



FIG. I., PLAN NO. II.—FRONT PERSPECTIVE.

The grounds around the Grammar School-house, as given in this block plan, contain from 18,000 to 20,000 square feet, or between one-third and one-half of an acre. These grounds are enclosed, and divided into two separate yards and a lawn, by substantial close board fences, *f, f, f, f, f* (Fig. 2), 6 feet high, neatly made, and painted white. The boys' play-ground, B, and the girls', G, are large; but the lawn, E, is small, and is planted with trees and shrubbery. The gravelled side-walks, *s, s, s*, running on three sides of the lot, are shaded by rows of elms, maples, and lindens, set near the curb-stones. The gates, A, C, D, and the gravelled walks, *d, d, d*, lead to the front and the two side-doors of the School-house. The out-buildings, *i, i*, are arranged with a large number of separate apartments on both sides, all well ventilated, each furnished with a door, and the whole surrounded with evergreens.

In the plan of the projection,

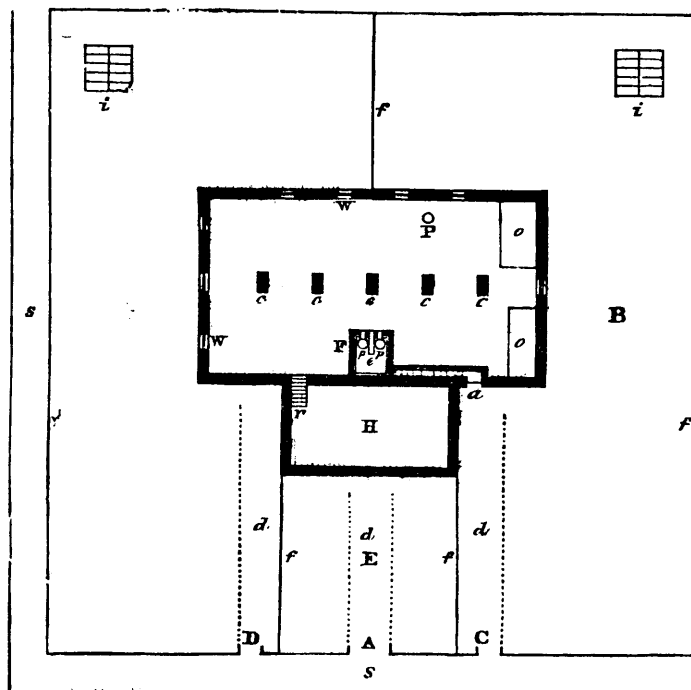


FIG. II.—BLOCK PLAN OF GROUNDS, ETC., OF PLAN NO. 2 FOR A GRAMMAR OR UNION SCHOOL.

The horizontal section of the furnace, F, merely shows the ground plan. The cold air passes through *a* to the air-chamber, where it is warmed by the fires in *p, p*,—two cast-iron cylinders, 14 inches in diameter. The evaporator, *e*, holds about fifteen gallons of water, which is kept in a state of rapid evaporation, thus supplying the air-chamber with an abundance of moisture. In the plan and construction of the various parts of the furnace, special pains have been taken to remove all danger of fire—a consideration which should never be overlooked. The furnace is covered with stone, thickly coated with mortar, and the under-side of the floor above is lathed and plastered, not only above the furnace, but at least ten feet from it in every direction.

The cellar walls and the stone piers *c, c, c, c*, are well pointed, and the whole inside, including the wood work overhead, is neatly whitewashed, giving this apartment a neat and pleasant appearance. The walls of the building itself are of stone, about two feet thick, faced with brick, and painted a tasteful color.

PLAN OF THE FIRST FLOOR OF A GRAMMAR OR UNION SCHOOL.

In this Plan (Fig. 3) there are three entrances to the building; the front, A, and the two side doors, B for boys, and G for girls, leading

H, the stairway, *r*, leads to the cellar, which is 7 feet in the clear, and extends under the whole of the main building. The cellar is well lighted, having eight windows, *w, w*, with ten panes of 7 by 10 inch glass. The windows, being hung with hinges on the upper side, and fastened with hooks and staples at the lower edge, may be opened by raising them into an horizontal position, where they are fastened with hooks as when closed. With this arrangement it is easy to keep the cellars well ventilated at all seasons. The openings for the admission of fuel into the boxes, *o, o*, are furnished with sheet-iron shutters, fastening on the inside. The school-house is provided with an abundant supply of good water, obtained from a fountain or from a well, which is generally outside the building, the water being brought in by a pump, P. A supply of good water for a school house should not be considered merely as a convenience, but as absolutely necessary.

into the entries F, C, C. The front is a large double door, with a beautiful frontice of fine hammered granite. At all the outside doors are two or three hewn granite steps, furnished with four or six scrapers at each door. Pupils belonging to the Schools in the lower story, pass from the side entries into the middle one, and ascending two steps at *a*, enter their respective rooms T, S, which are rather larger than those in the primary and intermediate School houses, being 36 feet by 32 feet inside, and 11 feet high in the clear. In each of the entrances C, C, there is a provision *t, t, t*, for setting up umbrellas, as described on page 22 of this No. of the Journal.

The seats and desks in the rooms T and S, are of the same dimensions and arranged in the same manner as those in the primary School house described at length on the 13th page of the Journal for January, 1849. A section of these seats and desks may be seen in Fig. 5. The small iron posts *c, c, c, c*, about 2½ inches in diameter, supporting the floor above, are placed against the ends of the seats, so as not to obstruct the passages at all. Besides the platforms P, P, 20 feet by 6 feet—the tables, 3 feet by 4 feet, for the Teachers, and the closets *l, l*, for brushes, &c.—there are blackboards, painted upon the walls, extending from the doors D, D, to the windows, 14 feet long by 14