

PHILADELPHIA, July 11th, 1863.

NEW PUMPING APPARATUS FOR THE MONTREAL WATER WORKS.

SPECIFICATION OF TURBINE.

1st. FOUNDATION PLATE.—The foundation plate is to be made in cast iron, and in the shape of a ring of 9 feet 9 inches outside diameter, and 7 feet inside diameter, the section of said ring is 2½ inches thick when finished on top and bottom. Said ring is to have an inside and outside rim of one inch width and depth in addition to the plate. Said foundation plate is to have six arms and a centre of the same thickness as the plate, namely—2½ inches. Each arm is to be 8 inches wide near the centre and 6 inches on the outside. The centre is to be 14 inches diameter. The top and bottom of this plate is to be faced, and is to have 12 foundation holes of 1½ inch diameter. The plate is to be put down level with 12 foundation bolts, each 10 inches long, in the shape of wood screws, and to have fitted on it the stands and gate. After being levelled said foundation plate is to be under-run with sulphur.

2nd. GATE STANDS.—The gate stands are to be 6 in number, and are to be of cast iron. They are to be of the form shewn on plan, and the main body and feet are to be of 1½ inch thickness of metal. The bottom or feet are to be 12 inches square, the top is to be in the shape of an L, 8 inches wide. Said stands are to be planed, fitted, and secured by means of proper bolts to foundation plate and turbine cylinder.

3rd. TURBINE GATE.—The turbine gate is to be made in cast iron, of 9 feet 4 inches inside diameter, 27 inches inside height, or 28½ inches total height when finished. It is to be of the form represented on the plan, with 2 ribs, 2 inches wide and 1 inch thick, also 2 bosses which are to be fitted to receive the gate rods. Said gate rods are to be 10 feet 3 inches from centre to centre, the bottom and inner side of top flange are to be faced true, and are to be made