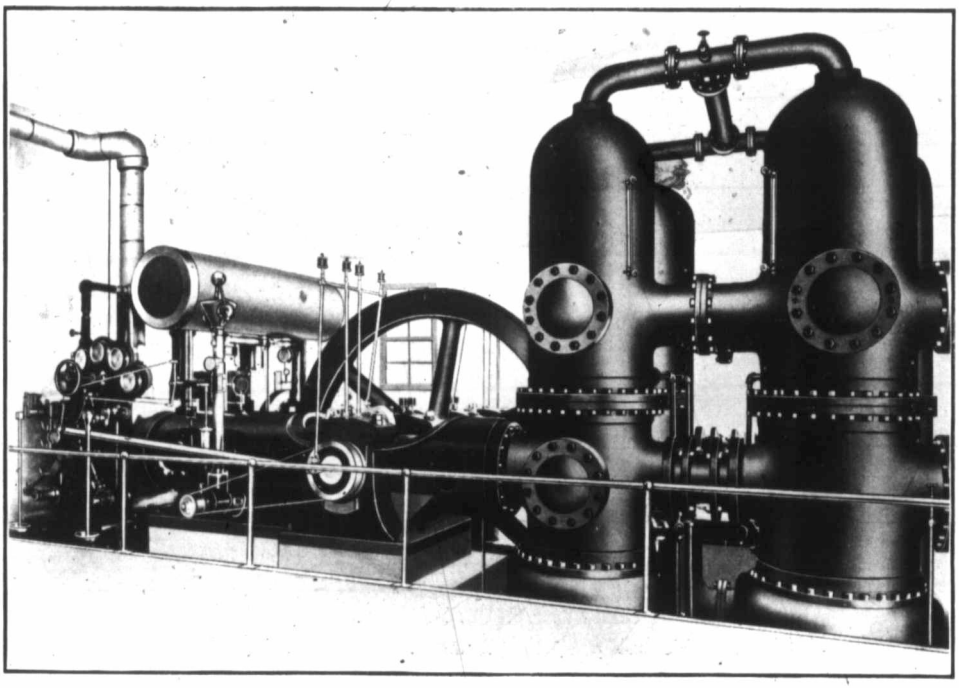
Allis-Chalmers-Bullock,
LIMITED

BULLETIN 400 JUNE, 1907

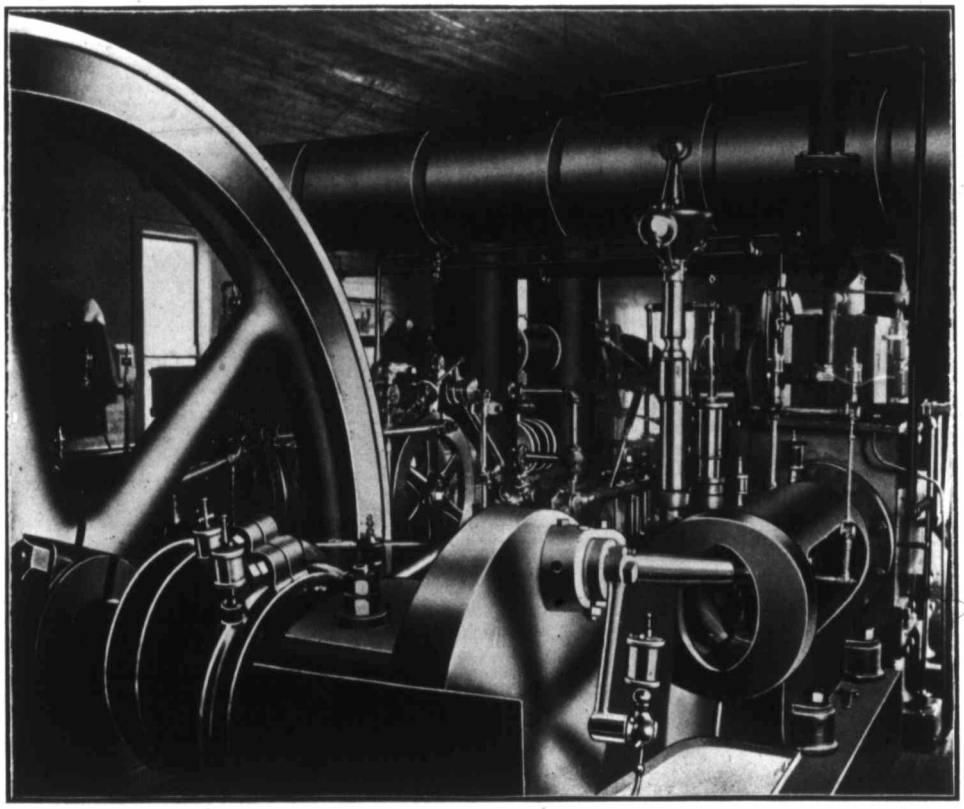
HIGH DUTY

Horizontal, Double-Acting, Crank and Fly-Wheel Plunger Pump.



Installed at the City of St. Thomas, Ont.

MONTREAL, CANADA



High Duty Horizontal Double-Acting Crank and Fly-Wheel Plunger Pump, driven by a Cross Compound Reynolds Corliss Engine at Glace Bay, N.S.
Capacity, 2,000,000 gallons in 24 hours.

Pumping Engines

This bulletin illustrates a few of the Canadian installations of pumping engines built from Allis-Chalmers Co. designs.

