

STURTEVANT HIGH PRESSURE BLOWER

[A number of technical journals, both in Canada, U.S.A., and Europe, have published elaborate descriptions of the Sturtevant Company's new pressure blower, but, inasmuch as "The Canadian Engineer" goes into the hands of every engineer of distinction and manufacturer of importance in the Dominion, the men who design and buy; hence are more than mere passive readers of current technical literature, we have deemed it an opportune moment to set forth the special features of this blower, which embodies the latest resources of constructive engineering in this particular line.—Editor.]

The B. F. Sturtevant Company—founded in Boston 1857—were the pioneers on this continent in the designing and manufacture of fans and pressure blowers for foundries

nected to the steam engine, or geared to motor as shown in Fig. 5.

This high-pressure blower is made in two types: In the horizontal, the two shafts lie in a horizontal plane, while in the vertical, one shaft is above the other. The blower hereafter described, consists of a cast-iron shell or housing in which are two rotating members or "rotors." One of these, the impeller, revolves in the larger portion of the casing which in the vertical type is the lower. It does the

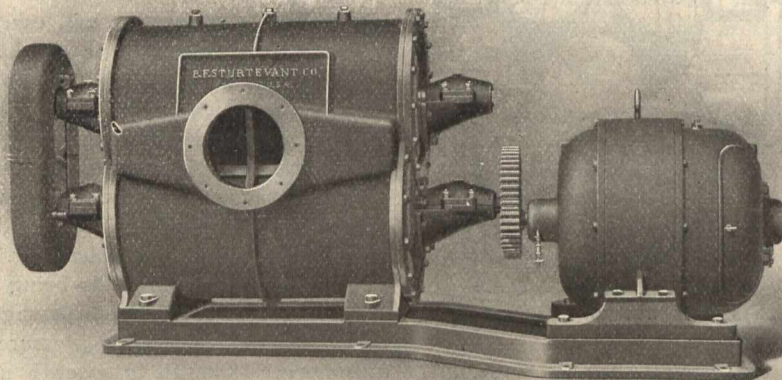


Fig. 5.—Blower Geared to Electric Motor.

and smelting works. And the high class work and thoroughness which has characterized their manufactures in this and other lines, along the years, has brought its reward, in the necessity for the laying down and erection of the fine new plant at Hyde Park, Mass., shown to advantage in Figs. 7 and 8.

real work of compression. The other rotor, known as the idler, does no work; it successively provides spaces or chambers of proper shape at the desired points in the revolution, so that the impeller blades may return to the suction side of the blower without allowing escape of compressed air.

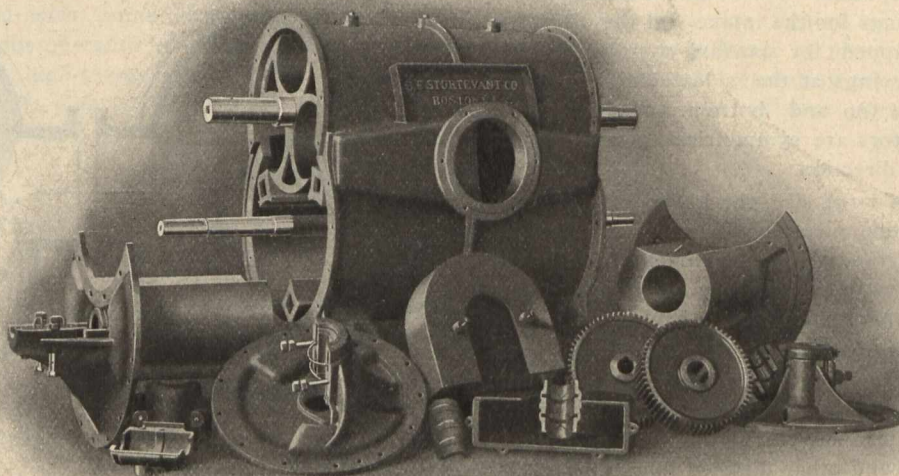


Fig. 6.—Parts of High Pressure Blower.

In a recent issue (February, 1906) we described and illustrated their high-speed automatic, vertical steam engine, for the driving of direct-connected generators, pressure blowers, etc. Through their courtesy we are now enabled to set forth the special features and advantages of the Sturtevant, high-pressure blower; which can be either direct con-

Ample clearance between the rotating members and the casing insures high mechanical efficiency by absolutely preventing internal friction due to contact of metal surfaces. Between the idler and the impeller the space is so great that only excessive variation in the accurate running of the gears will allow the two rotors to come in contact. This clearance