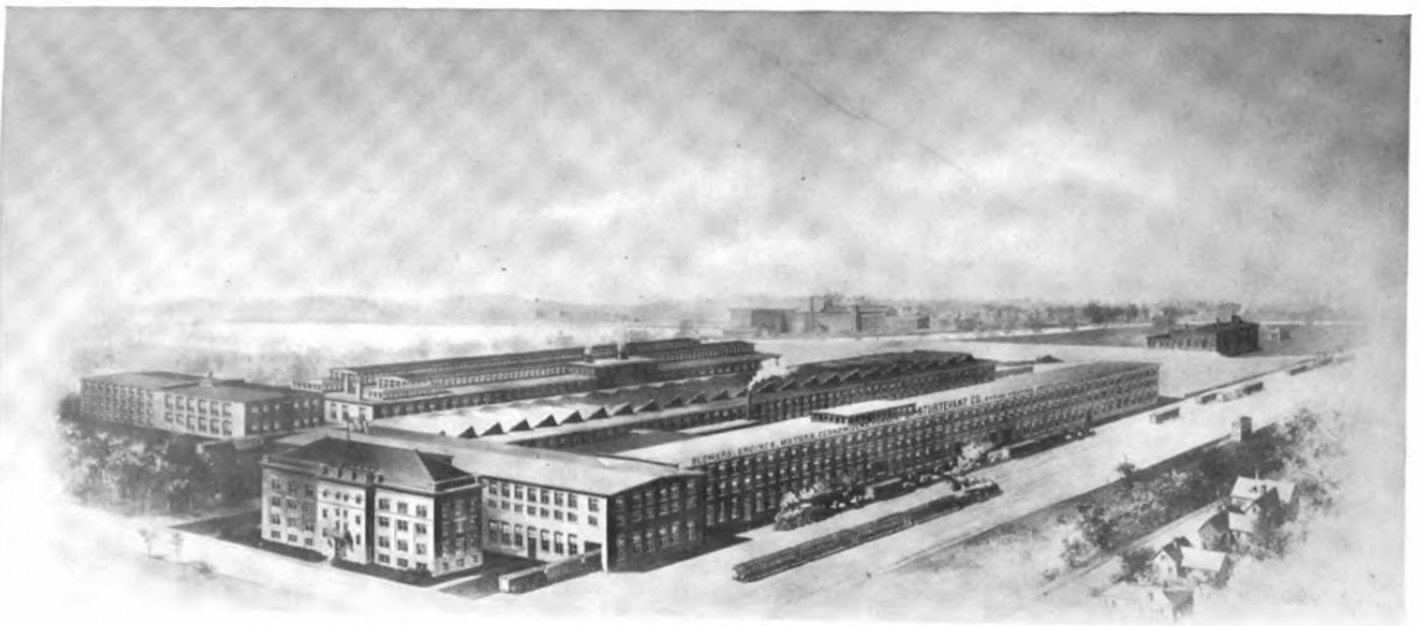


B F STURTEVANT COMPANY PART-1
Boston, Massachusetts
From ASHRAE Heat & Cold 1994

**Centrifugal Fans &
Blowers**



GENERAL OFFICE AND WORKS OF THE B. F. STURTEVANT COMPANY, BOSTON, MASS.
Largest Builders in the World of Fans, Fan Systems, and Allied Products.

B.F. Sturtevant—The Sturtevant Blower Company

Probably the most important name in ventilation during the last half of the century was Benjamin Franklin Sturtevant, who "started out as a shoemaker and cobbler. Being a very large man he was greatly bothered with the heat . . . so he rigged up, (in) about 1850, a stand with a disc (4 blade) fan run by a belt on to an eccentric pulley to a foot pedal which he worked with his foot."⁸³ In 1861, Sturtevant invented a pressure blower, "made with cast-iron split housing, wheel, and spiders made of bronze. The journals were cast-iron, half-boxes with a hardwood plug in each end."⁸⁴ In 1869, Sturtevant patented a blower for a hot air furnace (Figure 7-63) and in 1870, he patented a compound air heater and steam condenser (Figure 7-64).

The Sturtevant Blower Company of Boston was in full operation by 1872, manufacturing fan blowers for heating systems, industrial dryers, ventilation systems, and a variety of other uses (Figure 7-65). The Sturtevant Blower Company eventually changed its name to the B.F. Sturtevant Company, with offices in the United States and Europe. The company was then manufacturing steam fan drives and electric fan drives (Figure 7-66), as well as a large variety of fans ranging from small direct-drive electric fans to large-scale closed and open fan systems (Figures 7-67 and 7-68).

