H. R. VAN DEVENTER.

CASING FOR FLY WHEEL MAGNETOS.

APPLICATION FILED APR. 21, 1917.

1,283,373. Patented Oct. 29, 1918.

Fig. 2.

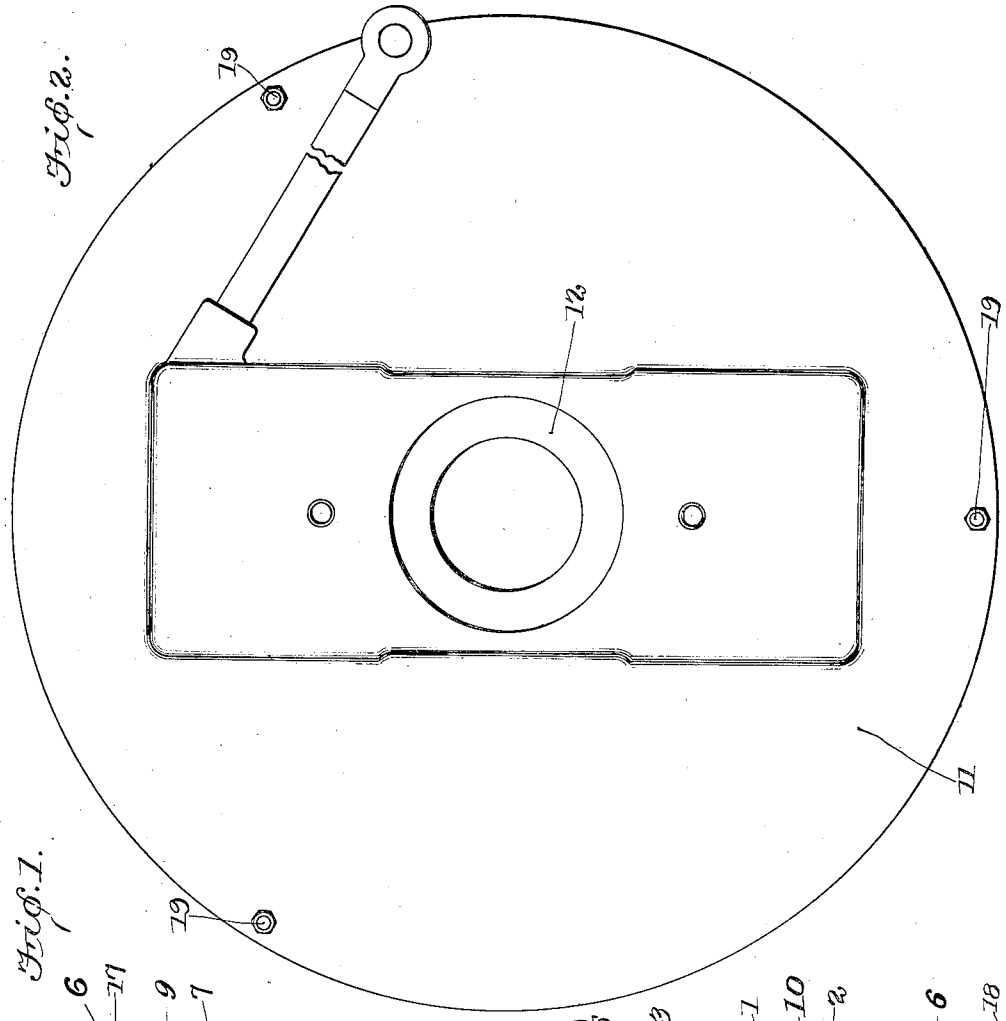
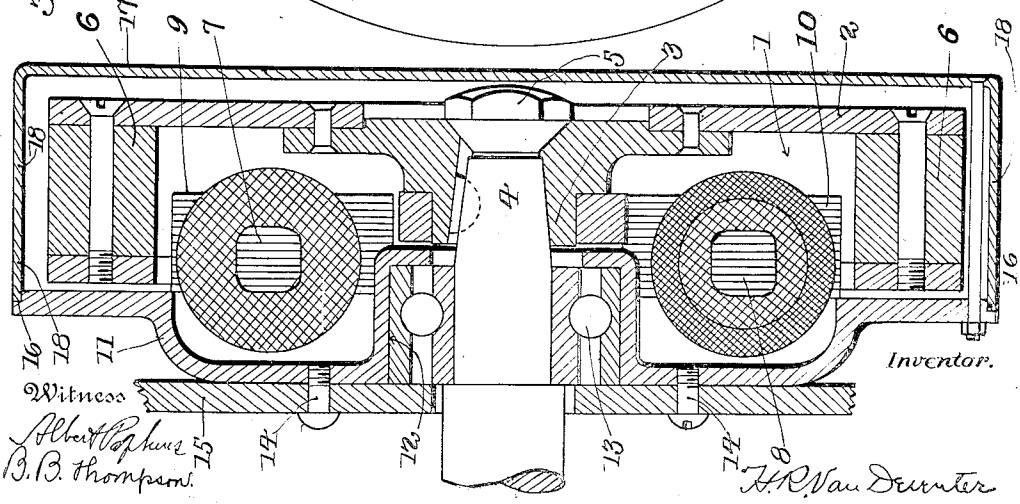


Fig. 1.



