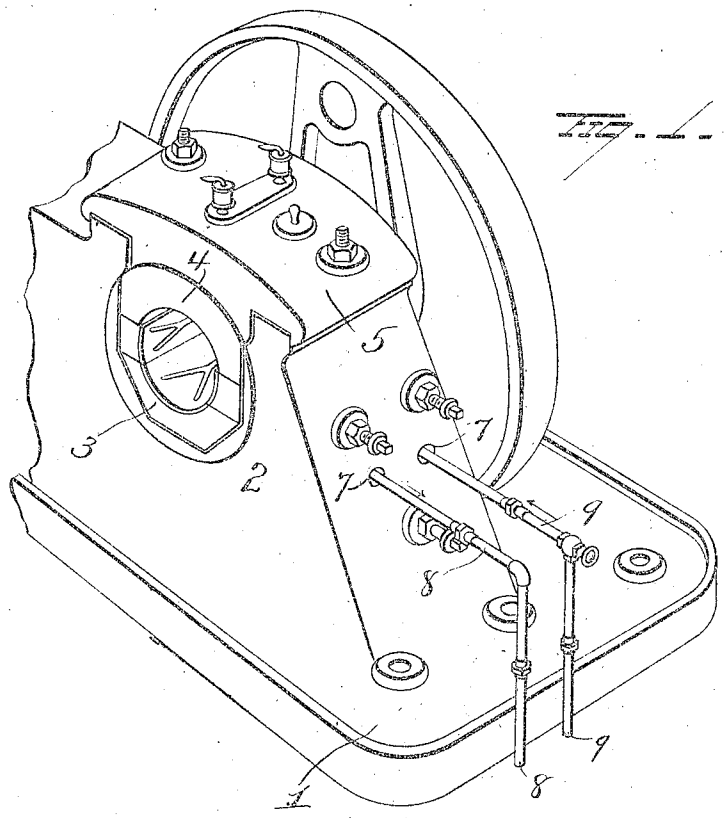
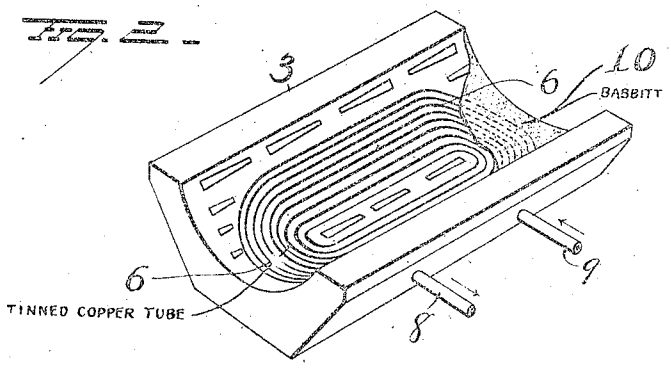


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

FREDERICK W. SALMON, OF BURLINGTON, IOWA.

BEARING.

No. 914,520. Specification of Letters Patent. Patented March 9, 1909.

Application filed October 21, 1908. Serial No. 458,830.

To all whom it may concern:

Be it known that I, FREDERICK W. SALMON, of Burlington, in the county of Des Moines and State of Iowa, have invented certain new and useful Improvements in Bearings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in bearings and more particularly to cooling means therefor, the object of the invention being to locate and secure a cooling coil within a bearing in such manner as to render it impossible for a heating insulating film of oil to get between the Babbitt metal in the bearing and the water cooled surface of the coil.

With this object in view the invention consists in certain novel features of construction and combinations of parts as hereinafter set forth and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view illustrating the application of my invention, and Fig. 2 is an enlarged detail view showing the location of the cooling coil within the bearing, the Babbitt metal being broken away to show the coil.

1 represents a base from which a standard 2 rises, and the latter is recessed for the reception of bearing boxes 3, 4. These boxes coöperate to form a shaft bearing and the upper box 4 is enlarged and forms a cap 5 which is secured to the top of the standard 2. My improved cooling means are located in the lower box or half bearing 3 and in constructing the same, I proceed as follows: The interior of the box 3 is provided with a recess in which is fitted a coil 6, preferably of thin copper tubing having its exterior tinned. The recess in box 3 is of greater depth than the diameter of the tubing so that when the coil is placed within said recess, there will be sufficient space over the same to receive the Babbitt metal lining 10 of the box. After the coil has been placed into position, the Babbitt metal will be poured into the box and will become soldered to the tinned copper tubing. By causing such an intimate relation between the Babbitt metal and the tubing which forms the coil, it will be impossible for any heat-insulating film of oil to find its way between the Babbitt metal lining of the box and the water cooled surface afforded by the coil.

The respective ends of the coil 6 project through the bearing box 3 and also through suitable openings 7 in the standard 2 and are connected with pipes 8, 9, for establishing circulation of water through the coil from any convenient source of supply.

Slight changes might be made in the form and construction of the details shown in the drawings without departing from the spirit of my invention or limiting its scope, and hence I do not wish to restrict myself to such details.

Having fully described my invention what I claim as new and desire to secure by Letters Patent, is,—

1. The combination with a bearing box member having a recess therein, of a cooling coil located within said recess and Babbitt metal covering said coil and united thereto.

2. The combination with a bearing box member having a recess therein, of a cooling coil within said recess, said cooling coil consisting of copper tubing having its exterior tinned, and Babbitt metal covering said coil and soldered thereto.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

FREDERICK W. SALMON.

Witnesses:
CHAS. C. CLARK,
MARY FAWCETT.