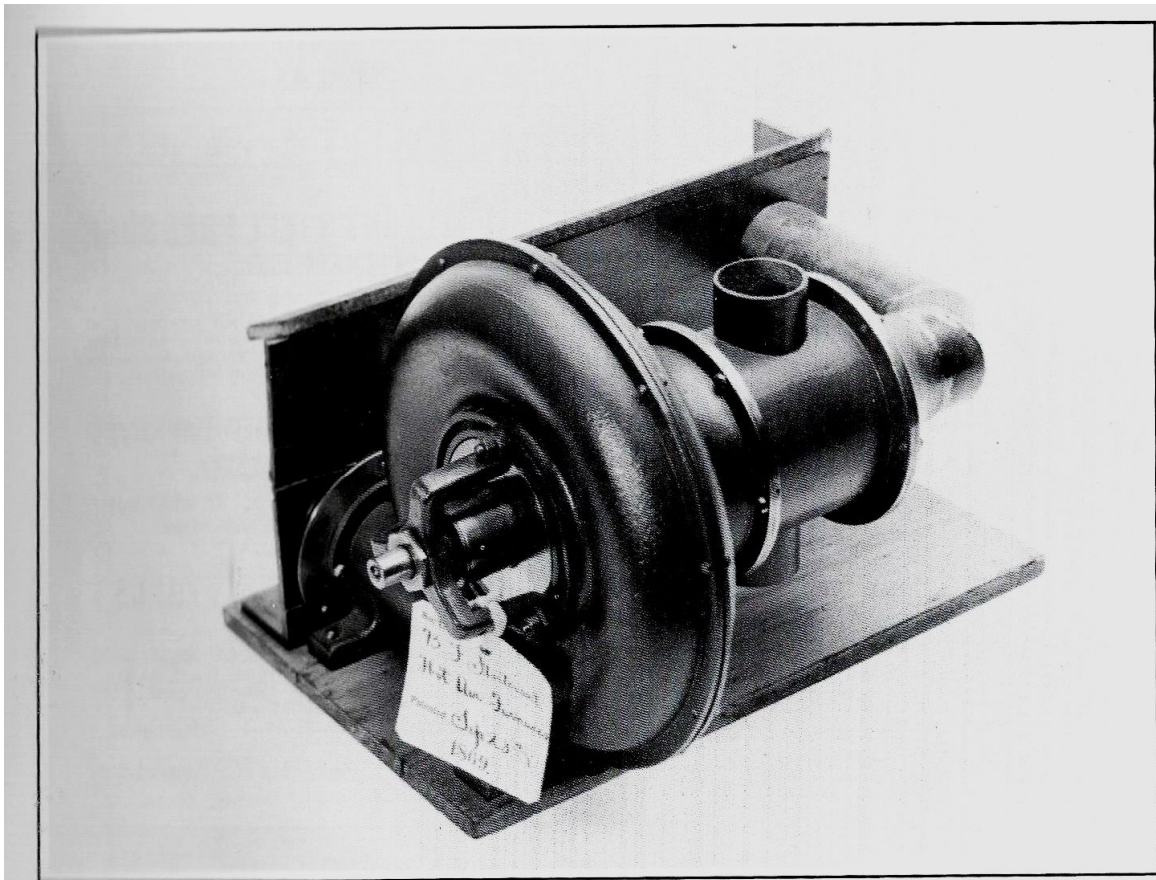


Figure 7-63 73 B.F. Sturtevant hot air furnace, 1869 (from Smithsonian Institution, Division of Engineering and Industry).

