MONETARY TIMES THE

LOSSES DUE TO SMOKE AND WATER

How to Prevent Them-Some Excellent Safeguards Suggested.

There is fittle fire insurance literature on the subject of There is fittle fire insurance literature on the subject of smoke and water damage. Therefore, the paper read to the Toronto insurance institute by Mr. F. E. Roberts, inspector of the Norwich Union Fire Assurance, was of unusual inter-est. His paper, while devoted mainly to the question of what is called "smoke and water damage," covers some points of interest in regard to smoke and water in connection with fire problems. Smoke and water damage to buildings and ma-chinery is not touched upon, only that to stocks in mercantile buildings and factories. The fact that while a loss on a build-ing may be moderate, the loss on stock is liable to be heavy. chinery is not touched upon, only that while a loss on a build-buildings and factories. The fact that while a loss on a build-ing may be moderate, the loss on stock is liable to be heavy, leads to this proposition—"Given even an ordinary brick or concrete building, with good fire protection, a moderate loss on building may be expected, and a relatively large loss on building may be expected. stock. This discrepancy is due in most cases, not so much to the actual fire damage to stock, as to the effects of smoke and the water used to extinguish the blaze." The majority of stocks are held liable to material damage by smoke or water and a number may be considered as specially liable. In this latter class are mentioned hardware, millinery, ladies' and children's whitewear and goods of a similar nature, general stocks of dry goods, tea, coffee, spices, wholesale drug stocks, tobacco and many others.

Prevention of Smoke and Water Damage.

Prevention of Smoke and Water Damage. A sure way to prevent this damage is to extinguish the fire when it is of small proportions, which means a small amount of water used, and a minimum of smoke. Private fire extinguishing apparatus, and the "first-aid" from the fire de-partment, consisting of hand chemical fire extinguishers and the chemical engine, one or both, have saved millions of dol-lars worth of property and are especially effective in saving smoke and water damage. Some good system for discovering and giving notice of a fire promptly is advised, as a watch-man reporting to central station or a thermostat system, sim-ilarly connected.

ilarly connected. The point of most interest, however, is how to lessen smoke and water damage in the many fires where a large amount of water has to be poured on blaze and where smoke amount of water has to be poured on blaze and where smoke is abundantly in evidence. It is now mainly a question of good building construction, and the rules for preventing spread of fire should be followed more closely than is generally the case. The most important point is that of lessening smoke and water damage to stock on floors where fire does not pene-trate. This means whole floors, with only the necessary open-ings for elevators and stairways, same to be enclosed by brick or concrete walls, entrance by fire doors. It is evident that unprotected vertical openings allow free passage for smoke and water as well as for fire chutes, dumb waiters, etc., if absolutely necessary, to be treated exactly like elevators. Belt holes are a serious defect, cannot be satisfactorily pro-tected, and are not necessary with electrical power. tected, and are not necessary with electrical power.

Smoke of Penetrating Nature.

Absence of concealed spaces on walls or ceilings, and of easily combustible partitions, finish, etc., the division of large areas by fire walls with fire doors at openings, skylights at head of elevator and stair shafts not entirely of wired glass, but partially of ordinary thin glass (protected where neces-sary by wire netting), easily broken to let the smoke out— all of these have a beneficial effect in lessening smoke and water damage water damage.

water damage. Construction recommendations apply to both smoke and water damage and indeed are about all that can be done to lessen smoke damage. They will do so materially, but not wholly in some cases, as smoke is of a very penetrating nature and fire doors will not keep it out entirely. Another requisite applies to water damage—waterproof and drained floors, for even heavy mill constructed floors will leak. The first is accomplished by a waterproof layer between the upper or wearing floor and that underneath. The method advised by National Fire Protection Association and others is explained in detail. The second requires floors to be laid with a slight pitch or incline towards outer walls, or elevator and stair shafts, or to necessary number of drains in centre of floor. The water is drained by scuppers passing through outer walls, or inserted in elevator and stair shafts, or by piping connected to said shafts, possibly to down pipes that may pass through the building. the building.

