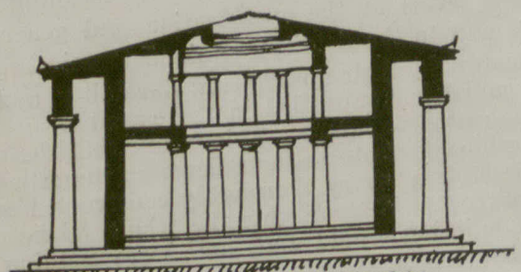
CANADIAN PLUMBER HEATING AND LIGHTING ENGINEER

[NOTE.—Contributions suitable for publication in this Department are invited from subscribers and readers.]

ANCIENT METHODS OF LIGHTING.

The following answer and sketches were submitted in answer to a question in the examinations of the Society of Architects, as to how the Greek temples were lighted:—

No examples of Grecian architectural art remain sufficiently intact to afford us reliable information as to the manner in which light was admitted to the ancient temples. Adequate lighting was probably, however, obtained in one of the two following methods, viz.: By skylight or by clerestory. The open skylight or hypæthral method is the theory favored by M. Botticher, who suggested that the temples were lighted by large horizontal openings in the roof, which would certainly admit light, but at the same time would let in the rain and wind. The theory put forward by Mr. James Fergusson is that temples were lighted by a form of clerestory. The sketch makes his suggestion clear, and it will be seen that with this arrangement the danger of damage and inconvenience, which might be caused by the weather, should the first method be adopted, would be avoided. Many authorities, competent to express an opinion upon the subject, support the theory that the only light entering the temples came in through the door openings.



The PARTHENON
BOTTICHERS THEORY
OF LIGHTING

The PARTHENON
FERGUSSON'S THEORY
OF LIGHTING

RADIATOR EFFICIENCY.

Short, vertical cylinders are presumably the best that can be devised for giving off heat. If they be increased in height, say two or three times, they would do less duty, because the air in contact with the upper parts would have been warmed by the lower part as it passes upward; and, therefore, is not capable of extracting as much heat.

The higher a radiator is, the lower its efficiency per square foot of surface, and 36 or 38 inches has been established as a fair limit of height. (Baldwin on Heating.)

Prof. R. C. Carpenter, in a series of tests at Sibley College, demonstrated the fact that "with radiators of the same height and same dimensions no difference could be traced, which was due either to material or to thickness. With radiators of the same material and the same height, but of different depths, or with varying numbers of tubes, we find invariably that higher results are obtained from the thinner radiator, or those with the fewest rows of tubes.

VENTILATING THE BRITISH HOUSE OF COMMONS.

In the new system recently installed for ventilating the House of Commons in London, fresh air is admitted at the terrace or river front, and, after going through tempering coils situated close to the inlet, passes through a specially-constructed copper gauze screen upon which water jets are continually playing whenever the fan is at work. This screen abstracts all the dust and a large amount of bacteria from the air, which then passes through a glazed tiled subway to a large "Cyclone" input fan, capable of delivering 70,000 or 80,0000 cubic feet of air per minute if required, but normally delivering about 60,000 cubic feet per minute. On leaving the fan the air passes (if the weather is foggy) through a cotton-wool filter, which is remarkably effective in taking all fog out of it. If the outside atmosphere is fairly clear, the air passes at once into the heater chamber, which is a room practically the size of the debating chamber, and in which are situated the heating batteries. Above the heater chamber is the mixing or equalizing chamber, where, as the name indicates, the air is brought to an even temperature and velocity, after which it passes through the floor of the debating chamber into the House itself.

TANK LININGS.

Making tank linings from the sides of old copper lined bathtubs is the way one master plumber secures a good lining and a closet tank at a moderate price in spite of the high cost of copper. The sides of the tub only are used, as these are usually 14 ounces, and are much better than the ordinary hot rolled copper, which is 8 to 10 ounces in weight, although sometimes 6 ounce copper is used.

Hurtubise & Theoret, marble dealers, Cote des Neiges, Que., have dissolved partnership.

A. R. Mitchell, of Freemont, Ohio, was recently in Brantford representing the Mitchell Reversible Window Company, who are considering the establishment of a branch factory.