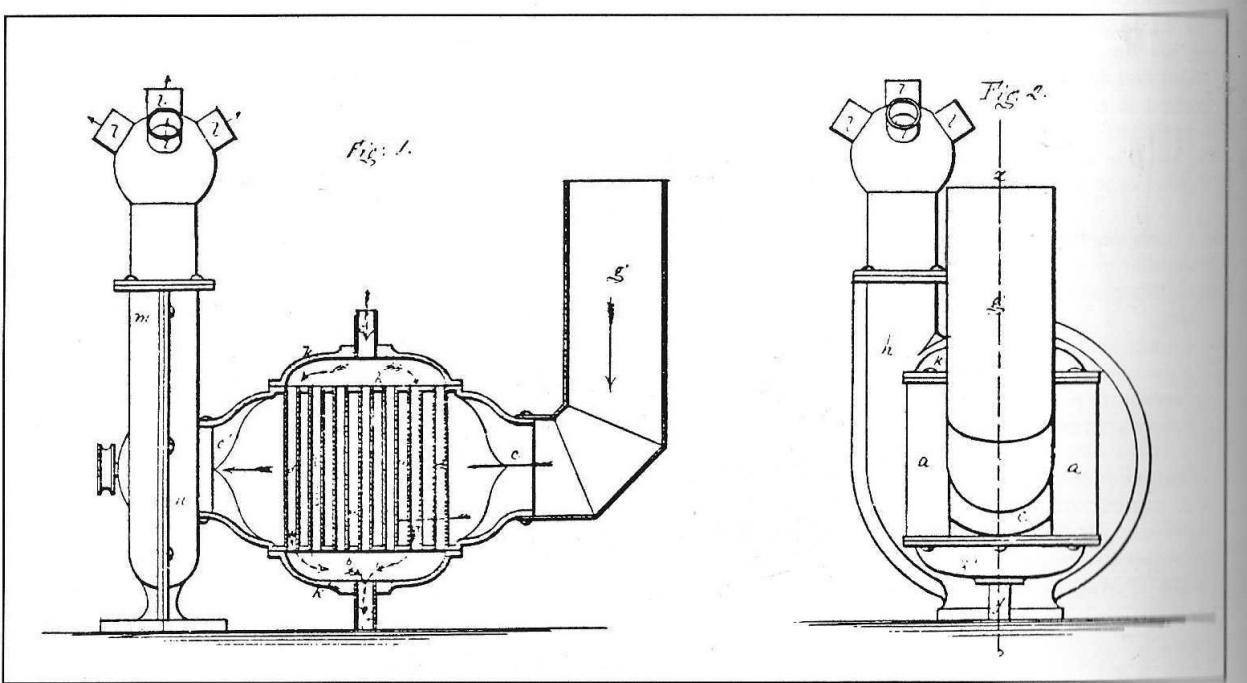
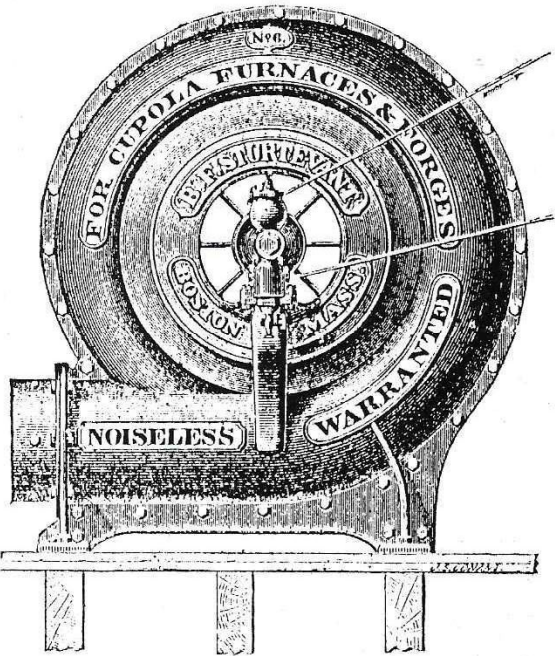


Figure 7-64 B.F. Sturtevant, compound air heater and steam condenser, patent drawing, February 22, 1870.



STURTEVANT STEEL PRESSURE BLOWER,
 For Cupola Furnaces and Forges.
The Blower which excels all others, producing maximum results with minimum power. Used in the largest establishments in the country, where the strongest blast is required.

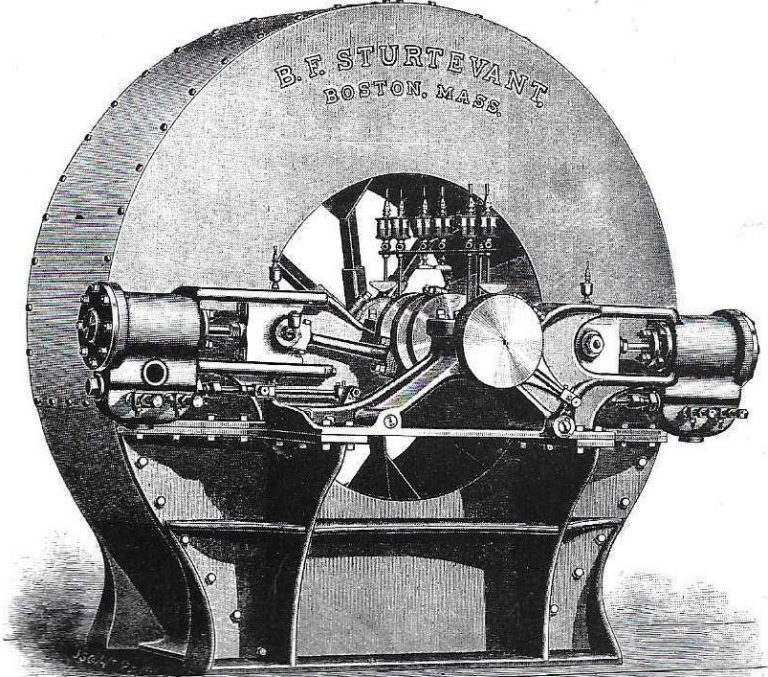
STURTEVANT PATENT IMPROVED FAN BLOWER,
 For Steam Boilers, Puddling and Heating Furnaces.

