

# Industry

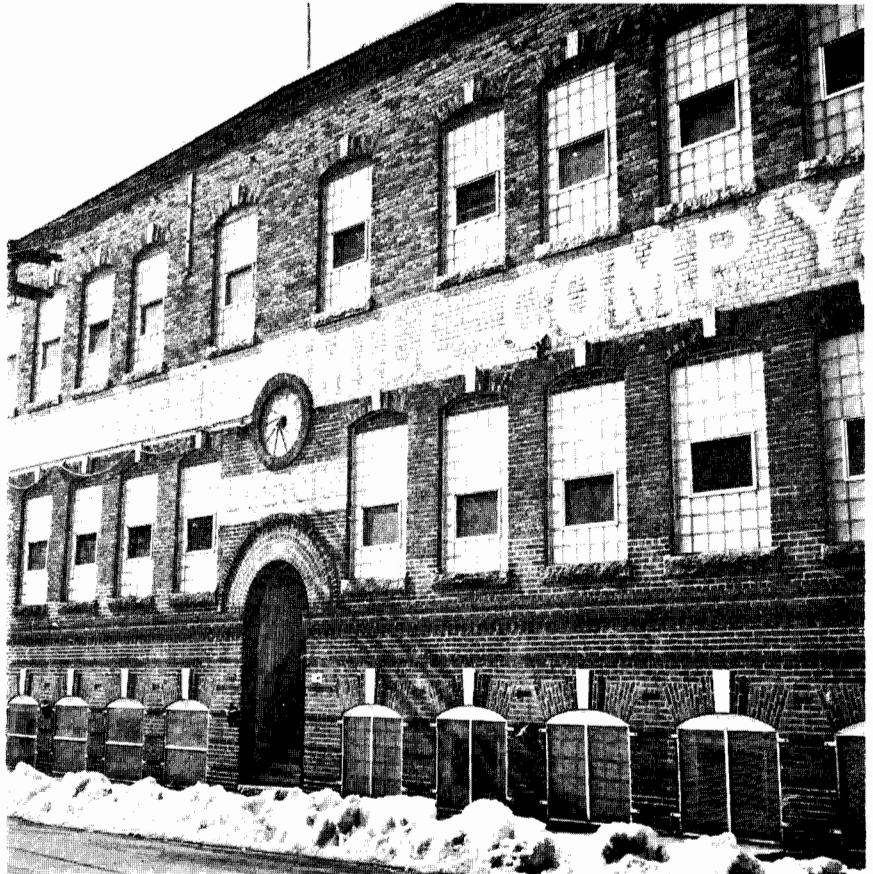
May 1980

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**The mills of Sturtevant . . .**

**BILL COWAN**



## The mills of Sturtevant . . .

**T**he first five automobiles ever equipped with automatic transmissions. Carburetors for motorcycles. Two water-going vessels, each 35 feet long, built to operate in water only 11 inches deep.

These are a few of the products once made by the Sturtevant Mill Company — still located on Clayton Street — Dorchester, during its 97-year history.

“I sometimes think our predecessors had a lot more fun in business than we do,” said William (Bill) S. English, with a smile. Chairman of the board and treasurer, he is the fourth generation of the Sturtevant family to head the company established by Thomas L. Sturtevant in 1883.

“Yes, in 1907 this company actually made the first five cars equipped with transmissions that incorporated

the basic principles of modern automatics,” Bill English continued. “The carburetor was installed in the Indian motorcycles popular in their day. The boats, which had special sluiceways built into the hulls to feed water to the propellers, were built in 1947 for use in Siam.

“However, I don’t think you’ll find many companies straying so widely from their main lines of business today. Not even privately-owned companies.”

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**Sturtevant Mill** Company’s primary business has always been designing and building machinery that crunches, grinds, pulverizes, separates and blends dry materials. The materials vary from limestone to flour and include bauxite, carborundum, cement, chalk, coal, coke, graphite,

iron ore, phosphate rock, slag, slate and sulfur.

