THE BLACK-CLAWSON COMPANY

Manufacturers of Paper Mill Machinery

Among Hamilton's great industries, none is better or more widely known than the Black-Clawson Company. Wherever machinery is manufactured and wherever machinery is used, the name of Black-Clawson is known and known as a name of a company whose products have become world famous.

Not only in every state in this Union but in every country of any importance abroad is this company known as the leading manufacturers of paper making machinery. In Hamilton, at the Champion Coated Paper Company's great plant, ten of the Black-Clawson largest machines are in use. Six of these are in a single room and the other four in a nearby section of the plant. Nowhere else in the world of machinery could better results be obtained than by buying at home.

A Trip Through the BLACK-CLAWSON Plant.

A trip through the large shops of the Black-Clawson company is an education in itself, and no one can fully realize the enormity of the plant until he has made this trip.

The plant is situated at Second and Vine streets and covers two city blocks. Many additions to the original plant were made in 1904, and the present factory may be said to date from this year. On the first floor are located the general offices, handsomely and tastefully furnished. The directors' room is especially pleasing. A large Mosler safe stands as mute evidence of the faith of the company in home products.

In the drafting department, located above the general offices, the intricate work of making the plans for the various machines is done. The length of the proposed machine may reach up to three hundred feet, so it may readily be seen that the plans vary. Drawings of each piece of the machine are made and from these the blue prints are taken, and furnish the guide for the workmen in the foundry and machine shops to correctly produce the perfectly modeled machine.

The company has adopted a plan, not usually followed, of filing the working blue prints of all machines built by it, along with the original drawings and tracings. They are all carefully indexed and numbered, so that any of them may be readily examined. By this method all of the notations on the working blue prints can be utilized and any part needed can be reproduced without re-drafting.

The facilities for receiving the raw material and shipping the finished products are of the best. Tracks enter the west end of the great shop and the heavy machines, handled by huge cranes are loaded directly on the cars. The foundry was enlarged also, at the time of remodeling in 1904 and the machine and erecting shops now are 360 feet in length by 150 feet in width. Electric traveling cranes handle the heavy work in the foundry, machine and erecting shops.

The plant is equipped with the latest in power houses. The

F. C. TROWBRIDGE
President and General Manager.

HERMAN L. KUTTER
Secretary, Engineer and General Sales Manager.

electricity generated here furnishes power to turn the machinery in the machine shop and provides light and heat for the entire plant. A high speed Corliss engine, making 120 revolutions a minute is used in this plant.

The pattern department with its masterful system of storage and the large pattern shop are among the most complete of the kind in the country.

The Black-Clawson company is the only company making the F. X. Black patent seamless dryers. They are hollow cylinders, and, being filled with steam, are used to remove the moisture from paper in the process of making. They can be used in drying other substances, also. The largest number of dryers ever used in a single paper machine is 100.

While not much of the work is of a light nature, at the same time it is very delicate, for the big machines must be correct in every detail. The least variation or irregularity may cause the web of paper to snap and cause untold trouble.

Besides the regular line of paper mill machinery, the concern manufactures paper cutters from the lightest to the heaviest patterns, adapted to the finest tissue paper or to the heaviest card board. This company was the first to use chilled iron rolls in the ink mills which it manufactures in large numbers. Among the other products are lard coolers, roll evaporaters, centrifugal fan pumps, improved Jordon engines, stuff pumps, various sorts of cylinder evaporating and drying machines, and in fact everything to meet the requirements of an up-to-date pulp or paper mill.

The Early Day of This Now Great Plant.

The first roll-grinding machine operated in the city of Hamilton was installed in the Peter Black & Sons' shop in 1874. Young Frank Black had mastered the running of these machines while employed with the celebrated J. Morton Poole, in Wilmington, Delaware, and he was given the duty of operating this new machine. In May, 1874, the first roll grinding was done in the middle west, and the first roll was for Beckett, Laurie & Company, the well known local paper makers. Linus P. Clawson had been reared on a farm and knew little of manufacturing until he came to Hamilton about 1875, and became one of the firm of Black & Clawson, which consisted of Peter Black, his son, Frank, and Mr. Clawson. They devoted themselves to roll grinding. This was a good business, but after all, it was simply the operation of a single machine. Mr. Clawson made up his mind that the firm should enlarge its line of manufacturing and eventually become builders of paper making machines. The first piece of paper mill construction done by Black & Clawson was in 1878. Mr. Clawson went to work to have designs made for super-dryers to improve the Rockdale mill He got the order, the job was done, and it was well done, and was the first piece of paper mill construction done by the Black & Clawson Company.

In 1881 the old shop proved entirely inadequate to the magnificent business which had been building up; so a new and larger shop was built. In 1883 the concern was incorporated, with Frank X. Black as president and L. P. Clawson as secretary and treasurer.

Both Mr. Black and Mr. Clawson have long since ceased connection with the concern. Mr. Black died in July 1898, and Mr. Clawson sold out his interest to others.

The present officers of the company are, F. C. Trowbridge, president, and general manager, and H. L. Kutter, secretary, engineer and sales manager; A. Clifford Shinkle of Cincinnati, 1st vice-president; O. M. Bake, 2nd vice-president and H. R. Dilg, treasurer.

Black-Clawson is Ever In the Lead.

The reason that the Black-Clawson Company is so well known and enjoys such an enviable reputation is that it is always in the lead. It has time and again taken contracts for goods to be turned out in three months, when other concerns of a similar nature have refused to promise them inside of six months. The reputation of the firm has been added to by the patent evaporating and drying machines which are made for the big packing houses. The paper and pulp machines of this company are in use the world over. Their grinding machines for making printers' ink are sold wherever ink is ground. The big paper machines are very costly, varying in price according to the size of the machine. It is manifestly impossible to keep the machines in stock as one mill may want a sixty-two inch size while the next day another may want a one hundred and thirty inch size. Only the standard parts and fittings are kept on hand ready for immediate shipment in case of an emergency.

The cost of shipping these big, bulky machines is naturally enormous. One machine, built not long ago, weighed over 1,000,000 pounds. Some of the machines are so large that it requires over thirty freight cars to handle them.

The company has such a reputation that many orders come to them without solicitation, but they are ever on the alert and have representatives in every field. In the past few years machines of different kinds have been sent to Australia, Japan, Finland, Canada, Russia, Norway, Scotland, England, France, Belgium and South America. Before a machine is shipped it is set up in the shop, to be absolutely certain that every detail is correct.

It is this attention to detail and carefulness in every part of the construction that has given this firm a reputation which is not excelled by any other firm, no matter where it may be located.