STURTEVANT PATENT EXHAUST FAN,
 For removing Shavings and Dust from Wood-working Machines, Dust from Sand and Emery Wheels, and for Ventilation.
 Send for Illustrated Catalogue.

B. F. STURTEVANT, Patentee and Sole Manufacturer,
 70 & 72 Sudbury St., Boston, Mass.

Figure 7-65 Advertisement, B.F. Sturtevant Blower Company, 1872.

B. F. STURTEVANT CO., Boston, Mass.



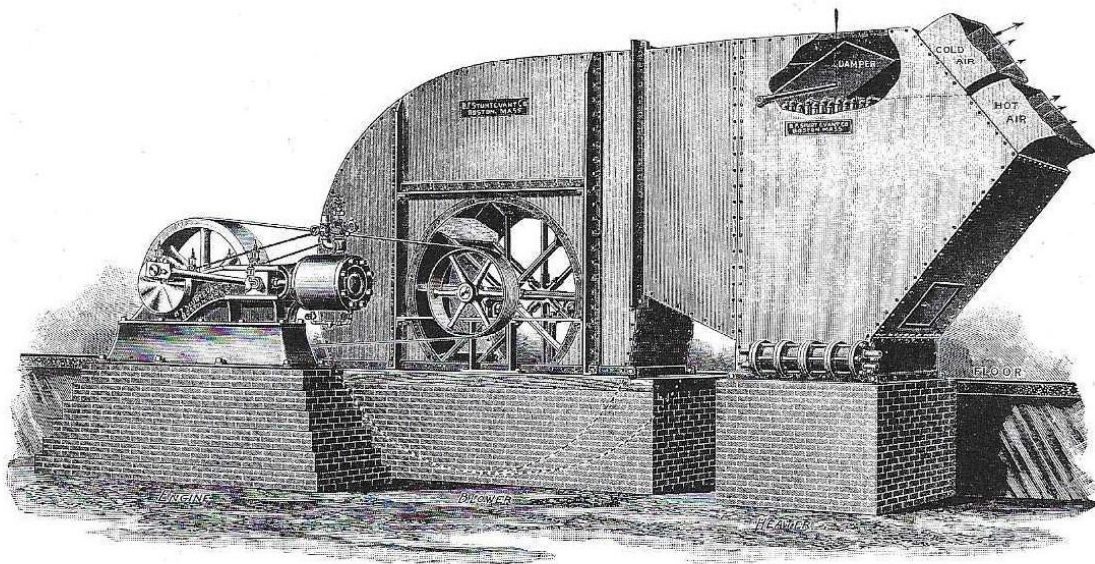
THE STURTEVANT SPECIAL STEAM FAN.
DOUBLE HORIZONTAL ENGINE.

34 Oliver St., BOSTON, MASS. : 21 West Nile St., GLASGOW, SCOTLAND.
 131 Liberty St., NEW YORK, N. Y. : 35 Wilhelmstrasse, BERLIN, GERMANY.
 135 North Third St., PHILADELPHIA, PA. : 75 Queen Victoria St., LONDON, E. C., ENG. : 2 Kungsholmstorg, STOCKHOLM, SWEDEN.

Figure 7-66 B.F. Sturtevant Co., early steam fan (from Heating and Ventilation, June 1895, p. xvii).

The Sturtevant System
OF HEATING AND VENTILATION

By a Forced Circulation of Warm Air
 is applicable to all classes of buildings



The Sturtevant System Is Superior to Direct Heating

BECAUSE

- The apparatus is centralized and under one man's control.
- There is no steam piping scattered around the building.
- Consequently no danger of freezing or of damage from leaky joints, valves, or aircocks.
- The heater is specially adapted to the use of exhaust steam.
- Heating can be accomplished with great rapidity.
- Building can be cooled and ventilated in summer.
- Humidity can be regulated.

BECAUSE

- Ample and positive ventilation is provided.
- Quantity and quality of air are under absolute control.
- Constant temperature can be maintained and air volume varied when "hot and cold system" is used.
- The heating surface is inclosed in a fireproof casing.
- The air-ducts are fireproof.
- There is no tendency to noise.
- Operation is independent of wind and weather.

Send for Catalogue No. 112, describing the system in detail

B. F. Sturtevant Company, Boston, Mass.

NEW YORK:
131 LIBERTY ST.

PHILADELPHIA:
135 No. THIRD ST.

CHICAGO:
16 So. CANAL ST.

LONDON:
75 QUEEN VICTORIA ST.

Figure 7-67 The Sturtevant system of heating and ventilation, from Engineering Review, September 1901, p. xv).