Raising stock from floor on skids or platforms, tarpaulins kept for the emergency of fire and used to cover stock at night, are advised. A municipal salvage corps, reporting im-mediately on alarm of fire with necessary equipment could ren-der valuable service. Reducing damage to property, as well as extinguishing fire, seems a proper part of a fire brigade's dutice

duties. What has been said applies also to fireproof buildings as well as to those of ordinary brick or mill construction. The specifications for some buildings erected in the past might read as follows: "Build a tall stove, possibly neglecting any protection to such an unburnable article as cast iron columns, put in more or less kindling in shape of partitions, finish, etc.,

fill it with the necessary contents, generally not bad fuel, leave the draughts open and go away with the proud consciousness of having solved the fire problem at last." Although this idea has been thoroughly exploded, not only by confagrations, but by isolated fires, resulting in practically a total loss on contents, the lesson of protecting floor openings does not ap-pear to be fully learned, judging from some comparatively recent erections. It is evident in such a "fireproof" building that smoke and water can do as much damage as in any other kind of building with similar floor openings. Floors in fire-proof buildings have leaked badly, inflicting great water dam-age, and unless properly waterproofed, which it is entirely feasible to do, are probably no better than the ordinary non-waterproof wooden floor of mill constructed buildings.

Use of Sprinkler System.

Use of Sprinkler System. A sprinkler system is the best yet devised for preventing a large fire loss, and necessarily averting large smoke and water damage. But good building construction, as outlined in part, must be followed to get the best results from this system, and is followed to a great extent, or the gratifying record shown by statistics would not be attained. Five sprinkler heads opening in a fire, with a flow of twenty minutes, may be considered a satisfactory average. These sprinklers, under a pressure of forty pounds to the square inch, will discharge 3,400 imperial gallons of water in that time. With non-water-proof floors it is reasonable to expect considerable loss to damageable goods on floors below that where fire occurs. It is also a reasonable conclusion that the highest type of effi-ciency of a sprinkler system cannot be reached unless floors are waterproof and drained. (To be concluded.)

(To be concluded.) -

SOVEREIGN BANK TO BE WOUND UP.

The Sovereign Bank is to be wound up. Notice has been served to the effect on behalf of International Assets. This is merely a formal step and done in order to collect from the shareholders of the Sovereign Bank who have not subscribed which should net the salvaging concern a substantial sum of money, and in turn the assisting banks.

UNION BANK IN STRONG POSITION.

An unusually satisfactory report and statement was pre-sented to the shareholders of the Union Bank at the annual meeting held at Winnipeg. Hon. W. H. Montague, P.C., min-ister of public works for Manitoba, who was present at the meeting, described the statement as one which added ''Our pride and confidence in the bank and one which speaks in no uncertain terms of the prosperity of our people.'' Mr. Mon-tague then paid this well-deserved tribute to the management and directorate: ''To this prosperity, of course, the bank owes much; nevertheless, it owes much also to the men under whose management it has been so successfully conducted. The directors of this bank are big men, they are strong men finan-cially. They are intimately acquainted with Canadian con-ditions, they are associated actively with business and big undertakings. They are men of good judgment, of foresight and of undoubted business probity. Indeed, they are just such men as are capable of managing an institution such as the one under whose auspices we meet to-day. Their connection with the bank, but also among the general business public, upon whose good will the bank must depend largely for its success." The net profits of the bank for the year ended November 29th, amounting to \$750,095, were 1 per cent. larger than those of 1912 and equal to over 15 per cent, on the paid-up capital. This excellent showing allowed the directors to declare a bonus of 1 per cent. in addition to the regular dividend of 8 per cent. (2 per cent. quarterly). Owing to monetary conditions

This excellent showing allowed the directors to declare a bonus of 1 per cent. in addition to the regular dividend of 8 per cent. (2 per cent. quarterly). Owing to monetary conditions, prices of securities generally have declined during the year, and it was considered advisable to set aside the sum of \$125,-000, out of profits, to a special reserve account, to meet the depreciation in market value of stocks, bonds and debentures are a provision. owned by the bank as an investment, a wise provision. To the rest account \$100,000 has been added, which

now stands at \$3,400,000, and \$50,000 has been written off bank premises.

The usual contribution of \$10,000 has been made to the officers' pension fund and \$90,579.03 is carried to the new profit and loss account, as against \$75,483.76 brought forward from 1912.

Deposits have increased by \$8,952,000 and now amount to \$64.595,288.19. Current loans in Canada have increased by \$1,780,000 and amount to \$46,798,969. Loans and discounts outside of Canada total \$1,640,472 as against \$779,000 last year. The bank's total assets amount to \$80,000,000.

The bank's total assets and at the bereforded and its head-moved its head-quarters from eastern Canada to Winnipeg, is in a strong posi-tion, is well managed and is helping considerably to finance the growth of western Canada, agricultural and commercial.