

view would scarcely answer to act upon, as it would have the effect of making builders more careless than ever, but it does agree with an argument always strongly advocated by the *Fireman's Journal* of New York, that persons should be specially trained to work private fire apparatus, and that in the case of theatres and other public halls trained firemen should always be on hand.

Turning to Marine Insurance, it is not the cattle trade that is now held up as the unprofitable business, but the timber, and the risks are put down as having degenerated from business sought after by Lloyds to now being only insurable in the poorest class of Marine Insurance Companies. This change is attributed to the prevailing idea that any ship is good enough to carry timber. Like their brethren the Fire Managers, the Marine Managers are now called upon to look after matters of construction and make them a basis for rating.

To a more interesting point for investors, the staunch old companies, the Liverpool & London & Globe, The Imperial, The Phoenix, The Guardian, The London Assurance, The Fire Insurance Association, The North British & Mercantile and The Queen, will all pay their usual dividends. Don't we wish we could be stockholders in the Norwich Union Fire Office, and be favoured with their nice little dividend of £5 per share (1880-1) equal to 41.66 per cent. This does not look like coming after a disastrous year.

The "Reliance" Marine Insurance Company and the coming Company show as a result of ten months business £52,340, and having paid £14,513 in losses, a balance of £33,695 (including interest) on the right side. The "Alliance" Marine, after paying a dividend of £1 per share, carried £10,000 to the reserve. The "Maritime" have, between dividend and bonus, declared a dividend equal to 20 per cent. upon the paid-up capital.

The "British and Foreign" Marine Insurance Company are not so modest, and come out with a sum equal to 27½ per cent. for the year, and still we are told to look out for the reports of a most disastrous year. Nearly all Insurance stocks have been running down in the market, and many people ask, why? when the dividends are as regular and prompt as usual, and some inconsiderate outsiders suggest that some large speculations are on the boards among the initiated and especially newspaper and insurance men,—how absurd! as if either of these classes ever had money enough to speculate.

Speaking of manipulating stocks, there has been considerable talk here about the way the present Managers of the Hudson Bay Company are working to squeeze all the small shareholders out, and it is currently reported that they or their friends are the purchasers of all the stock that is thrown upon the market. One thing is quite certain, that is, if the property is at all well managed it will prove a good investment for those who can hold on, and there is not much fear of the ultimate failure of the present management to carry it to the proper point.

Notwithstanding one of the Insurance papers has recently given us the following repetition of an oft-told tale:

"A MISCONCEPTION.—Inventors of non-combustible paint, fireproof materials, and fire-extinguishing apparatus have, up till now, appeared to consider that Insurance Offices were equally concerned with the fire brigade in the subject. It is perhaps as well that this delusion should be dispelled. The Fire Offices are no more interested in materials being non-combustible than plumbers are in the price of lead. According to the nature of the risk, so will be the premium charged. It is the duty of municipalities, through their agents, the fire brigades, to look after all such matters as these for the common benefit. Fire Offices have nothing to do with anything of this kind, and every day more conclusively shows that private appliances and every sort of invention in this direction, in 99 cases out of an 100, are found useless at the crucial moment."

The other Insurance papers still continue to give us details of the advantages of fire-proof paints, chemical combinations for the extinguishing of fires, etc., and I must confess I am such a pigheaded Briton I still continue to take an interest in them, and fear many other Insurance men are equally stupid. I will, however, admit that the lecturer is correct, and our interested motive is not the same as the municipalities.

The latest of these special articles in the fire protection line will be of much interest in your wooden country, and I therefore give the

particulars somewhat in detail as taken from our city papers—the Asbestos Fire-proof Paint, which is the property of the United Asbestos Company, and has been severely tested as to its fire-resisting qualities, more particularly when applied to theatrical stage appliances.

The first experiment consisted in submitting to the action of fire some linen, cotton, and gauze fabrics which had been partially treated with the paint. On setting fire to them the unprotected portions quickly blazed away into tinder, the protected parts remaining intact. The next experiment consisted in placing on one part of a fierce fire some blocks of wood painted with asbestos paint, and on another part similar blocks of wood not painted. In the course of a short time the unpainted blocks were entirely consumed, while those which were painted resisted the action of the fire for a long time without showing signs of deterioration. At length, however, the fierce heat of the fire raised some blisters, which on bursting admitted the intense heat, which charred the wood, the external coating of paint, however, being greatly preserved. In the final experiments four timber erections were employed, two being about 12 ft. wide by 8 ft. deep and 10 ft. high, and representing theatrical stages with ropes, curtains, and effects. The other two were open timber sheds about 6 ft. square in plan and 8 ft. high. One of each of these two classes of structures was protected with the asbestos paint, the other two being of plain timber. Piles of shavings and other inflammable materials were placed under and upon the floor of each structure, and lights were applied to all simultaneously. The unprotected stage quickly caught fire, and in about 12 minutes it was a heap of blazing ruins. The unprotected shed, being open-sided, did not take fire so soon nor burn so rapidly, but the flames eventually got hold of it. Both the protected stage and shed resisted the effects of fire to the end most successfully, although inflammable materials, including naphtha, were occasionally employed. In the course of half an hour some portions of the fittings were found to be mouldering away, but at no time was there any outburst of flame from the protected materials. The interior of the woodwork, however, was well blistered, but the wonder is that it showed so little evidence of damage. The gauze and lighter fabrics disappeared at an early stage, but only by crumbling gradually away in an incandescent condition, and never once by bursting into flame. These results are satisfactory, and appear to demonstrate the value of the asbestos paint as a fire-resisting medium in respect of its application to theatrical stages and effects, or, in fact, to any other structures or their fittings.

The experiments were witnessed by the Lord Mayor and Lady Mayoress, Captain Shaw, and a number of other ladies and gentlemen who had been specially invited, besides the visitors at the palace generally. The asbestos in a finely divided state is mixed with a fluid material, and is used in a similar manner to other paints. Unlike them, however, it is unflammable, and not only so, but is capable of communicating this valuable attribute to such substances as it may be applied to. This applies alike to cotton fabrics and to timber or other inflammable materials used for constructive or decorative purposes. Hence its great value in connection with theatrical properties and appliances, especially those connected with the stage arrangements. Here is an opening for some of your enterprising Agency seekers. I notice, however, that some German has invented a similarly effective fluid, so they may also look up your German connections and bring the necessary influence to germinate.

Speaking of Captain Shaw reminds me of his report of fires, recently published. The most worthy tribute paid to our firemen by the *Times* in commenting upon this report goes on to say that firemen do many deeds entitling them to public recognition, and that the riband of the Garter is often awarded for less services, but from the fact that it is expected of firemen, and they daily risk their lives in saving lives and property without any thought of self. While the *Times* pays this well-deserved compliment to the men, at the same time it gives the Metropolitan Board of Works a lecture upon its want of foresight in not giving the Fire Department proper implements and needed facilities to cope with the dread enemy. When you contrast the following as an equipment for fire fighting in this great city, with the facilities in any and all of the American cities, you will agree with the justice of this lecture. Captain Shaw says the strength of the Brigade is at present: