

ping directions. I would not show samples even to employees."

A reporter of that journal hunted about the city among dealers, who told him that four or five tons of "coffee-beans" were made (of flour) every week in Philadelphia. In the sample-room of one large dealer (Mr. Wexelberger) he found, among various samples of real coffee-beans, one that was cheaper than all the rest, say fifteen cents per pound. He would not give the name of its maker, but stated that it was "an imitation," and a good one. "It is perfectly harmless, and you can mix it with any grade of coffee," said he, "to give it flavor. It is made of flour paste."

The only punishment which the law of Pennsylvania prescribes for a manufacturer who sells such stuff as coffee is contained in the following section of an Act passed in 1860:

"If any person shall * * adulterate for purposes of sale, or sell any flour, meal, or other article of food knowing the same to be adulterated, such person convicted shall be sentenced to pay a fine not exceeding \$100, or undergo an imprisonment not exceeding six months, or both or either, at the discretion of the Court."

CHEAP HOSE FOR FIRE PURPOSES.

We have recently been made aware that a very unworthy deception, and one full of danger to the very persons who are guilty of it, is frequently practised upon fire underwriters by the proprietors or managers of factories, mills, steamships, etc. We learn that a large portion of the fire hose used for "insurance purposes" is inferior, and in many instances almost worthless stuff. The prevailing thought in the minds of owners seems rather to be to make or save money than to carry out the spirit of the law. It is a common thing, we are assured, for a manufacturer of fire hose to be asked for a cheap hose for "insurance purposes." The cheapest thing that will pass the inspection of the underwriters is the article most often selected in mills, etc. In the case of public buildings, however, where the purchases are made by public officials, other considerations enter into the matter. The evil is most rife in the States, but prevails in Canada, too. In the *Boston Herald* appeared last year an article on this subject which merits reproduction. It is entitled "Testing Hose":

"The factory mutual insurance companies have recently made a careful scientific investigation into the merits of the hose in use both in factories and in the fire departments of different cities. The result of this examination has served to show that not only is there a large amount of hose in use of an inferior and almost worthless character, but that, even where great care has been taken by the manufacturers of this article, they have frequently, from want of definite knowledge, failed of attaining desirable results. In the beginning of this investigation, the expert who carried it on visited most of the fire-hose dealers in both New York and Boston. It was found that, perhaps, three-fourths of all these dealers kept low grade hose in stock, and in more than one instance the question was put whether the inquirer wanted hose for actual use in a fire department, or hose only to be put up in order to satisfy an insurance inspector. If the latter, an article could be obtained at about one-quarter of the price at which first-class fire hose was sold, and, what is more, the art of deceptive manufacture has been carried to so high a degree,

and similarity in appearance in different samples of hose is in many cases so exact, that no adequate idea of the quality of a piece of hose can be gained from mere cursory inspection. One or two samples of the cheap and poor hose which were obtained looked fully as well as other pieces costing three times as much, and the best looking sample of all was one of the most leaky. Put to the test, it was found that most of this cheap hose leaked through the pores of the fabric in a length of 150 feet a quantity of water much in excess of that delivered at the same time by the nozzle, and this after the stream had been playing fifteen minutes, thus giving the hose a fair chance to swell.

"Even when fire hose is well made, so far as strength, durability, and tightness are concerned, this investigation has developed the fact that the interior friction makes an immense amount of difference in its effectiveness. If the interior is as nearly smooth as possible, and the size is $2\frac{1}{2}$ inches, the loss by friction is reduced to a minimum. But where the hose is smaller in size, or is made, as almost all in use actually are, of rubber-lined cotton, roughened on the inside by the twill of the cloth used in calendering the rubber, the loss due to friction is very great. In this rough hose the loss of water pressure was shown to be 80 per cent. greater than in a line of hose having its interior surface as smooth as practicable. For any definite number of gallons per minute, the loss of pressure due to friction per hundred feet of hose whose diameter is $2\frac{1}{2}$ inches is 70 per cent. more than in hose of the same smoothness whose diameter is exactly $2\frac{1}{2}$ inches, and the loss in hose just two inches in diameter is three times as great as in that which is $2\frac{1}{2}$ inches."

