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History, Products, and Plants and Equipment of Morgan Construction Company

The Morgan Construction Company

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Nearly fifty years ago, the late Charles Hill Morgan, then General Superintendent of Washburn & Moen Manufacturing Co., began to form plans for the establishment of an industry new to Worcester. Gradually, a small group of able men was brought together and their talent was focused upon the improvement and development of machinery for the hot rolling of certain steel products and the cold drawing of wire.

In 1891, forty-three years ago, Morgan Construction Company was incorporated, housed in a few rooms and employing a small force of engineers and machinists. From this modest beginning the operations of the company have expanded until now several factory plants are required and the normal working force exceeds eight hundred, all of this due to the constant, untiring and cooperative effort of eminent engineers, competent workmen and careful administration, to present a product far superior to any other.

This product may be briefly summarized as follows:

**ROLLING MILLS**

Rolling Mills for the making of billets, sheet bar, merchant bar, hoops, strips and wire rods, one hundred and seventy in number, have been designed and built, not only for America but for several European countries and such remote lands as India and Australia. Morgan Mills are accepted as a standard, wherever steel is rolled. Millions of tons of steel are rolled on Morgan Mills, every year.

**SPECIAL MACHINERY**

The building and designing of rolling mill machinery involves the development of special machinery. No two jobs are identical. The engineering staff in normal times consists of more than one hundred draftsmen, mechanical and practical engineers. The machinery of these designs demands from skilled mechanics a high standard of workmanship. This is obtained through a group of well trained workmen who operate our machine tool equipment consisting of:

- 24 Lathes taking pieces up to 18'
- 13 Turret Lathes
- 12 Vertical Boring Mills, the largest taking pieces up to 14' diameter
- 4 Horizontal Boring Mills
- 6 Drill Presses
- 8 Radial Drills, the largest having 10' stroke
- 11 Planers
- 9 Milling Machines, the largest with 60" x 48" x 16' table
- 2 Cylindrical Grinders
- 2 Internal Grinders
- 5 Gear Hobbers, the largest taking blanks 30" high by 8' in diameter
- 2 Spiral Bevel Gear Planers capable of cutting gears up to 15' in diameter

This machinery, coupled with the usual complement of miscellaneous machine tools, make for a very complete machine shop.

In normal times the shops will produce and ship from one million to one and one-quarter million pounds of machinery per month.

**GAS PRODUCERS**

Many years of patient study and experiment have resulted in the development of a Producer Gas Machine, incorporating among other features automatic feeding of coal, continuous leveling of fuel bed and mechanical discharge of ash, all contributing to the making of better gas and the elimination of hard manual labor. Distributed among many countries of the world are over eight hundred "Morgan Producers."

**WIRE MILL MACHINERY**

Wire has been made in Worcester for a hundred years and naturally machinery for its manufacture has received much study here, to the end that much has been accomplished toward safety of operation, reduction of heavy labor and decreased operating costs. Morgan Wire Machinery is to be found in practically every country where wire is made.
STEEL MELTING FURNACE CONTROLS

Furnace controls formerly obtained by natural drafts are being replaced by a new system of mechanical regulation which promises to revolutionize the practice, reducing as it does the fuel required and the time required to produce "Heats."

The plants of the company are as follows:

LINCOLN SQUARE PLANT

The Lincoln Sq. plant occupies about 139,000 sq. feet of the area bounded by Lincoln Sq., Lincoln, Linwood, Fountain and Belmont Streets. The engineering department of 100 men, administration offices employing 100 people, the pattern shop with 25 pattern makers, a machine shop employing 350, a hospital for physical examinations and treatments of minor injuries, and a blue print department making about one quarter of a million blue prints per year.

CRESCENT STREET PLANT

The Crescent St. plant is located about one-half mile north of Lincoln Square and occupies ten acres, bordering on Crescent St., Green Hill Parkway and Paine St. This plant is served by the Boston & Maine Railroad who operate 2500 feet of sidetracks owned by the Morgan Construction Company. The office building houses a hospital, plant telephone central, laboratory and shop drafting room. The erecting and structural shops, having a floor space area of 33,000 square feet were built in 1923-24 and incorporate all the most recent features of building design, including excellent light for both day and night work. The heavy machine shop, which includes a large gear department with the two largest spiral bevel gear planers in the world, is manned by 115.

UNION AND SUMMER STREET PLANT

The plant located at 19 Union St. and 21 Summer St. has a floor area of 65,000 feet, entirely devoted to the storage of patterns.