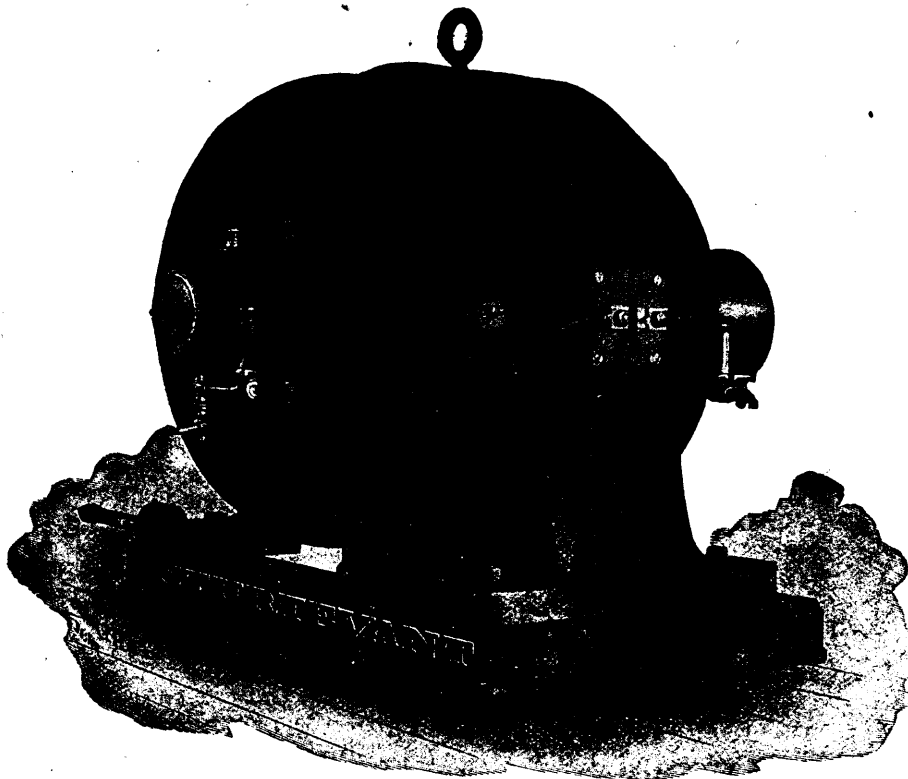


all requirements for a high-class medium speed machine, and have all the latest and most improved features of construction, and are adapted for either belted or direct connection.

The magnet frame is of special magnet steel and has the field cores cast with the frame. On the small sizes the ring is cast in one piece, but in larger sizes it is split to facilitate the removal of the armature so as to reduce the weight of each individual part. Pole shoes are of cast iron secured to the field cores by cap screws, and being readily detachable allow the field coils to be easily repaired

In the design of this machine special care has been taken to provide for the most perfect circulation of air through the commutator and armature, and for ample radiating surface in the casings so as to avoid all possibility of overheating. As a result machines of this type can be operated constantly for ten hours at full rated load without sparking, and with a temperature rise not exceeding fifty degrees centigrade above that of the surrounding atmosphere.

The armature is of the barrel wound toothed drum type. Ventilation is effected by the use of specially constructed



ENCLOSED FOUR-POLE MOTOR.

if necessary. The bearings are of the ball and socket type of ring-oiling, self-aligning construction, and are formed in the hemispherical cover casings which are attached to the magnet ring, one upon either side. The front casing is provided with closely fitting doors which afford ready access to the brushes and other portions of the motor.

The entire machine is thus rendered absolutely dust-proof, and practically water-proof. A removable cap is attached to the centre of the casing at the end of the shaft.

air ducts which connect with radial ducts between the laminae of the core. These convert the armature into a blower and create a strong draft through the windings. The windings for low voltage machines is of copper bars with easy bends. High voltage machines are wire wound with machine formed coils.

The commutator consists of drop forged segments of pure copper secured by cast-iron flanges of spider construction which allow free circulation of air. All machines are fitted with carbon brushes mounted on holders of the sliding socket type.

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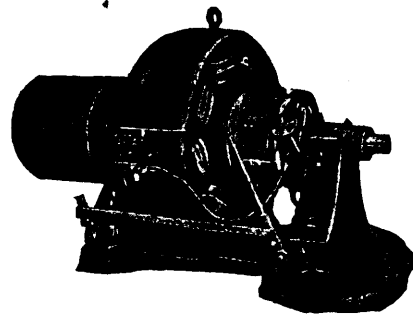
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