Other articles dealing with the matter appear to throw the blame upon the manufacturer, or dealer, for this condition of things. But this is not altogether fair; because most reputable firms stand as ready to sell a fine grade as a cheap article. Their part is simply to supply the demand, and if a dealer should decline to sell a purchaser an inferior article this would not prevent its being bought elsewhere.

The mill proprietor or steamship owner who is his own insurer would never practise such a swindle upon himself as to knowingly buy too cheap and unsafe fire hose. But he gets the worthless stuff, thinking to hoodwink the fire insurance companies, who, he argues, are bound to pay his loss if a fire occurs. If he would stop to think of it, however, any fire which takes place by reason of his bad faith in such a matter *does* touch his pocket, and perceptibly if he be covered in a mutual company. It *does* cost him something, anyhow, in spite of himself, as a member of a whole community which suffers by fire waste.

The truly honest man will act loyally by his insurer, and comply with the spirit of the regulations made for the common safety. But the man of lax principles, rarely absent in any community, thinks he is doing a smart thing if he can evade the rules or beat the insurance company.

It will probably be found that, since we have not reached the stage of sinless perfection, the remedy lies in the hands of the underwriters. They too often pass, and practically endorse, the rotten, unreliable kinds of fire hose mentioned. If a brand of hose had to pass through certain tests and experiments with the underwriters before they would authorize its adoption, a solution would quickly be reached. Any reliable brand would have no difficulty in passing a satisfactory test, provided, of course, that the tests were carried out not in the spirit of competition or favoritism, to parade unduly some peculiar character-

istic of some particular brand of hose, but impartially, and with the object of demonstrating that each brand had sufficient of essential characteristics to render it trustworthy. The statement of the *Boston Herald* that hose is furnished of a quality "to satisfy an insurance inspector" is an insult to the capability or else the honesty of those officials. It is also a reflection upon as well as a menace to the insurance companies. In any case it is an evil that should be done away with.

MUNICIPAL FINANCES OF TORONTO.

Toronto, increasing in the last decade at a phenomenal pace, has come to present large figures in its municipal budget. The area of the city is described by Treasurer Coady as disproportionately large compared with the population, being nearly as extensive as that of New York, and more extensive than Chicago. This statement has been challenged by Alderman Gillespie, who objects that the bay and the marsh are included in the alleged area, and adds that at the present rate of progress the whole of the present city area would be populated in ten years as thickly as St. James' Ward. The recent expansion of area is due largely to the building of villages and towns on the outskirts of the city, which it became necessary to absorb—necessary for the city, and doubly so for the villages and towns, some of which had neither adequate water supply nor drainage.

These annexations have added largely to the local improvement debt, which is, however, secured on the property, and in any case can be collected. Local improvement loans should be repaid before the works on which they are expended are worn out. If this precaution is taken, the term of the loan is a matter of indifference. We cannot agree with Treasurer Coady that these loans should be cut down to one or two payments, as has been done in some American cities. There the result has sometimes been to ruin widows and other owners of property who had to sell in order to raise the amount of the assessment. He has a confused idea of the subject when he speaks of the purchasers of the improved lands having to pay twice, first in the enhanced value which they pay for the property, and, second, in the repayment of the local improvement loan. They pay only once, and if the charge for local improvements were extinguished in the first year, the only effect would be that the land relieved of this burthen would bring so much more. To argue otherwise is to assume that the purchasers are simpletons. It is the land that is chargeable, and if there is no danger of the land not responding to the claim, the security is absolute, and the city has no cause for uneasiness. The total amount expended on local improvements and services in the last ten years is \$4,493,781.80; of which only \$2,683,970.35 remains unpaid. Provision is made for the repayment of the whole by a sinking fund which takes the shape of annual payments.

The general debenture debt of the city is