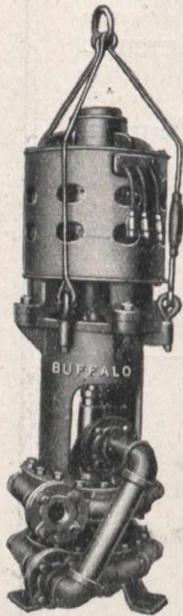


AMONG THE MANUFACTURERS

A department for the benefit of all readers to contain news from the manufacturer and inventor to the profession.

UNUSUAL CENTRIFUGAL PUMP.

The accompanying cut shows a 2½-inch compound vertical shaft sinking pump, driven by a 20 horse-power motor, designed to handle from 120 to 180 G.P.M. against varying heads up to 225 feet. The pump is equipped with bronze runners each made in two pieces to facilitate furnishing the interior waterways exactly to template, brass glands, forged steel shaft and cast iron casings and side plates. Also note that the action of the thrust is balanced for the pump, suction inlet is at the bottom of the lower or first stage, while the inlet for the second stage from the first is above at the top of the upper casing. The thrust bearing on the motor was built sufficiently heavy to bear the weight not only of the motor rotar but also of the moving parts of the pump, the shafts being connected only by flange coupling each half being held securely to shaft by taper pin.



When in place in the mine shaft the motor is protected from stones dropping down by a circular conical baffle or deflector made of ¼-inch boiler plate and slung below the ring on the three rods supporting the pump from the tackle. A similar plate is attached to the bottom of the machine to guide it down the shaft to prevent catching on cross timbers. Water is taken through about ten feet of Marlin wound heavy rubber hose connecting with the suction inlet and protected at the lower end by an ample strainer.

The pump construction as shown in the cut weighs without motor 650 pounds, with motor 1,500 pounds, and was recently shipped to a customer abroad by the Buffalo Steam Pump Company, of Buffalo, N.Y.

ALLEN RIVETERS IN DEMAND.

The improvement in business generally noticable is reflected in recent advices from the firm of John F. Allen, 370-372 Gerard Avenue, New York City, builders of the well-known "Allen" Riveting Machines.

They state: "Our May output was the largest since October, 1907. June opened up with a satisfactory amount of orders on hand and development of orders to date is very satisfactory, promising to close out the month with an increased output over last month.

"During the depression we took occasion to devote closer study to improving our machines, the result being that we have succeeded in developing greater tonnage on the dies and with a much smoother movement, eliminating the jar noticeable at times in pneumatic riveters and which some users have found objectionable."

IMPORTANT STEAM WHISTLE INVENTION.

Mr. Willett Bruce, the well-known superintendent engineer of the White Star Line, has invented an electric and automatic controlled steam whistle. Its efficacy in the qualities, which are claimed for it, have been thoroughly substantiated on board White Star liners, and the control and manufacture of the patent has been taken over by Mr. T. Downie, the well-known engineer of 5, Castle Street, Liverpool.

The great importance and desirability of having an efficient and effective equipment so as to ensure clear, dis-

tinct, and regular timed whistle blast signals in thick or foggy weather, as encountered by every class of steamer, is apparent. Yet comparatively little has been done in the past to accomplish such improvements as are clearly necessary. It is quite an every-day occurrence on the river for some passing steamer to fail in giving a blast, and for water and steam instead of sound to come out from the whistle orifice. Such a defect has more than once been the subject of comment in Admiralty court collision cases when sounds have never been heard, and mistakes have followed.

Probably no company has realized more fully the advantages of having good and powerful whistle apparatus than the White Star Line, and this is practically demonstrated by the careful and complete tests which they have given to Mr. Willett Bruce's patent. It is fitted among other vessels on the Cedric, where it has been for eighteen months, during which time it has given entire satisfaction, both as regards reliability and regularity, and her commander is enabled to signal most effectively and distinctly with it, particularly at such times as when going up North River to New York.

The Macbeth Iron Company, of Cleveland, engineers, founders and machinists, builders of blowing engines, etc., and the Bruce-Meriam-Abbott Company, also of Cleveland, builders of gas engines, were consolidated on June 1st, the name of the new company being the Bruce-Macbeth Engine Company.

Both of the above companies have been long established in Cleveland, and their amalgamation makes one of the largest and strongest companies of its kind. The Macbeth Iron Company dates from the year 1870, having been known until late years as Macbeth & Company. The Meriam-Abbott Company, predecessors of the Bruce-Meriam-Abbott Company, was organized in 1900, and has been one of the pioneers in the manufacture of the commercial gas engine and its development to the present standard of perfection.

It is the purpose of the Bruce-Macbeth Engine Company to continue the business of both of the former companies on a much larger scale than before. The manufacture and development of the gas engine will be continued, and the former line of work of the Macbeth Iron Company, building of blowing engines and general machine and foundry work, will be conducted as heretofore.

It is the intention of the new company to concentrate the two present plants in the former plant of the Macbeth Iron Company on Center Street, N.W., Cleveland. Alterations to the present buildings will be made and several new buildings will be erected to accommodate the enlarged business, and the combined equipment of the two companies in one plant will make a very complete and modern shop.

The officers of the company are as follows: President, W. C. Bruce; vice-president, C. W. Kelly; secretary and treasurer, C. J. Snow; manager, C. E. Curtiss. The above, with A. D. Macbeth, J. B. Meriam and F. B. Abbott, constitute the board of directors. Mr. Bruce, president, was formerly president of the Bruce-Meriam-Abbott Company. Messrs. Kelly, Snow and Curtiss retain the same positions formerly held in the Macbeth Iron Company.

THE SAO PAULO TRAMWAY, LIGHT AND POWER COMPANY'S ANNUAL REPORT.

The Sao Paulo Tramway, Light and Power Company was incorporated in Ontario in 1899 as a street railway, lighting and power company. They operate eighty miles of street railway in the city of Sao Paulo, Brazil. The franchise ex-