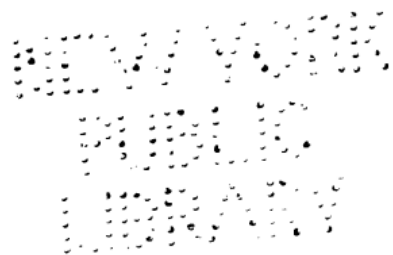


Figure 7-68 Benjamin Franklin Sturtevant, tired of the dust formed in his shoemaking equipment business, built a centrifugal exhaust fan by 1855 and began commercial manufacture of the fans in 1856. Samuel Davidson developed a curved-blade fan, the “Sirocco,” in 1900. James Inglis was responsible for the success of the American Blower Company (from Howden Sirocco Inc.).

STURTEVANT HIGH PRESSURE BLOWERS

CATALOGUE
NUMBER 140

STURTEVANT
ENGINEERING
SERIES 



B. F. STURTEVANT COMPANY

Designers and Builders of Heating, Ventilating, Drying, and Mechanical Draft
Apparatus; Fans, Blowers, and Exhausters; Steam Engines, Electric Motors and
Generating Sets; Fuel Economizers; Forges, Exhaust Heads, Steam Traps, etc.

GENERAL OFFICE AND WORKS, HYDE PARK, MASS.

Boston New York Philadelphia Chicago

STURTEVANT ENGINEERING COMPANY

London Glasgow Stockholm Berlin Paris

Sturtevant

(REG. U. S. PAT. OFF.)

PRODUCTS

GENERAL CATALOG

No. 195

STURTEVANT ENGINEERING SERIES

SEPTEMBER, 1914.

B. F. STURTEVANT COMPANY

GENERAL OFFICE AND WORKS, HYDE PARK, BOSTON, MASS.

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Atlanta	Boston	Buffalo	Chicago	Cincinnati	Cleveland
Hartford	Kansas City	Minneapolis	New York	Philadelphia	Washington
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San Francisco, Cal. THE B. F. STURTEVANT COMPANY
(Incorporated in California) Seattle, Wash.

B. F. STURTEVANT CO. OF CANADA, Limited
Galt, Ont. Winnipeg, Man. Montreal, P. Q. Vancouver, B. C.

STURTEVANT ENGINEERING COMPANY
London Paris Berlin Turin

...FOREWORD...

FOR more than forty years the Sturtevant Fan Blowers and Exhausters have enjoyed a world-wide reputation for quality and efficiency. Today they are to be found in thousands of industrial plants, in the mine, on the steamship, and in a host of public buildings; in fact wherever air movement is required.

The Disc or Propeller Fan operates most efficiently under resistances of less than one-half ounce per square inch. The Centrifugal Fan Blower is best suited for producing pressures of less than sixteen ounces, and especially for handling larger volumes at moderate pressures. The High-Pressure Blower herein described, which is designed for creating pressures up to ten pounds per square inch, completes the line of Sturtevant air- and gas-moving machinery. We are therefore in a position to advise impartially as to the best type of blower — whether fan or rotary — to accomplish a given result, and to furnish the driving mechanism best adapted to the particular installation.

