

sixteen to eighteen hundred per acre* while in that same city today there is acre after acre on which thirteen hundred persons live their crowded and abbreviated lives. I would rather say, take out an existence.

That one may grasp the meaning of the density of 1,000 per acre we assume there are ten houses to the acre, which would about equal ten houses each on a lot 50 x 80 feet, each house with a population of six persons. This would equal a density of population of 60 to an acre. Now intensify this in the case of a four-story apartment house standing on a lot 60 ft. by 50 ft., in which each apartment contains five persons, and you have a density of 200 to the acre, then multiply this by $3\frac{1}{2}$ and you are near the 1,000 mark; and yet the condition of 200 to the acre is altogether too crowded a one. What then shall be said of the conditions where a thousand or more are found in the same space?

In all of the American cities it is a case of housing the poor man, the wage earning man, upon the expensive land where his wage will pay for but little space—and so bad are the conditions in New York city that there are acres where there are ten persons to every seven rooms—where instead of the minimum of 880 cubic feet of air for each adult there are but 400 cubic feet with only 200 for a child and then only one room out of four receives direct sunlight.

Just here allow me to raise a word of warning in regard to the necessity for adequate air space, taking my text from the mistakes of New York, for in some respects American plans are being followed in the erection of some of our apartment houses in Canada, and they are faulty.

In 1878 the model tenement which secured the first prize was that known as the dumb-bell tenement, the name being derived from the fact that it expands at both street ends and contracts in the centre, to permit of the so-called "air-shaft." The building is seven stories high, with four rooms in the front apartment, three rooms in the back, with one room off the front apartment open to the street and one room off the rear apartment opening on twenty feet or less of back yard—the inside rooms opening on an air shaft whose wall is less than five feet away from the windows of the next house.

This well known case is simply mentioned to illustrate how people have been misled by architects and builders—people too who were endeavoring to improve the housing conditions of the working class. Of course, as might be expected, the evils of 1870 to 1901 are now being righted by adequate laws, but the results have been disastrous to the health and happiness of thousands, and it will be many years before they have been abolished altogether. The evil effects of this tenement housing and overcrowding are shown by the figures given by the Committee on Congestion of Population in New York, which indicate that preventable diseases alone have cost the city from thirty-seven to forty-one million dollars annually for the years 1906-9 inclusive, the total being \$106,248,408.24.

And what is the condition in New York is repeated in Boston where 1,143 persons live on an acre of ground in three and four story