

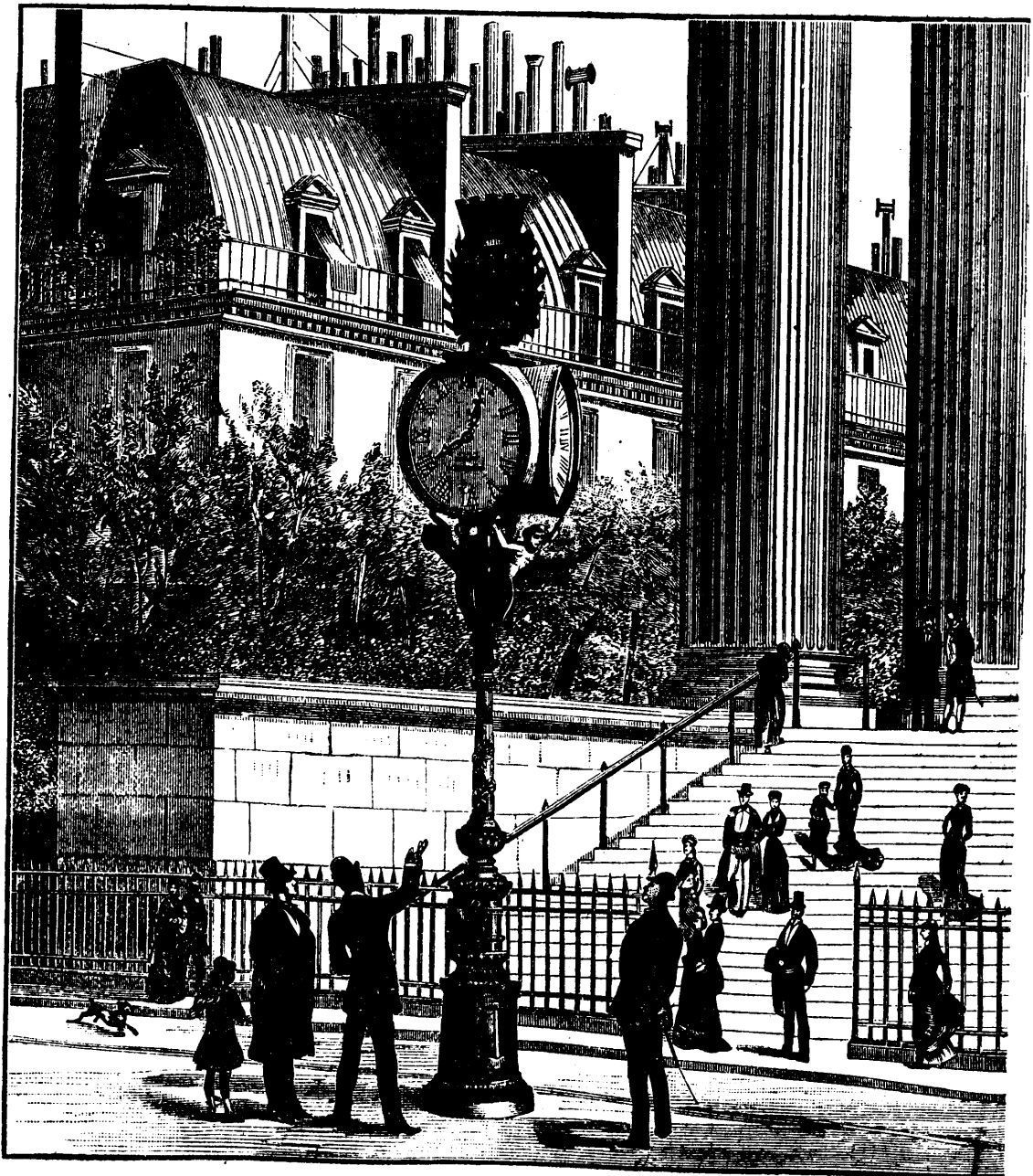
Hoping that you will go on in the herculean task you have undertaken, (that is, to educate the public to what is best for their own interest, and have them appreciate your efforts,) I am truly yours.

ALEX. W. MURRAY.

### PNEUMATIC CLOCKS.

The accompanying illustration gives a representation of a street clock operated on the pneumatic principle, a convenient system which has been largely adopted in Paris and other cities of continental Europe. Compressed air in this plan is made use of to operate all the clocks of a city or district simultaneously, precisely as electricity is similarly employed. The parts of the pneumatic clock system are, the central clock, the receiving clocks, and the tubes and intermediate mechanism for conveying compressed air to the receiving clocks. At the central station a reservoir of compressed air is provided containing about 25

cubic feet at about five atmosphere pressure. From this reservoir the compressed air is conducted to a second reservoir, in which its pressure is regulated at seven-tenths (7-10) of an atmosphere. Every minute the distributing reservoir is placed in communication with the distributing tubes by the action of the mechanism of the central or distributing clock. The central station is provided with several of these clocks, so that if one should become disordered another can be set in operation within a few seconds. A distributing tube connects with the several mains which convey the compressed air into the various districts where pneumatic clocks are provided. The mains are of wrought iron, 1 1-16 inches in diameter, and are connected with lead tubes three-fifths of an inch in diameter, for conveying the air into the houses when necessary. With a pressure of seven-tenths of an atmosphere, it is found that any required number of clocks can be operated at a distance of from one to two miles from the central station.



PNEUMATIC CLOCK IN PARIS.