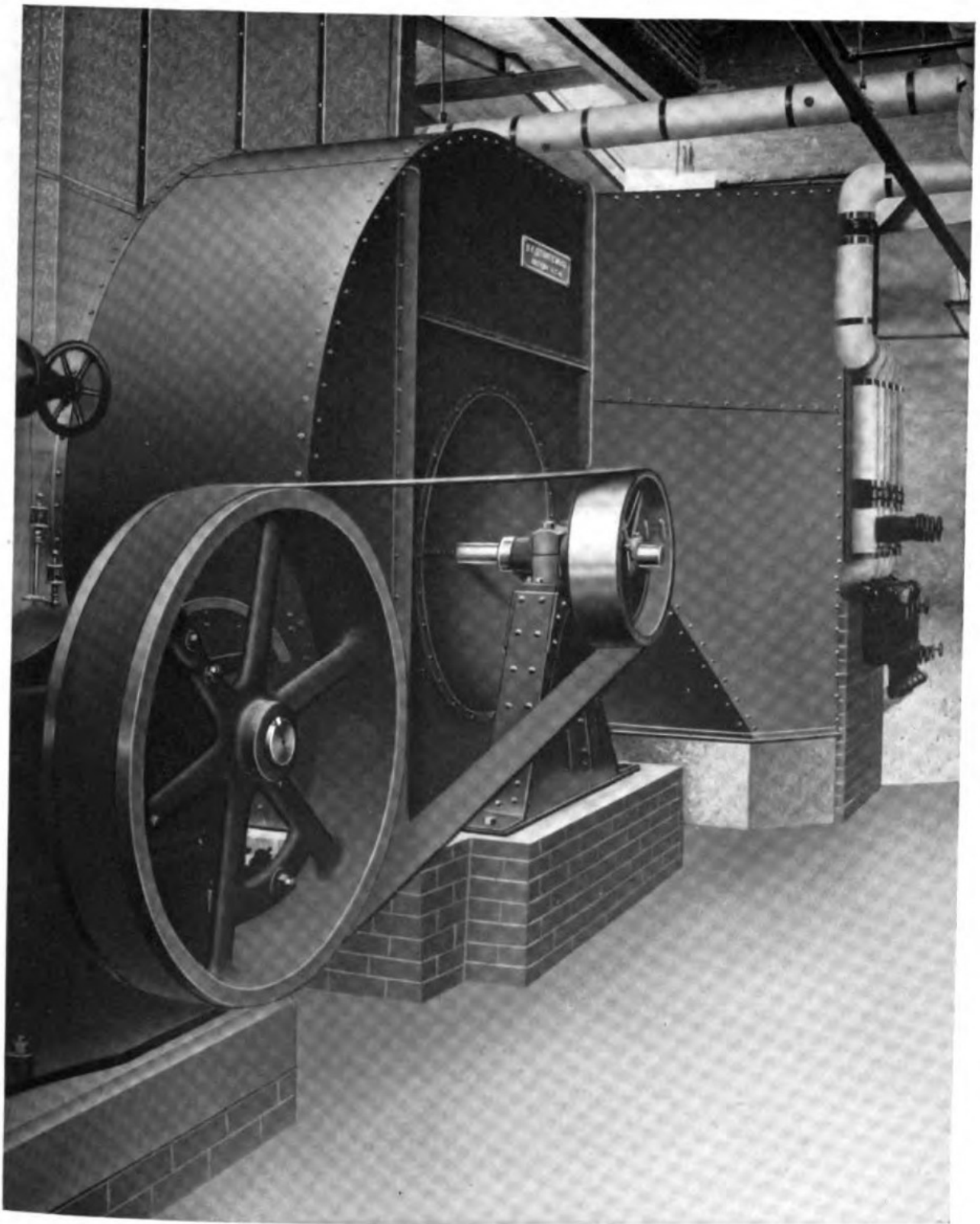
In first cost and limit of application this machine, which is of the so-called rotary type, stands between the relatively low-pressure volume fan on one hand and the piston-type blowing engine and the air compressor on the other. Embodying the patented features which have for many years given this blower a wide application throughout continental Europe, the Sturtevant type readily fulfils the conservative claims here presented. In every detail of design and manufacture the high-pressure blower receives the same attention that has made a name for the Sturtevant centrifugal blower. It is made in the same plant and to a great extent with the same tools that are employed in the manufacture of Sturtevant engines, motors, and generators.

This fact is suggestive of the harmony of design and workmanship existing between the blower and the motor, — steam or electric, — which is provided for driving it. The direct-connected sets, engine or motor driven, are each built as a unit. Responsibility for the quality and adaptability of the entire outfit is ours; it is not divided among the different manufacturers of the component parts.

