The annexed engraving represents a view of the famous water-pipe at West Philadelphia, designed by Mr. H. Howson, of Camden, N. J. (late of Philadelphia), and also to a recent number of the Spectator- American.

The central portion of the tower, which consists of the pipe for receiving the water is composed of plate iron, varying in thickness from three-eighths of an inch at the bottom to one-fourth of an inch at the top, and five feet in diameter and one hundred and thirty feet long. This pipe is riveted to a flange on a cast iron plate two feet and a half inches thick, and the latter is securely bolted to the main foundation plate, which is permanently attached to a substantial stone foundation by means of anchor bolts. An opening is left in the stone foundation for the passage of a twelve inch branch pipe, which communicates with the distributing main, and with the interior of the central pipe of the tower. To a height of thirty-six feet above the ground is built the masonry (cast stone) which forms the pedestal of the column.

This is octagonal; fifteen feet across, with a circular opening nine feet six inches in diameter, thus leaving an annular space of two feet three inches between the outside of the pipe and inside of the masonry for the spiral stairway. Radiating from the center of the pipe and passing across the annular opening at suitable intervals, are a number of rods connected to both the pipe and the stonework, thus serving the double purpose of connecting the masonry and pipe together, and acting as supports for the steps. At each of the eight corners of the pedestal are built buttresses, twenty-four inches high, and twenty-two feet across from one buttress to the opposite. The upper portion of the stone work is surmounted with a cornice twenty feet across, above which, on each of the eight sides, are cast iron panels ornamented with Gothic tracery. Access to the interior is obtained through a gothic door-way three feet wide and eight feet high. To the top of the masonry are secured three iron rods at the corners of which, and in a line with the corners of the stone work, are the eight pedestals for the reception of the series of cluster columns which form the exterior of the shaft. Between these pedestals are ornamental gothic railings. At intervals of ten feet in height are cast iron rings, which serve as connections for the cluster columns. Spiral string-pieces are bolted to the outside of the pipe, and similar pieces to the inside of the columns, both having a number of small flanges to which the steps are bolted separately. To the exterior string-pieces are secured a series of castings, so carved as to represent a continuous gothic scroll. These are further confined to their places by a suitable hand rail, which is bolted to the cluster columns. By this arrangement the spiral string-pieces and the hand rail act as diagonal braces to the columns. The stairway terminates at a landing seventeen feet across, which is composed of wrought iron plates laid on radiating cast iron beams, one end of which are fastened to the pipe and the other to the corners of the entablature. The whole is supported by the cluster columns and ornamental brackets, securely bolted to both the beams and the columns. Surrounding the landing is an ornamental gothic railing of a similar pattern to that before referred to, bolted to the columns. The columns are continued upwards through the platform, and are connected together at the top by gothic arched pieces, and to the pipe by tying buttresses, the tops of the columns themselves being furnished with suitable pinnacles. The top of the pipe is surmounted with a spire of plate iron, which terminates in a flag staff. The height from the ground to the platform is one hundred and fifteen feet, from the level of the river to the platform upwards of two hundred and twenty-five feet, and from the ground to the summit of the spire, one hundred and forty feet. The water for supplying the district of West Philadelphia is forced from a subterranean reservoir, constructed with the river Schuylkill, by means of two large Cornish engines, also designed by Mr. Howson.

The surplus water not in immediate requisition ascends the interior of the stand pipe, and thus an efficient head is provided. Many stands, as adjuncts to water works, have been erected in various localities, among others may be mentioned that at the East London works. These have generally been made quite plain, without any ornament whatever. A plain pipe erected in a prominent position in so flourishing a district as that of West Philadelphia, has been somewhat of an eye-sore, and great credit is due to the designer for a structure in which both utility and ornament are combined.

The people of Philadelphia have exhibited excellent judgment and correct taste, in adopting and carrying out this design, which does great credit to Mr. Howson.