

decomposes the carbonates, forming tannates, which are insoluble; but their specific gravity being light, they do not subside, but remain continually floating in the boiling currents; and, moreover, being amorphous, they have no tendency whatever to agglutination, and therefore do not incrustate on those surfaces with which they come in contact. The sulphate of lime, however, is not decomposed by tannin, and will form a scale, notwithstanding its presence. The same objection holds against tannin, in its free state, as offered in the above named agents, as it does against free acetic acid—it will attack the iron of the boiler; though, as the tannate of iron is insoluble, the corrosion will not be as rapid as with the acetic acid, which forms a soluble acetate with iron.

THE PETERBOROUGH WATERWORKS.

BY A. C. M'CALLUM, M.E.

The pumping plant of Peterborough Water Company, recently placed in position by the Wm. Hamilton Manufacturing Co., Ltd., of Peterborough, is one well worthy of being described, as the capacity of the pumps

The plant is of the direct pumping system, requiring no stand pipe or reservoir, and is employed for fire purposes, as well as for domestic use.

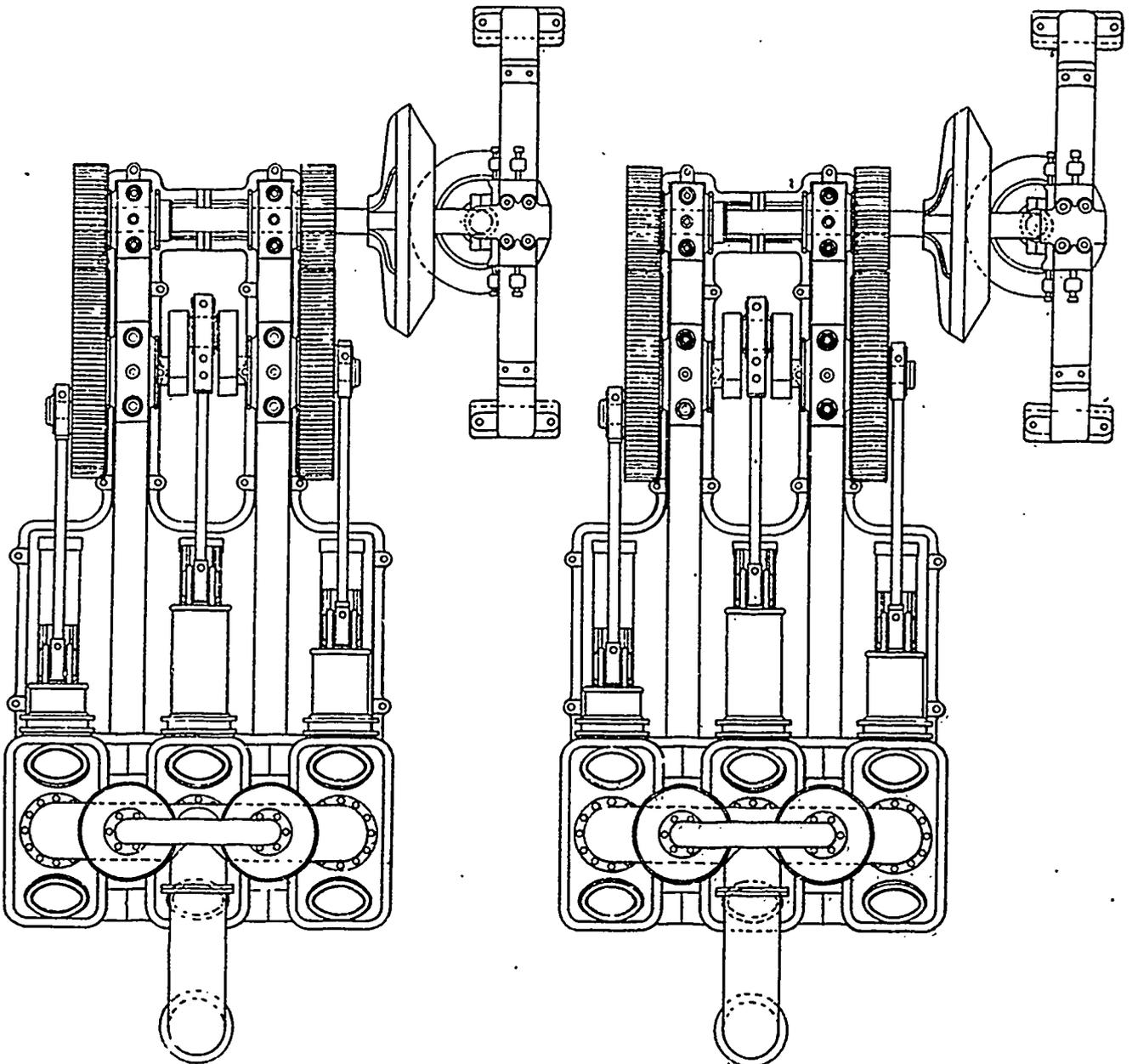
The demand for fire purposes is met by increased speed of the pumps; notwithstanding this, the pumps will not be called upon at any time to exceed the average working space of reciprocal pumps.

The pumping station is situated about $2\frac{1}{2}$ miles north of the centre of the town upon the bank of the Otonabee River, which forms part of the now famous Trent Valley Canal route.

The pump house is built upon the west end of the new timber dam recently constructed, and presents a very pleasing appearance from the roadway running up the river side.

The foundations of the pumping station and wheel pits, together with the foundation for the machinery, are carried up from the bed rock of the river to machinery floor and are entirely built of rubble masonry.

The walls of pump house are built frost proof. The outside walls are built of red brick, relieved in panel. An air space is made between the outside and inside walls; the inside walls are built of white brick.



PETERBOROUGH WATER WORKS.—PLAN OF PUMPS.

are such as to suit the requirements of many of our larger as well as smaller towns throughout the Dominion where water power can be utilized.

The pumping plant is a water power one, and consists of two sets of triplex single acting power pumps.

The pumping station is well lighted, having four large gothic windows, and, together with the several smaller windows, makes the interior, with its white brick walls and panelled hardwood ceiling, present a very pleasing appearance.