On the opposite page is shown the Horizontal Double-Acting Crank and Fly-Wheel Plunger Pump, driven by a Cross-Compound Reynolds Corliss Engine, built by Allis-Chalmers-Bullock, Limited, for the Corporation of Glace Bay, N.S.

This type of pumping engine is one which we build for water works and mill service requiring the highest efficiency and economy in operation.

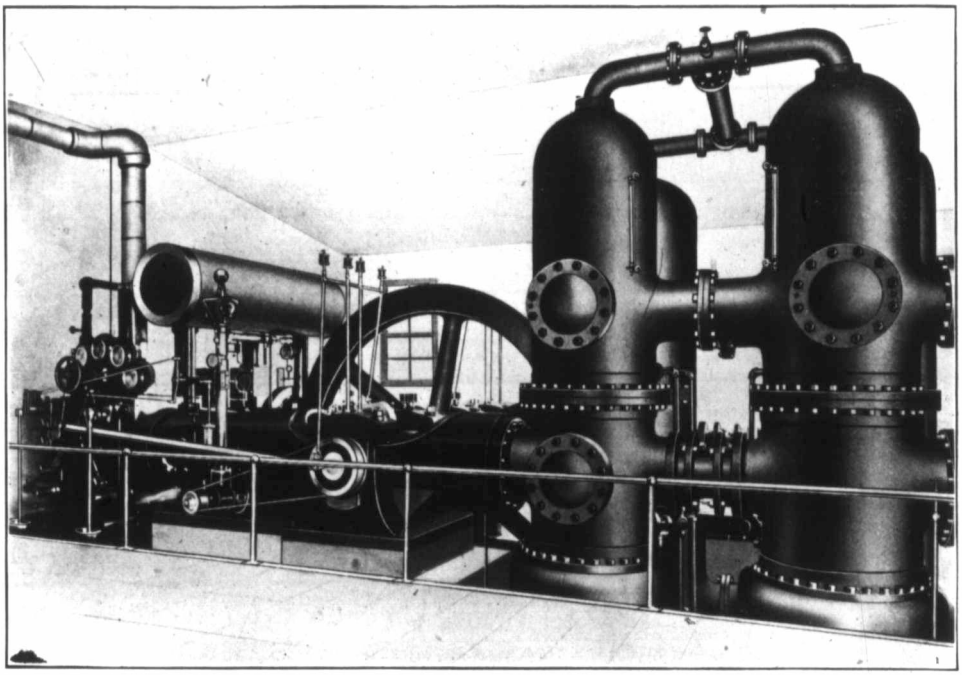
Where the purchaser is not cramped for space and does not require a unit of vertical build, this design is specially advantageous.

