

LOCAL CONDITIONS AND CONFLAGRATION HAZARDS. QUEBEC, P.Q.

alarm service in a great percentage is also poor, being simply connections to fire stations and without proper devices to indicate the building from which the alarm is received.

The only close groupings of the sprinklered properties are in the district bounded by Charest, Dorchester, Arago, Belleau, St. Colomb, Turgeon, and St. Crepin Streets, Sheet 20 and 21, Block 201-203-213-215-217-219 U. S. B. plan, where there are 10 sprinklered properties covering 35 to 40 per cent. of the total area of these blocks. Only 5 of them have a secondary water supply. Also in the block St. Joseph, Church, Des Fosses and La Liberté Streets, Sheet 22, Block 226 227, about 75 per cent. is protected by automatic sprinklers due to a large departmental store and two other sprinklered premises. The equipment in the departmental store has a secondary supply, but the system is not a modern one.

There are approximately 4,300 buildings of brick or stone-joisted construction. Areas, generally, are small to moderate, 135 exceed 5,000 square feet of which 32 exceed 10,000 square feet. Frame buildings number from between 8,000 to 9,000; the majority are small in area, but 25 exceed 5,000 square feet and 11 exceed 10,000 square feet, 5 exceed 15,000 square feet, 3 exceed 20,000 square feet and one on the Exhibition Grounds exceeds 60,000 square feet. These areas are exclusive of large railway freight sheds and the landing sheds on the wharves. Heights are mostly 1 to 2 stories, some are 3 and a few up to 5 and 6 stories.

In all classes of construction roof coverings are generally good; metal predominates; wooden shingles are found only on a few old buildings. Peak and mansard roofs with dormer windows are common throughout the city. Sawdust in roof spaces is found only in a comparatively few cases. There are many chimneys on wooden supports, and some constructed of cement blocks. Vertical openings are mainly unprotected, and in a few buildings only are well protected. About one third of all skylights are protected by wired glass or external screens; the remainder are, principally, ordinary glass in wooden frames. Window protection is practically unknown. Wall thicknesses in brick and stone buildings are generally good, but walls of hollow cement blocks are frequent in buildings constructed in recent years. Parapets are fairly frequent.

While the larger or most important buildings are heated by hot water systems, stove heat is general, and the Quebec heater (a sheet or cast iron cylinder stove without legs or grate) is extensively used.

There being no municipal scavenging system, accumulation of ashes and rubbish in cellars is common—particularly in dwellings; the general custom is to clean out cellars in the spring of the year after the snow has left the ground. The C. F. U. A. has now inaugurated in Quebec City a "Clean-up and Defects" Dept., similar to that in existence in Montreal for many years. (For report, see Annual Minutes.)

CONCLUSIONS.—The present municipal laws lack most of the essential features of a modern building code, fire limits are not established, and, while in certain sections, particularly within the old city walls where construction is almost exclusively stone or brick, inferior buildings are permitted and within recent years several have been erected and occupied as garages, planing mills, etc.

The fact that on certain principal streets construction is restricted to buildings of the 1st and 2nd Class is of little or no value as the remainder of the block and neighbouring blocks are generally of inferior construction. Heights, areas, floor openings or exposed windows are given little or no consideration. Inspectors appear to be capable, but are too few in number. While the laws are fairly well enforced, some construction was noted, which is either in contravention or due to a very broad interpretation of the law. For example: The erection of an additional story of wood to a large public building of brick-joisted construction was noticed under way, and this on one of the streets where construction is restricted to the 1st or 2nd Class, and addition to height of wooden buildings is prohibited. Due to narrow streets, congestion and unprotected wall openings, the conflagration hazard is marked in that part of "Lower Town," known as St. Roch, serious in St. Sauveur, and in the northern section of "Upper Town," outside of the city walls. In the office and wholesale district and within the city walls, construction is somewhat better, although, in this part, narrow streets, unprotected openings and congestion also prevail. The contour of the city and its high dividing cliff makes the likelihood of a general conflagration remote; nevertheless, at points where buildings are close under and over the cliff moderate winds would carry flying brands over this barrier.