

MODERN BUILDINGS AND FIRES.

The sufficiency or otherwise of some of the newer methods of constructing tall buildings is brought into question afresh by Mr. Jarvis' letter to the *Toronto Mail*, headed "The McKinnon Building." The first in his list of causes of damage to the walls of that structure is that "the expansion of the steel floor girders under such heat thrust the walls outward: no power can prevent this." It would appear, then, that this is a result which must be looked forward to by property-owners who want large modern buildings. If any one looks dubiously at the structures that United States architects are now-a-days pushing into the clouds, he is assured that they are all right—quite scientific—of undoubted strength. But such a thing as fire hazard has not often been allowed much weight in their planning.

To show that architects in the States are not agreed as to the desirability of such structures, we quote from a discussion by the American Institute of Architects at its annual meeting in New York last October. Said Mr. Geo. B. Post: "A tall building is only a tower as a problem of design. A city of towers, which this city will surely be if a check is not placed upon it by the Legislature, would be deplorable. The life of our buildings constructed in the form of steel cages embedded in masonry is to be short, and although I may not live to see it, others here will see the tearing down of many of them. I have removed beams that were cased in solid brick on account of the rusting of the surface of the beams." Another objection made by Mr. Post was this: "Tall buildings are not healthful, because, as bacteriologists tell us, germs of disease that die in sunlight thrive in darkness, and tall buildings would so shut out the sunlight that all sorts of germs might increase and multiply in the confines of our narrow streets."

It is only fair to place opposite to this the arguments of those who believe in sky-scrapers: Mr. W. L. B. Denny, of Chicago, said he had seen steel in Rome 500 years old which showed no effect of rust. In speaking of fires in fire-proof buildings, he said, "the fire should be allowed to burn itself out. We do not need protection from fire half as much as we need protection from fire departments. In a recent fire in a Chicago building the woodwork blazed up, and heated a terra-cotta ornament almost white hot, and when the firemen came and squirted water on it the hot material burst, and did much damage to the building."

At this annual meeting, Mr. T. M. Clark read an interesting paper on "Protection against Fire." The vulnerable parts of a modern building, he said, are the windows. To obviate this, he suggested the use of plate glass built up on wire nettings. These networks could be made ornamental, and thus disguise their usefulness.

CANADA'S TRADE WITH THE UNITED STATES.

A correspondent, whose letter we have mislaid, asked us several weeks ago to give certain figures of Canada's trade with the United States for the past twenty years. What he appeared to want was the yearly amount of our export trade and the aggregate as well. We give both in the subjoined table:

Year.	Aggregate Trade between the two countries.	Our Exports to U.S.
1873.....	\$89,808,204	\$42,072,000
1874.....	90,524,060	36,244,000
1875.....	80,717,000	29,911,000
1876.....	78,003,000	31,933,000
1877.....	77,087,000	25,775,000
1878.....	73,876,000	25,244,000
1879.....	70,904,000	27,165,000
1880.....	62,696,000	33,349,000
1881.....	73,570,000	36,866,000
1882.....	96,229,000	47,940,000
1883.....	97,701,000	41,668,000
1884.....	89,333,000	38,840,000

1885.....	86,903,000	39,752,000
1886.....	81,436,000	36,578,000
1887.....	82,767,000	37,660,000
1888.....	91,053,000	42,572,000
1889.....	94,059,000	43,522,000
1890.....	92,814,000	40,522,000
1891.....	94,824,000	41,138,000
1892.....	92,125,000	38,988,000
1893.....	102,144,000	43,923,000

FRANCE AND THE FRENCH.

The results of the census taken by France in 1891 were published only last month in full. The delay has been great, but now that the report is out it is found to be very voluminous. The statistics are apparently all-embracing, and one may find in them many illustrations of the economic condition of that country. First as to the population. According to expectations and estimates it should have been forty millions at least, but is found to be but little over thirty-eight millions. The population amounted in

1801 to	26,930,756	
1846 "	34,546,975,	average annual increase 170,000
1861 "	35,844,902	" " 86,528
1872 "	36,102,921	" " 23,456
1881 "	37,672,048	" " 174,979
1891 "	38,343,192	" " 67,114

With exception of the war period, of say twenty years ago, the growth was therefore lowest during the last decade, and taking further into account that at the end of 1891 1,130,211 foreigners and 170,704 naturalized subjects resided in France, the vast majority of whom immigrated during the last thirty years, it would appear that the increase of the native population, although nominally more, was really about 50,000 souls a year. This is evidently the result of the comparatively low number of births.

Out of the entire population of the country it was found that 17,485,888 persons, or almost one-half, followed agricultural pursuits; 9,533,560, or about one-fourth, were occupied in the industries, 1,191,333 in transport business, 3,961,496 in commerce, 715,624 belonged to the army, 699,611 to the civil service, 1,114,878 cultivated art and free professions, 1,169,750 were capitalists without occupation, and 1,304,250 appeared to have no specified work. The large number of persons who live an artist life, and the unusual proportion—over three per cent.—who are put down as "capitalists without occupation," attracts the attention. The civil service is well represented, too (where is it not?), and commerce gives employment, in its various ramifications, to more than one in ten, which is a good proportion. Paris has a population of two millions and a half; Lyons, of 440,000; Marseilles, of 388,000; Bordeaux, 256,000; Lille, Toulouse, Nantes and St. Etienne are next in order among the large cities.

Large landed proprietors are in France almost as scarce as manufacturers on an extensive scale, as the following table shows:—

	Masters.	Clerks.	Working-men	Servants.
Agriculture.....	3,570,016	75,400	2,890,118	688,540
Industry.....	1,021,659	207,222	3,319,217	169,477
Transport.....	62,501	138,707	245,979	22,106
Commerce.....	870,969	378,318	480,344	239,424
Art and professions.	420,133			137,397

Commenting on these figures the *Spectator*, which has gone into them with some minuteness, says they give an average of about one man (laborer or servant) for every landed proprietor, and about 3.3 men for every factory, whereas the commercial clerks and working-men together represent about one assistant for each individual firm. Most business houses manage evidently without any assistance. "The French people live in 7,842,053 houses or buildings of whatever kind. On the average 490 persons, or 136 households, exist in 100 houses, but although this proportion appears to be very favorable, as it amounts to less than five people per house, the character of the major-