In determining the selection of this type, its simple construction, relatively small initial cost and low expense for maintenance and repairs are important factors.

This pump was installed in September, 1906.

Its capacity and principal dimension are as follows:—

Capacity, 2,000,000 imperial gallons in 24 hours.
Water pressure (Domestic), 95 lbs. per square inch.
" " (Fire), 100 lbs. " " "
Steam " 100 lbs. per square inch.
Vacuum " 26 inches of mercury.
Speed " 60 R. P. M.
H. P. Cylinder, 14 inches diameter, 24 inches stroke.
L. P. " 28 " " 24 " "
Pump Plungers, 9½ " " 24 " "
Fly-Wheel, 16 feet diameter, weight about 10,000 lbs.
Suction Pipe, 12 inches diameter.
Discharge Pipe, 10 " "
Condenser, Jet type.
Duty, 100,000,000 per 1000 lbs. dry steam.

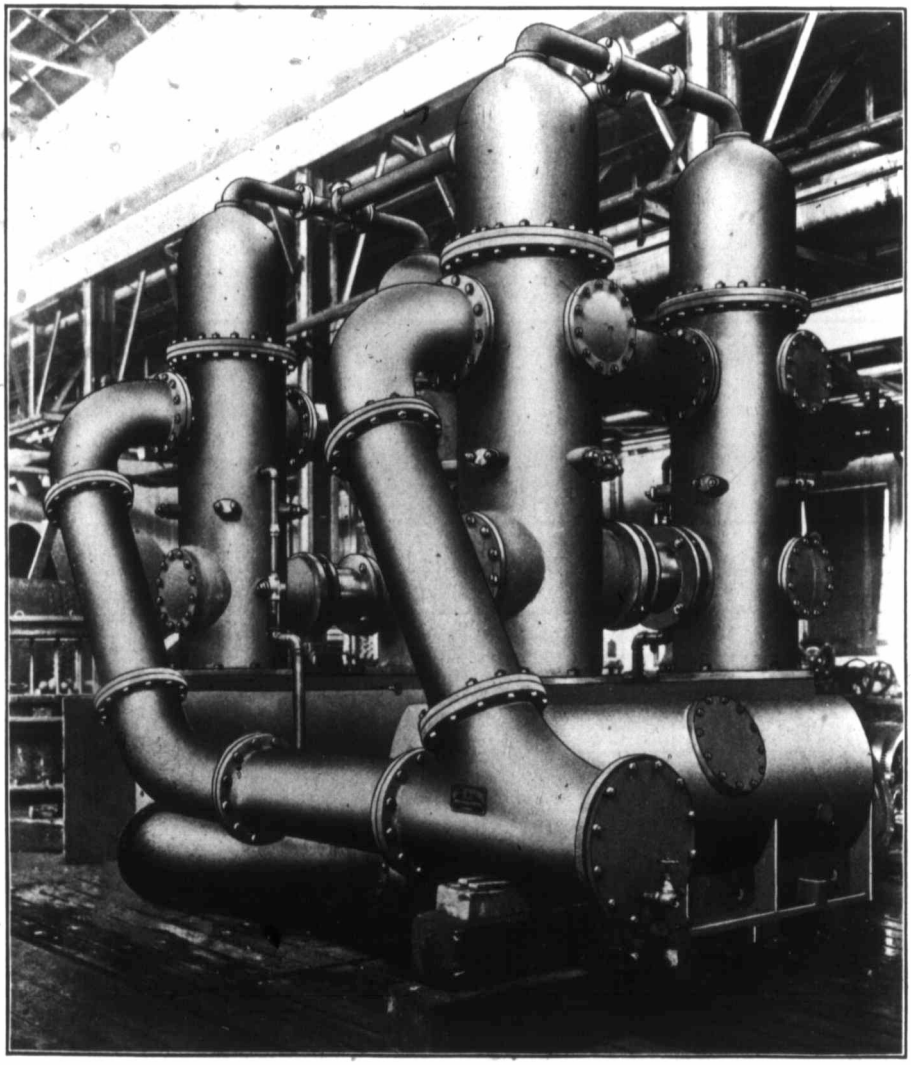


High Duty, Horizontal, Double-Acting Crank and Fly-Wheel, Plunger Pump, driven by Cross-Compound Reynolds-Corliss Engine, at the City of St. Thomas, Ont. Capacity, 5,000,000 gallons in 24 hours.

The High Duty, Horizontal, Double-Acting Plunger Pump, driven by Cross-Compound Reynolds-Corliss Engine page 4 was installed at the City of St. Thomas, Ont., in June, 1906. This type of pumping engine is adapted for water works, irrigating and mill service under condition where economy of space need not be considered, and low first cost is desirable, and at the same time especial attention is given to securing efficiency, durability and accessibility with particular regard to safety in operation.

The capacity and principal dimensions are as follows: —

Capacity, 5,000,000 imperial gallons in 24 hours.