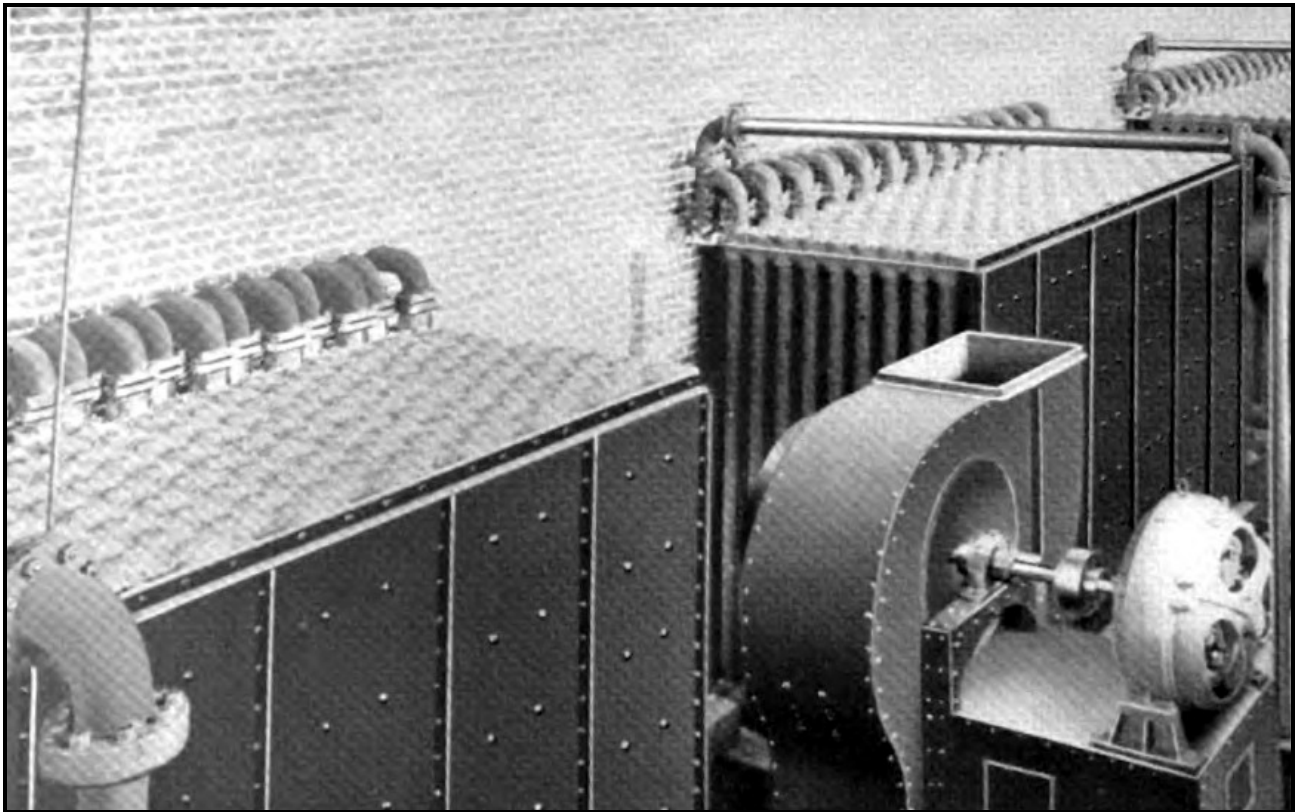
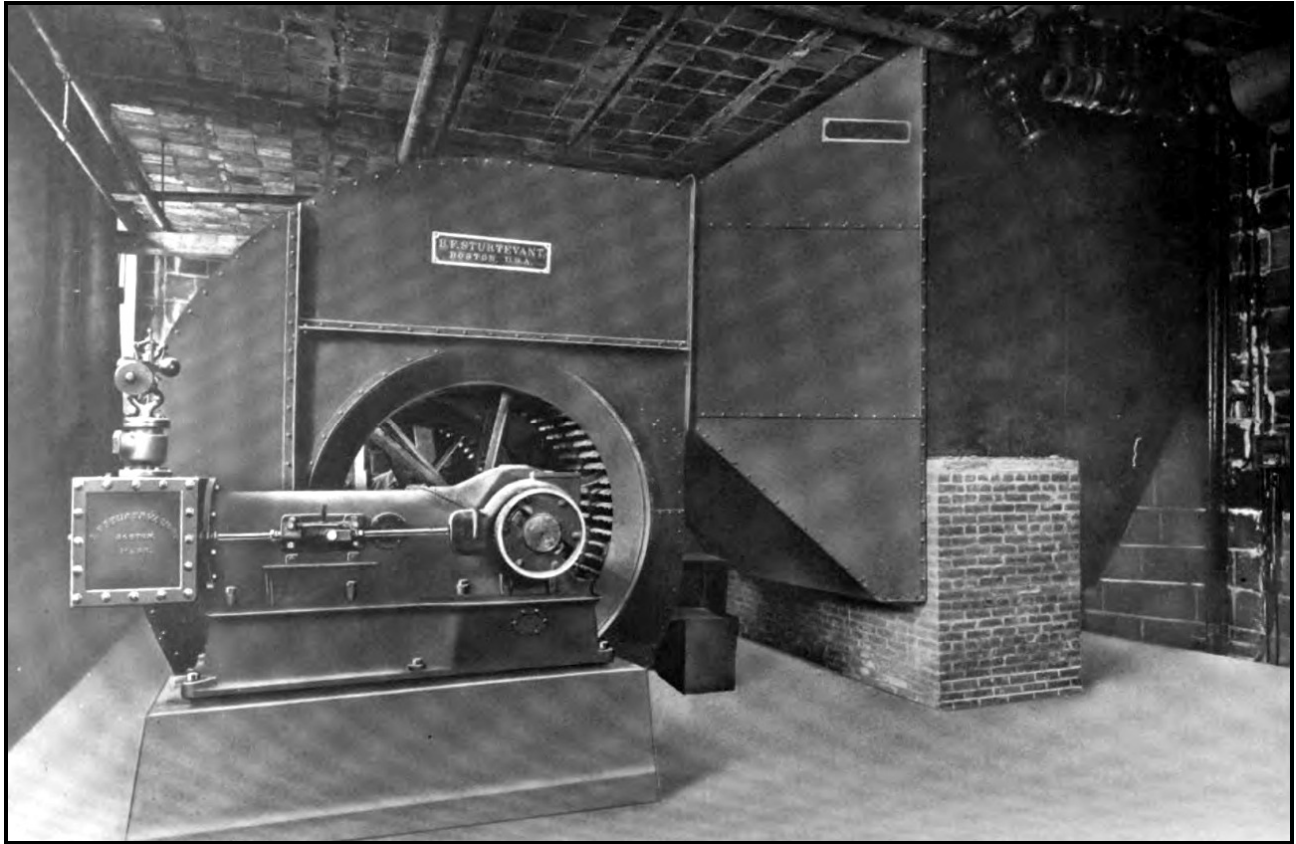
B. F. STURTEVANT CO.