The company was established to make emery mills to grind materials used in manufacturing fertilizers. Now, it is considered the leader in its field by companies in the chemical and mineral processing industries. Annual sales exceed \$5 million and the company is still privately held.

Its principal product is the Sturtevant Air Separator which is used mainly in cement manufacturing to separate fine particles from coarse and to classify them according to size.

The air separator’s fans create air currents which suck up the fine particles and separate them from the larger ones. As a part of limestone pulverizing systems, it separates those particles according to the stan-

dard of fines for the finished product. Larger particles must be further pulverized.

The sizes of Sturtevant equipment range from 20 inch-diameter Whirlwind Centrifugal Separators to 26 foot-diameter separators that stand 40 feet high. Capabilities range upward to handling inputs of 2500 tons per hour. The standard separators have 40 to 400 mesh and the Superfine air separators have 325 mesh to a theoretical 1250 mesh or a range of 44 to 10 microns. By way of comparison, household window screens have a mesh of 16 — 16 openings to each linear inch.

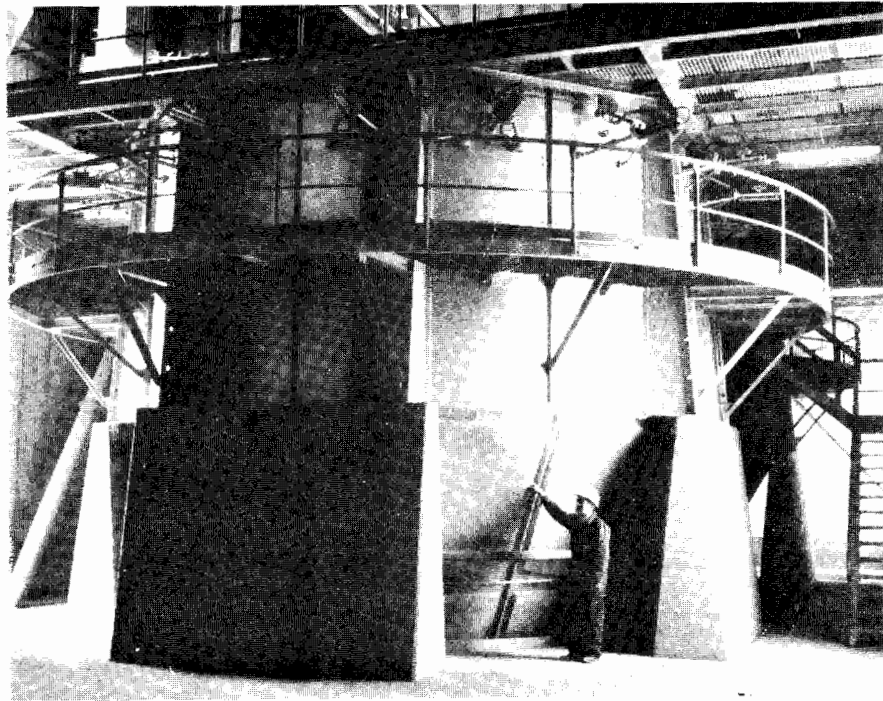
Because of these capabilities, Sturtevant machinery is being used in an increasingly wide range of applications. In some installations, changes in fines in product output are automatically controlled by a computer. Electronic feedback and a master control panel register the changes in product size as monitored by either acoustics or a particle-size sampler.

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**Sturtevant** air classifiers are being used to clean dust from coal in the Dotiki mine in Kentucky. Located beside the mine, the classifier is part of an experimental facility that could become increasingly significant in balancing energy and environmental considerations. In other coal applications, Sturtevant crusher/samplers are used to determine the Btu value of the coal purchased by electric utilities and large industrial users.

Still other Sturtevant products are being used in research and development laboratories to determine the characteristics and properties of materials, obtain particles for toxicological studies and inhalation tests, and to perform other analyses.

Sturtevant machinery has become increasingly sophisticated while retaining features such as the "Open Door Construction" that enables users to inspect the interiors (and also clean, adjust and service components) of jaw crushers, crushing rolls, hammermills, sample grinders, rotary crushers, air separators and the Micronizers.



