

from the accompanying drawing, which exhibits a plan of the second story of the main building. In this, G, F, F, represent the rear, and M, M, M, the front towers. The lecture-room is 100 feet in its greater dimension, 64 feet from I to C, and 88 feet to the extremity of the upper gallery F, F. The curved dotted line represents the front of the gallery, which is in the form of a horse shoe. The dotted line in the rear tower represents the extension of the gallery into this space.

The second illustration exhibits a perspective view of the lecture-room from the west side under the gallery; and, when viewed along with the ground plan, shows better than any description could do, how well the second requisite has been accomplished: that every person should have an opportunity of seeing, as well as of hearing distinctly.

The speaker's platform is placed between two oblique walls. The corners of the room which are cut off by these walls afford recesses for the stairs into the galleries. The opposite corners are also partitioned off, so as to afford recesses for the same purpose. The ceiling is twenty-five feet high, and, therefore, within the limit of perceptibility. It is perfectly smooth and unbroken, with the exception of an oval opening nearly over the speaker's platform, through which light is admitted. The seats are arranged in curves, and were intended to rise in accordance with the *panoptic curve*, originally proposed by Professor Baché, which enables each individual to see over the head of the person immediately in front of him. The original form of the room, however, did not allow of this intention being fully realized, and therefore the rise is a little less than the curve would indicate.

The walls behind the speaker are composed of lath and plaster, and therefore have a tendency to give a more intense, though less prolonged sound than if of solid masonry. They are also arranged for exhibiting drawings to the best advantage.

The general appearance of the room is somewhat fan-shaped, and the speaker is placed as it were in the mouth of an immense trumpet. The sound directly from his voice, and that from reflection immediately behind him, is thrown forward upon the audience; and as the difference of distance travelled by the two rays is much within the limit of perceptibility, no confusion is produced by direct and reflected sound.

Again, on account of the oblique walls behind the speaker, and the multitude of surfaces, including the gallery, pillars, stair-screens, &c., as well as the audience, directly in front, all reverberation is stopped.