cost of a fireproof great-risk district and the cost of the fire halls which supply it, to see how far one can be set against the other. There is a proportion of the cost of water supply also which might fairly be charged against the people who won't provide against fire and removed from those who will. If the financial arithmetic works out the working machinery could be devised and then we should have fireproof building settled upon a commercial instead of upon a speculative basis: quod est desiderandum.

STUDENTS' COMPETITION.

Architectural students are invited to send in on or before February 1, 1905, a sketch for a house in a country town, suitable for the residence of a person whose income is $1,500 a year. The house is to be placed on a lot 70 feet wide on the street front by 110 feet deep. The lot is situate on the south side of a street. A block plan must be furnished showing the position of the house on the lot and the arrangement of the grounds. The owner may be supposed to keep no horses or other animals but to be fond of gardening. The plan of the ground floor is to be shown in full on the block plan. Other drawings required will be: 1, the plan of the first floor; 2, the rear (or south) elevation; 3, a perspective showing the front and one side; 4, an elevation of the other side. All drawings to be to a scale of 16 feet to an inch. They are to be drawn in line with India ink on smooth paper or cardboard and are to be arranged within a space in the proportion of 8 inches by 12, and, if possible, no larger than that size. The scale of the drawings is to be, not merely noted, but drawn on the paper. A brief description of the material used in the construction of the exterior must accompany the sheet of drawing. Both drawing and description to be marked by a cipher or nomme de plume, and the author's name, enclosed in a sealed envelope similarly marked, must be sent under cover addressed to the C. H. Mortimer Publishing Company, Confederation Life Building, Toronto. Judgmant of the sketches will be made by a committee composed of members of the Ontario Association of Architects and of the Eighteen Club of Toronto. The following prizes are offered: First, $15.00; second, $5.00; third, one year's subscription to the CANADIAN ARCHITECT AND BUILDER, Architects' Edition.

PICTURES WITHOUT LENSES.

Pinhole photographs are obtained by means of a pinhole punched in tinfoil and made to serve the place of a lens in the camera. Excellent pictures, strange and interesting, are thus obtained, and pinhole photography is becoming one of the fads of the day. The pictures lack the extreme sharpness of those obtained by a regular photographic lens, but they have a greater softness of tone which is delighting to the eye and which is equalled only by the artist's brush. A needle serves better than a pin for punching the hole in the tinfoil. The hole must be perfectly round and smooth. Through this the light is admitted to the sensitive plate, the exposure being made in the regular manner. Mr. N. R. Briggs, who has made a study of the new-style photography says:

"The interest manifested in this new objective is due to the fact that it is of universal focus, the rays focusing in the stop; the perspective is true, no part of the picture being out of focus, while interior and architectural photographs are rectilinear, that is, without distortion of any kind, for the rays of light fall directly upon the plate without auy interference. It is said that work requiring the sharpest definition, such as copies, reproductions documents, etc., can often be done better by the pinhole objective than with a fine lens. The reason is obvious. A lens often focuses sharper than the eye, giving a staring, unnatural eflect to the resulting print."

The Scientific American says: "Another singular feature in connection with pinhole photography is that any size camera may be used. For instance, it will take a picture upon a plate three inches long or twenty inches long. Therefore, it will be seen that all one has to do is to arrange this camera for a small or large plate; and with the latter, interesting panoramic views could be secured. There is no doubt that a very cheap and satisfactory folding camera, in which to use any of the present series of roll films, could be made for special panoramic work."—The TechnicalWorld.

COST OF VENTILATION.

The cost of ventilation in several notable buildings in Great Britain was referred to in a recent paper by Mr. William Henman before the Royal Institnte of British Architects on the plenum system of ventilation. The Glasgow Art Galleries supplied with 9,050,000 cubic feet of air per hour by electric power requiring 66 horse power, costs for power about $1,450 per year per 1,000,000, cubic feet. The Manchester Technical School, supplied with 12,000,000, cubic feet per hour, providing for 3½ changes hourly and requiring 80 horse power, is charged with $1,308 per year per 1,000,000 cubic feet. The Manchester Midland Hotel, ventilated at the rate of 3 changes of air per hour, corresponding to a supply of 6,000,000 cubic feet in that time is charged with 40 horse power electrical energy at an annual cost per 1,000,000 cubic feet of $1,308. The Birmingham General Hospital, with 7 changes per hour or 13,000,000 cubic feet supplied per hour, requires 19 horse power electrical energy and costs about $287 per annum per 1,000,000 cubic feet. The Royal Victoria Hospital, at Belfast, designed by the author, provided with ventilation in turns of 7 changes corresponding to an hourly supply of 5,000,000 cubic feet, and is charged with but 5¼ horse power in a steam plant, costing $97 per 1,000,000 cubic feet per annum.—The Western Architect.

A very interesting piece of work in the way of house raising has recently been executed in Brooklyn, N. Y., in connection with public school No. 85. The structure is located in what is known as the "flooded district," the lower floor being covered with water at times to a depth of several feet whenever there are heavy rains. With a view to remedying this, the building, which is of brick and four stories in height, has just been raised nearly 3 feet. The estimated weight of the building is 7500 tons, and something like 1,000 jack screws were used in the operation of lifting it to its new level. The work was done by 75 men acting simultaneously, and after each turn of the screws the foundations of the building were thoroughly inspected in order to make sure that everything was progressing as it should. The work was done by Miller-Daybill & Co., and is regarded as more of an engineering feat than was the moving back several feet of the Brighton Beach Hotel some years ago, in order to save it from being undermined by the heavy ocean tide.