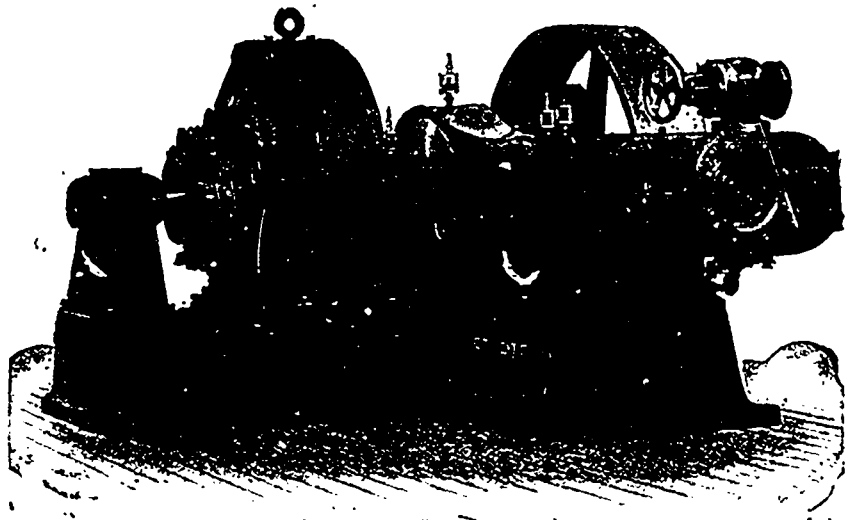


THE STURTEVANT GENERATING SET WITH HORIZONTAL ENGINE.

The center crank type of horizontal engine has become much more popular since the advent of the type of generating set of which it so readily forms a component part.

ditions. The engine and generator rest upon a common cast iron bed. The engine itself is of such design as to practically enclose the running parts. The oil guard and the removable side plates serve still further to render it of the enclosed type, and to this extent prevent the entrance of dust and the throwing of oil.



Generating Set with Horizontal Engine.

The form of set illustrated herewith is one of several types, designed and manufactured by the B. F. Sturtevant Co., of Boston, Mass.

The engine was primarily designed for dynamo driving, and in every particular, attention was given to those features necessary to successful operation under such con-

ditions. The valve, which is of the balanced piston type, is provided with snap rings, and operates in a removable bushing, thereby making it a simple matter to always keep it tight.

The regulator, which is capable of the closest possible regulation, operates through a range of zero to $\frac{1}{2}$ cut off. The engine cylinder

is thoroughly lagged. All moving parts are adjustable, and continuous sight feed oiling arrangements are provided throughout.

The armature is mounted upon an extension of the engine shaft, which is supported at its outer end by an independent pedestal with ring oiler. This generator is of the multipolar type, the field ring and cores being of cast steel, and the pole shoes of cast iron.

The proportioning of the magnetic field and armature is such as to insure absolutely sparkless operation under all changes of load from no load to 25% overload. The temperature rise after a full load run of ten hours is limited to 90 deg. F.

The armature is of the barrel wound type. A cast iron flange, bolted to the armature spider at each end of the core, forms a support as well as a cylindrical receptacle for the projecting ends of the coils. The flange extension also protects the windings from any oil that may be thrown from the windings.

The surface of the interior of this flange is perfectly smooth, offering no opportunity for the collection of oil or dust. Ventilation is effected by the use of specially constructed veins, forming ducts between the laminae of the core. These convert the armature into a blower, and create a strong draft through the windings.

The series winding of the field coils consists of flat copper ribbon, the shunt winding being of wire. Both windings are placed on the pole entirely independent of each other, and either may be readily removed. Both shunt and series windings have free circulation of air upon all sides.

The type of set here illustrated is built in sizes from 6x6 engine to 16x14 engine, with

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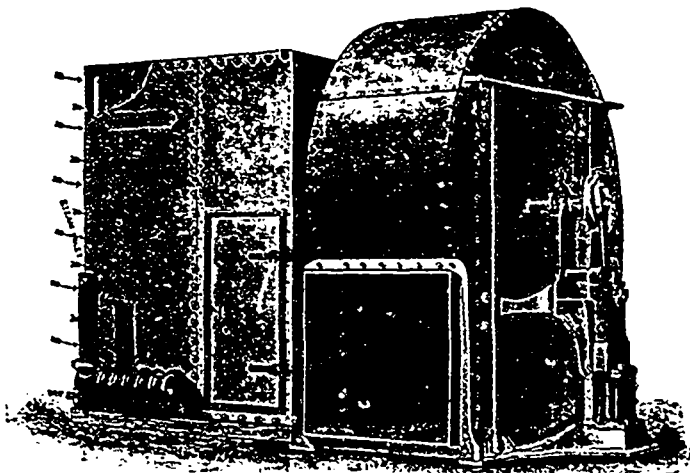
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