Witness
Albert Popkins
B. B. Thompson.

Inventor.
H. R. Van Deventer

UNITED STATES PATENT OFFICE.

HARRY RANDOLPH VAN DEVENTER, OF SUMTER, SOUTH CAROLINA, ASSIGNOR TO SPLITDORF ELECTRICAL COMPANY, OF NEWARK, NEW JERSEY, A CORPORATION OF NEW JERSEY.

CASING FOR FLY-WHEEL MAGNETOS.

1,283,373. Specification of Letters Patent. Patented Oct. 29, 1918.

Application filed April 21, 1917. Serial No. 163,586.

To all whom it may concern:

Be it known that I, HARRY R. VAN DEVENTER, a citizen of the United States, residing at Sumter, in the county of Sumter and State of South Carolina, have invented certain new and useful Improvements in Casings for Fly-Wheel Magnetos, of which the following is a specification, reference being had to the accompanying drawing.

The invention relates to new and useful improvements in electric generators, such as fly wheel magnetos and more particularly to the casing for the same.

An object of the invention is to provide a fly wheel magneto with an inclosing casing which is stationary and which is also dust and water proof.

A further object of the invention is to provide a casing of the above character, which may be readily removed without stopping the magneto and wherein the casing is independent of the magnets so that the same may be made of sheet steel or the like.

In the drawings, which show by way of illustration, one embodiment of the invention:—

Figure 1 is a sectional view through a magneto having my improved casing applied thereto, said section being taken in a plane passing through the axis of rotation of the magnet; and

Fig. 2 is a rear view of the same.

I have shown my invention applied to a fly wheel magnet 1 which is circular in form. This circular magnet is carried by a non-magnetic plate 2, which is secured to a hub 3, keyed to the engine shaft at 4 and held thereon by a nut 5. The circular magnet is provided, as herein shown, with four pole pieces, indicated at 6. Located within the circular magnet are two flux receiving members 7 and 8, which are provided with pole shoes 9—9 and 10—10, respectively. The flux receiving member 7 is provided with a winding which may be used for lighting purposes, while the flux receiving member 8 is provided with primary and secondary windings which are used for ignition purposes. These flux receiving members are secured to a back plate 11. This back plate is formed with a socket 12 for a ball bearing 13 which serves as a bearing for the engine shaft. The back plate is secured by suitable screws 14 to the frame of the engine, which is indicated at 15. This back plate 11 extends outwardly to a point beyond the path of rotation of the extreme parts of the circular magnet and is formed with a seat 16 for the casing 17 which surrounds the parts of the magneto.

The casing has a front plate and a flange 18 extending at right angles to the front plate. The inner edge of this flange rests in the seat 16. The casing is secured to the back plate by bolts 19 which are three in number, as indicated in the drawings. These bolts are provided with heads which engage the casing and they extend through the back plate where they receive nuts and this serves as a means for clamping the casing firmly against the back plate. A suitable packing may be used if desired, so that the connection between the back plate and the casing is not only dust proof but water proof and thus all the inner rotating parts will be thoroughly protected from dust and moisture. It will be noted that the casing is secured to the back plate which is fixed to the frame and, therefore, the casing is stationary while the circular magnet rotates within the same. It will also be noted that this casing may be readily removed without stopping the moving parts of the magneto, so that access may be readily had to the interior of the structure to inspect the same without stopping the engine.

It is obvious that minor changes in the details of construction and arrangement of parts may be made without departing from the spirit of the invention, as set forth in the appended claims.

Having thus described my invention, what I desire to secure by Letters Patent of the United States, is:

1. The combination of a rotatable shaft, a circular magnet fixed to the end of the shaft and rotating therewith and serving as a fly wheel for said shaft, a stationary back plate through which said shaft projects, flux receiving members attached to said back plate and associated with said magnet, a casing fixed to said back plate and inclosing the rotating circular magnet and the end of said shaft.

2. The combination of a rotable shaft, a circular magnet mounted thereon and rotating therewith and serving as a fly wheel for said shaft, a stationary back plate having a ball bearing through which said shaft extends, flux receiving members fixed to said

back plate and associated with said magnet, said back plate extending beyond the circular magnet and having a seat formed therein, a casing comprising a face plate and a flange, the inner edge of said flange being adapted to engage said seat and bolts for securing said casing to the back plate, said casing being imperforate and entirely inclosing the rotating magnet whereby the same is protected from dust and moisture.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

HARRY RANDOLPH VAN DEVENTER.