

second, \$5.00; third, a year's subscription to the CANADIAN ARCHITECT AND BUILDER.

COMPETITION III. To be delivered at the office of the CANADIAN ARCHITECT AND BUILDER on or before the 1st of February, 1907.

The subject is a shop front for a shop such as is usually occupied by a grocer, druggist, hardware merchant, &c.

The building will have light on front and back only. It will have a frontage of 25 feet, in which must be included a separate entrance for a dwelling above the shop. The floor plans of the dwelling must be given on a separate sheet of paper, so as to be reproduced separately on a small scale, for insertion in the text. What is required on the drawing sheet is only—an elevation of the whole front, to a scale of 8 ft. to an inch; a plan through the shop window to a scale of 4 ft. to an inch; and details of the shop window to a scale of 1 ft. to $\frac{3}{4}$ in. The whole to be arranged within a border with sides having the proportions of 7 to 10.

The prizes for this competition are:—First prize \$15.00; second, \$5.00; third, a year's subscription to the CANADIAN ARCHITECT AND BUILDER.

UTILIZATION OF ROOF SPACE.

Land is getting so scarce in New York that it has become necessary to use the roofs of houses for amusement purposes, as was done in the Oriental countries. From the windows of my room at the Hotel Gotham, says a recent visitor to New York, I could see two tennis courts on the roofs of houses in the neighborhood. Wire nettings twenty-five or thirty feet high have been erected and are firmly held by iron rods. The roofs are covered with gravel and fine sand several inches thick and the inclosure is just large enough for an ordinary court. Basket-ball courts are laid out on the roofs of several houses in the same way, and I suppose that sooner or later we will hear of football and baseball games on the tops of the skyscrapers.

"I'd like to make a contract for all the roofs on this private house block," said a speculator in real estate in New York city. "There are upward of twenty or thirty thousand square feet of roofs here that present waste space. But the owners don't seem to realize its value, and they won't rent it to those who know it worth."

There was a quiet shake of the head, which may have indicated anything from despair to shrewd speculation. Then in reply to a query, he added:

"What would I do with it? Why, convert it into an open air sanitarium in winter, and run it as a roof garden or children's playground in summer. Or if the owners objected to such uses I'd make a big greenhouse up here and rent it out to some gardener who knew how to raise hothouse fruits and vegetables in mid-winter. In the summer I'd cover it over with canvas to protect it from the sun, and you could get some of the finest flowers of the year right up here. Oh, there are plenty of uses to which it can be put. Why, only last week I was talking to an architect who said he was spending more time now over the study of the 'extra story' problem than anything else. The 'extra story' is what they call it, and it is the coming big thing in architecture and building. It's going to add a few million square feet of floor space to our city where sick people can live and breathe in the pure air and sunshine."

"Do you know how many square feet of roof space are devoted to winter sanitarium purposes in New York today? Well, as near as I can figure it out, there's upward of 200,000 square feet already in use for this purpose. The New York Foundling Hospital has nearly six thousand, the Presbyterian Hospital a couple of thousand, and Bellevue and all the other hospitals and public institutions have open-air wards on their roofs for patients suffering from pneumonia and pulmonary diseases."

"But it's not the public hospitals that are alone in this field. Private sanitariums are opening up. Doctors and companies are converting the roofs into open air wards. They are getting roofs cheap, to. What is

the value of a roof? Oh, nothing, just a few dollars a week, says some unsuspecting landlord, and he signs a lease for five or ten years at a nominal rental. There are certain reservations about nuisances in the lease, and that is all. Then the sanitarium company covers the roof with a wooden floor, runs a six foot wall on the cold north and west sides and supplies a roof of canvas which can be rolled up or down at will. Some partition off part of the roof with glass. You get all the sun and fresh air that visits the city in winter. There is less fog, mist, dust and ashes up there than elsewhere. It is healthier by fifty per cent on the roof than in the street below. Those who need the sun and not so much cold air, bask and loll around in the sun parlors on the roof, and they recover nearly as rapidly as if they went South. Your modern doctor doesn't ship the consumptive to some sanitarium now as soon as the disease is discovered. He tells him to go up on his roof and spend the nights sleeping out in the open air and his days in resting or walking in the sunshine. Why, there's a big population now in New York taking the consumptive cure in the open air on the roofs. They're doing better than half of those who have exiled themselves from the city and relatives.

"The children are being considered by the designers of the new architecture. A number of the modern apartment houses have roof playgrounds for children. They have toboggan slides in winter for them, and sand heaps to play in in summer. There is an open-air gymnasium on other roofs. A number of public men are advocating the building of all public schools and similar institutions with model roof gardens and playgrounds. They are bound to come soon, and the sooner the better for the health of the future generation."

"Talk about people's palaces, and the lack of space for them in the crowded districts! Why, the space is waiting for the builders free of cost. The roofs of the East Side houses—tenements, apartment houses, stores, schools and other buildings—could be converted into the grandest people's palace of which man ever dreamed. You could have glass-enclosed conservatories, outdoor gymnasiums, ball grounds, gardens in summer, sun parlors and reading rooms in winter. The people who now live without sun and pure air could then get all they wanted. Our architecture is all wrong when it does not make the roof of a city house or public building of service. They are ahead of us in this respect in Europe. Roof gardens, open-air gymnasiums and playgrounds are common in the cities of Northern Europe, and buildings are nearly all equipped with some sort of roof space for pleasure or profit."

"But there is even another point I want to mention. Some wise prophet predicted years ago that within another century all of our winter fruits and vegetables would be raised under glass, and that greenhouses and hothouses would spring up like mushrooms near great cities. He failed to see that they would spring up right in the heart of the city. But they are multiplying rapidly. With a wall on the north and northwest sides of the roof to keep out the cold winter weather, a hothouse or conservatory with a southerly exposure can be made to produce winter tomatoes, strawberries, lettuce and other vegetables. I have seen a number of experiments in this line. The glass-covered roof was heated with steam pipes connecting with the heating plant of the house. The boxes and pots of plants received more sun up there than they would in the country. The cost of raising them is no more than in the country, and better prices could be realized for them when plucked fresh for the table within an hour of the time they were needed."

"A good many of the roofs of our cities are used today for various other purposes. A number of pigeon lofts are located on them, and I understand the owners do quite a thriving business in raising squabs for the market. There are more than a score of chicken yards on New York roofs, filled mostly with fancy poultry, and as many dog kennels where sick dogs are kept in the sun and fresh air for clients. Down in the tene-