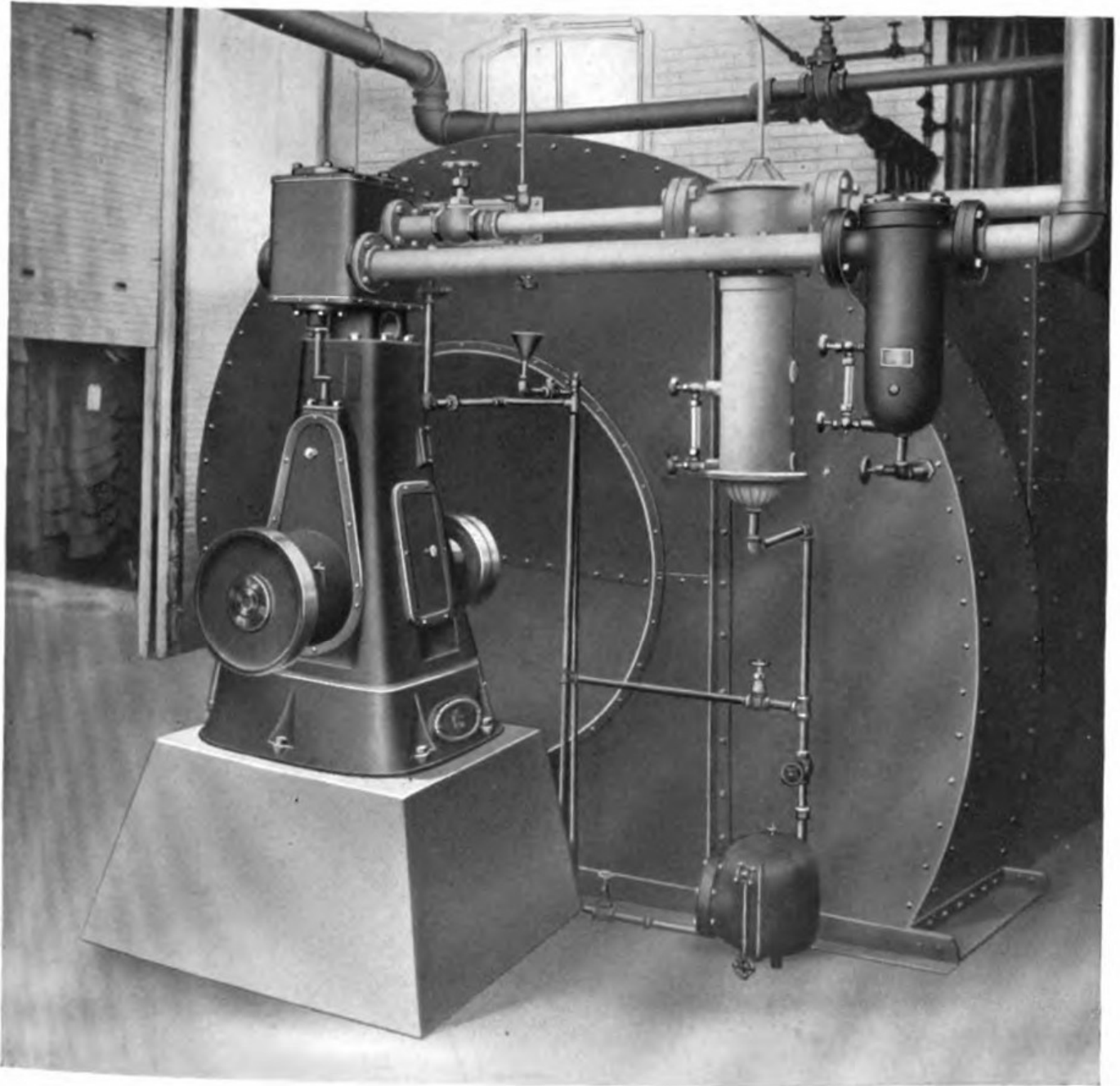


No. 14 MULTIVANE FAN
Double Width, Double Inlet, Right Hand, Top Horizontal Discharge
Driven by Morse Silent Chain Drive and Induction Motor
Heating and Ventilating the Factory of Brown-Lipe-Chapin Company, Syracuse, N. Y.



No. 13 MULTIVANE FAN. Left Hand, Top Horizontal Discharge
One of two installed in the Western High School, Washington, D. C., for Heating and Ventilating





No. 13 MULTIVANE FAN

Single Inlet, Single Width, $\frac{7}{8}$ Housing, Right Hand, Bottom Horizontal Discharge

Direct connected 7 x 7 VS-7 Engine

Drying Hats at the Plant of the Lee-McLachlan Company, Danbury, Conn.