25 Total Head, usual service, 150 feet.
" fire service, 285 feet.
H. P. Cylinder, 18 inch diameter, 24 inches stroke.
L. P. " 34 " " 24 " "
Pump Plungers, 13 3/8" " 24 " "
Steam Pressure, 100 pounds at boiler.
Vacuum, 26 inches of mercury.
Speed, 75 R. P. M.
Fly-Wheel, 10 feet diameter, weight about 10,000 lbs.
Suction Pipe, 20 inches diameter.
Discharge Pipe, 18 " "
Condenser.—Surface type.



Horizontal, Double-Acting, Crank and Fly-Wheel Plunger Pump, under construction in the shops of Allis-Chalmers-Bullock, Limited, for the City of Fredericton, N. B.

On the opposite page is shown a Horizontal Double-Acting Crank and Fly-Wheel Plunger Pump under construction for the City of Fredericton, N. B.

The capacity and principal dimensions are as follows:—

Capacity, 1,000 gallons per minute, and 3,000 gallons per minute.

Pressure, 40 pounds and 60 pounds.

Steam Pressure, 100 pounds.

Vacuum, 26 inches of mercury.

Rotative speed at rated capacity, 18 R.P.M. and 54 R.P.M.

Piston " " " 72 and 216.

H. P. Steam Cylinder, 14 inches diameter and 24 inches stroke.

L. P. " " 28 " " 24 " "

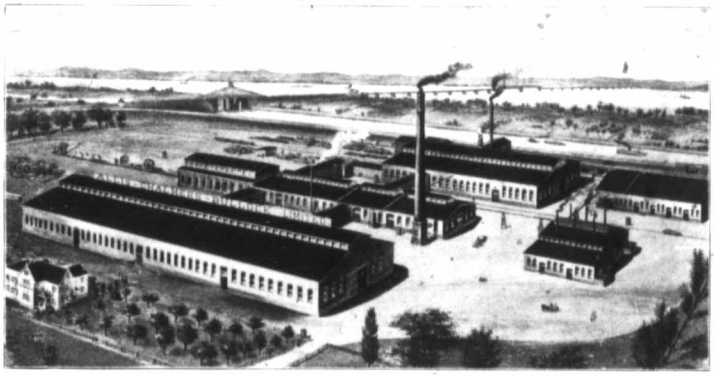
Pump Plungers, 14⅝ " " 24 " "

Fly-Wheel, 12 feet diameter, weight, 12,000 pounds.

Condenser, Jet type.

Duty, 88,000,000 ft. pounds per 1000 pounds of day steam when pumping at rate of 1000 gallons against a total pressure of 45 pounds, including suction.

Duty, 75,000,000 ft. pounds per 1000 pounds of dry steam when operating at rate of 3000 gallons against a total pressure of 85 pounds, including suction.



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