

SCHOOL ARCHITECTURE.

BEFORE PRESENTING THE PLANS AND ELEVATIONS OF SCHOOL BUILDINGS, I HAVE DEEMED IT IMPORTANT TO MAKE THE FOLLOWING SUGGESTIONS IN REGARD TO A FEW PRACTICAL POINTS:

1. SITE FOR SCHOOL HOUSES.

Healthfulness is an important consideration. Avoid swamps, stagnant pools and low places. Some select low ground for the sake of shelter in winter. The best way, however, to secure shelter is to build a warm house, and keep it in good repair. In this State every school house should be so situated as to have access to the south wind during the summer season. The north side or north foot of a hill is undesirable. Next to healthfulness is beauty of location. Build on the most attractive spot, if practicable. Some are tenacious to have the house exactly in the center. It is much better, however, to locate half a mile or more from the center, provided a more choice spot can be secured. Let not selfishness or stubbornness stand in the way. Every good citizen should be willing to yield in this respect. It is far better for children to walk a little farther to a beautiful spot, than spend six hours each day where the surroundings are uninviting. The site itself should be an education.

2. FRONT OF BUILDING.

The best front is that toward the east. It is important that a school room should have one end unbroken either by windows or doors, for blackboards and teacher's stand. The rear end is usually occupied for that purpose. But if the school house fronts north, the other end must be either cut up by windows, or else the room is deprived of the benefit of the prevailing south wind during the summer season. If the building fronts south, the wind sweeps through the entry along the aisles, whenever a door opens, thus continually blowing dust about the room and into the lungs of teacher and scholars. A south front on this account is objectionable. If the house faces west, the school room is exposed to the piercing west and northwest winds of winter. A common entry way will not wholly obviate this inconvenience, for when the inside doors are open the outside doors will also be usually open. A west front, however, is better than a south, from the fact that in summer the breezes can pass through the windows from side to side of the building. But, other things being equal, AN EAST FRONT IS THE BEST.

3. OUT-HOUSES.

Every school house designed for both sexes should have two out-houses. Many a child of delicate and sensitive organism contracts permanent physical injury, and becomes a victim of untimely death by delaying to obey the calls of nature at the proper time. The too

prevalent custom is to build one out-house with two compartments. It is far better, however, to build a separate out-house for each sex, on the rear of the lot, and at some distance apart. Not only should such buildings be erected, but care should be taken that they are kept constantly in proper condition.

4. LIGHTNING RODS.

As the best summary of directions on this subject, and the most authoritative, I give below the very valuable opinion of Prof. Joseph Henry, of the Smithsonian Institute, Washington, D. C., as stated in a letter addressed to N. Capen, Esq., of Boston, Mass., under date of May 4, 1870:

INSTRUCTIONS FOR THE ERECTION OF LIGHTNING RODS.

1. The rod should consist of round iron, of about one inch in diameter; its parts, throughout the whole length, should be in perfect metallic continuity, by being secured together by coupling ferrules.
2. To secure it from rust, the rod should be coated with black paint, itself a good conductor.
3. It should terminate in a single platinum point.
4. The shorter and more direct the course of the rod to the earth, the better. Bendings should be rounded, and not formed in acute angles.
5. It should be fastened to the building by iron eyes, and may be insulated from these by cylinders of glass. (I don't, however, consider the latter of much importance.)
6. The rod should be connected with the earth in the most perfect manner possible, and nothing is better for this purpose than to place it in metallic contact with the gas pipes, or, better, the water pipes of the city. This connection may be made by a ribbon of copper or iron soldered to the end of the rod at one of its extremities, and wrapped around the pipe at the other. If a connection of this kind is impracticable, the rod should be continued horizontally to the nearest well, and then turned vertically downward until the end enters the water as deep as its lowest level. The horizontal part of the rod may be buried in a stratum of pounded charcoal and ashes. The rod should be placed, in preference, on the west side of the building. A rod of this kind may be put up by an ordinary blacksmith. The rod in question is in accordance with our latest knowledge of all the facts of electricity. Attempted improvements on it are worthless, and, as a general thing, are proposed by those who are but slightly acquainted with the subject.

JOSEPH HENRY.