

A CELLULOID FACTORY FIRE.

This fire occurred in a large plant manufacturing a pyroxylin plastic known as fibrelloid, which is a patented trade name for an article commonly known as celluloid. Plant consists of twenty-five distinct sprinklered buildings, basement, one and two stories in height and mostly of mill construction. All buildings are well detached. Eighteen of them are comparatively of small size, while seven contain, in all, thirty-one distinct cut-off fire sections.

Sprinkler systems are supplied through suitable connections from an eight and ten inch yard loop having an eight-inch connection with a thirty-inch high service waterworks main, pressure 105 pounds. Secondary supply consists of a 1,000-gallon underwriters steam fire pump.

The fire originated in the solvent building, a one storey and basement brick building of mill construction, forty-two by forty-two feet area. This building was used for the recovery of camphor from scrap fibrelloid and contained two machines especially designed for this purpose. This process consists of treating scrap with caustic soda and extracting the liberated celluloid. There was always more or less storage of scrap in wooden boxes packed on first floor and in basement. The first notification of fire came from the electric annunciator connected with alarm valves. Engineer promptly notified the fire department which started the pumps. Building was found to be burning fiercely, flames shooting high into the air, as is typical for this class of material. Two streams were taken from pump and the fire department also laid two streams. Attention was directed to the exposed buildings. Sprinklers in first storey, about twenty in number, all opened but apparently had very little effect upon the fire, due to the extreme hazard of the contents. There were twenty-three sprinkler heads in the basement, only eleven of which opened. Very little fire took place in this basement, fire being most vigorous on the south side of the first floor where it appeared to have originated. Sprinklers in the other buildings materially aided in preventing fire from entering them.

Although there was no manifestation whatever of an explosion, three walls of the solvent building fell outward about half an hour after the start of the fire. The cause of this seems to have been the same which has been assigned to other fires of this character, namely, that the heat and gases from the combustion of a large quantity of this material will destroy brick or concrete work as the intense heat, quickly applied, causes unequal and excessive expansion, resulting in failure of the structure. This should be accepted as one of the characteristics of the combustion of large quantities of pyroxylin plastic materials.

The actual cause of the fire is impossible to determine, several theories being advanced, the most likely of which is that there was some foreign material contained in this scrap which may have started the fire.

CONCLUSIONS.

(1) In planning protections against this hazard, the great intensity of the fire over that of an ordinary fire should be thoroughly considered.

(2) The sprinkler equipment should be planned on the assumption that considerable of the water will be evaporated by the excessive heat.

(3) On account of the great amount of heat radiated from this burning celluloid, whether in a fire-

proof vault or not, it is imperative that it should be stored a distance of at least fifty feet from surrounding buildings.

(4) It is desirable to keep the amount of material subject to one fire to five tons or less. If large quantities must be kept on hand, they should be divided into small amounts and stored in separate fire sections, preferably separate buildings.—N. F. P. A. Quarterly.

NEW EDITION OF LIFE AGENTS' MANUAL COMING OUT.

A new edition (the fifteenth) of the well-known LIFE AGENTS' MANUAL has been in course of preparation for some time past and is now in the press. The new edition is thoroughly revised up-to-date and greatly enlarged. At the same time it retains the useful format of previous issues, being not too large to go in the pocket.

The MANUAL contains the premium rates for all policies of all the life companies actively transacting business in Canada, copies of policies, 20 payments Life Plan, giving the guaranteed values, etc., at age 35, and explanations of policies; conditions of policies as to days of grace, loans, cash surrender values, paid-up policies, extended insurance, automatic non-forfeiture, avoidance of policy, indisputability, revival, etc., together with much other information which the life man daily requires and cannot obtain so conveniently elsewhere.

The price for single copies is \$3.00. THE CHRONICLE is now booking orders at its office, 10 St. John Street, Montreal.

PRUDENTIAL LIFE OF WINNIPEG.

The Prudential Life Insurance Company, which has been much in the limelight of late in connection with its application for a Dominion charter of incorporation succeeded yesterday in having its bill passed by the Banking and Commerce Committee. A statement of particular interest in view of the allegations made in one quarter regarding this company was out forward by Hon. W. T. White.

He pointed out that it would by its charter have two years within which to get its license from the department. Before granting such a license the department would visit the head offices of the company and would make a thorough and complete examination of its affairs. There would be a complete valuation of all its liabilities, an examination of its assets and proof required that its assets exceeded its liabilities, other than capital stock, of every kind, by at least \$100,000—that is, it must show an unimpaired capital of at least \$100,000.

"From the assets above mentioned," said Mr. White, "there will be excluded all shareholders' notes for capital or premium paid on capital as well as all capital of premium unpaid or in course of collection and any agents' balances and outstanding premiums believed by the department to be doubtful or bad. Such assets as these are not allowed according to the standards of the department.

"We will also require that a deposit of \$50,000 in Government or municipal securities acceptable to the treasury board be made with the minister and all the other requirements of the Insurance Act and of its act of incorporation complied with."