**Sturtevant 20-foot-diameter air separator, with automatic fineness control provided by electronic feedback and computer system, was designed and built for O'Bourg Cement facility in O'Bourg, Belgium.**

The latter, special types of a grinding mill, use compressed air, gas or steam to project particles so that they actually grind against each other. The result is exceptionally fine powders used in manufacturing pigments for paints, carbon black, pharmaceuticals and other products.

Sturtevant Mill Company also designs and builds special-purpose systems for flour milling facilities.

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**The company continues** to produce parts for equipment it built and sold years ago. Orders for replacement parts for machinery made 30 or 40 years ago are not uncommon. And orders for parts for mills built 75 or 80 years ago are still received and filled.

"We fill the order if we possibly can," explains Bill English. "We have a reputation — in fact, a tradition — to uphold and maintain."

The company has an excellent rep-

utation that is due to a number of men who have dedicated themselves to the company's principal business. Among them are Bill English who joined the company in 1958. John E. Burke, president and general manager, began working for the company in 1941 and Richard Arnold, vice president of production, in 1940. Frederick M. Currier, chief engineer, joined Sturtevant in 1946 and Frank Sereno, sales manager, in 1955.

They continue a tradition begun by the founder, Thomas L. Sturtevant, and maintained by his nephew Thomas J. Sturtevant who invented the automatic transmission; Laurence H. Sturtevant; Joseph H. Sturtevant; and Clayton F. English, father of William Sturtevant English, present chairman of the board.

For the future, Bill English sees the company growing steadily in several directions. It will certainly increase its exports. For many years, it has marketed its machinery especially to

the cement industries in Europe, the Middle East and Africa through a Belgian licensee, N.N. Zoubov Engineers, and Sturtevant Mill Company-Europe. It also markets its machinery in Australia, Canada and Mexico through licensees.

The Sturtevant Processing Division located near the original plant on Clayton Street is also expanding its services. A sample testing laboratory, it enables researchers to try new schemes of pulverizing, classification and blending of finely divided powders. Limited commercial size reduction and classification of materials are also performed by the Processing Division which is headed by Walter M. Glaeser, P.E., director of research and development, and Henry Lisowski, laboratory manager.

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**In 1973**, the company purchased a foundry in North Attleboro to make gray iron and Ni-Hard castings for its mineral crushing and processing equipment. Equipped with modern

electric furnaces, the foundry can cast parts ranging in weight from 100 to 4000 pounds.

"We established the foundry primarily to serve Sturtevant needs for quality castings, service and delivery," says Bill English. "However, we are doing more and more work for other companies in the area who require quality castings. Approximately 50 percent of capacity is available for outside work."

The foundry, which meets environmental regulations, is operated by a staff of 21 employees headed by John Burke, Jr., general manager; Ralph H. Gowen, metallurgist; and Martin (Wally) Barboza, the foreman.

As previously indicated, Sturtevant's reputation does not rest on developments of other years. In 1978, the company ranked first as a manufacturer of disintegration equipment in the biannual recognition and awareness surveys conducted by Chemical Engineering magazine. Prior to that, the company usually ranked second or third.

Bill English feels that advertising has played an important role in keeping the company's name in front of potential purchasers of Sturtevant equipment and users of its services. Represented by four sales engineers in the U.S. and manufacturers representatives, it is impossible for the company to call on all the potential purchasers and users of its machinery. Therefore, the company advertises in approximately 20 key publications to remind the chemical processing industries of its systems and services. English personally reviews all the ads and, in 1978, the company received a first place Hatch Award for advertising excellence.

In three years, Sturtevant Mill Company will celebrate its 100th anniversary in the same location where it has stood for so many years. And, as it begins its second century, soundly based and expanding within its principal lines of business, the future looks increasingly promising for precise, steady growth — in keeping with mills that grind exceedingly fine. ■

*Reprinted from the May 1980 issue of Industry, the official monthly magazine of Associated Industries of Massachusetts*