

	1902.	1903.	1904.
January	\$15,032,800	\$13,166,350	\$21,790,200
February	21,010,500	16,090,800	90,051,000
March	12,056,600	9,907,650	11,212,150
April	13,894,600	13,549,000	23,623,000
May	14,866,000	16,366,800	15,221,400
June	10,245,350	14,684,350	10,646,700
July	10,028,000	12,838,600	11,923,200
August	7,425,550	8,428,350	9,715,200
September	9,945,000	9,939,450	14,387,650
October	9,593,300	10,409,800	12,866,200
Total, 10 months	\$124,097,700	\$125,381,350	\$221,426,700
November	10,546,650	13,589,550
December	14,616,500	17,224,700
Total for year	\$149,260,850	\$156,195,600

According to this compilation, the fires in Winnipeg during October exceeded \$800,000 in destructiveness; Brooklyn, N.Y., and Camden, N.J., contributed \$350,000 each to the fire waste; two Ohio places added \$685,000 in all, and two Tennessee cities added \$400,000 more. There were no fewer than 272 fires in October tabulated in these records, each costing more than \$10,000. It will be a wonder if the continued publication of such disastrous blazes has no effect in arousing publicists to the serious drain, \$12,000,000 to \$15,000,000 per month, means to the common wealth. And it will be a pity if the people generally cannot be made to see, by disaster after disaster of this kind, that every man, woman, and child on this continent should be more careful of fire.



ELECTRICAL FIRES.

It has been often remarked, and with truth, that the workings of electricity are not yet generally understood, and that many fires occur which are clearly traceable to either this ignorance or (in the majority of cases) to careless work on the part of those who do the wiring of houses or shops for electric light or power. Yet it is no less just to say that fires are sometimes blamed upon electricity unjustly. In the last quarterly report of the electrical bureau of the National Board just issued, William H. Merrill, Jr., the electrician, states that twenty-eight fires, losses aggregating \$619,000, reported as due to electricity, have upon further and more reliable investigation been found to have been due to other causes. Of these: A \$100,000 fire originated in a boiler plant; a \$25,000 loss was caused by a cigar stub; a \$10,000 loss is attributed to spontaneous ignition; a \$10,000 loss was due to hot cinders.

In his report of the causes of fires this official says that during the quarter ended with September last, reports of one hundred and twenty-three electrical fires, losses aggregating over \$165,000 have been received. Seven were attributed to incandescent lamps nearby.

Thirteen occurred in electric cars, in six cases due to overheated resistances.

Three fires were caused by dynamos and motors.

Two fires were due to loose connections in electrical fittings.

Seventeen pole and tree fires are reported. There were twenty-two crosses of high and low potential circuits, and ten fires have been caused by short circuit of flexible cord.

Twenty-nine fires are reported due to the ground-

ing of circuits, of which eleven were on gas pipes, the resulting arcs burning holes through the pipes and igniting the escaping gas. The same official reports twenty-four cases of damage by lightning as received.

The losses through fires started by matches are enormous, and they are increasing. Children are allowed access to matches too readily. It is said that in Germany especially, since 1890, fires in the country caused by children have increased 50 per cent.; in towns by 200 per cent. At the same time the fires in town caused by children are only one-third of the number of those which took place in the country. It is rather startling to find that last year there were 1,300 fires caused by children in town and country in Germany and Switzerland. The fire statistics of Chicago show 398 fires started from matches in eight months.



BOILER INSPECTION.

The business of boiler inspection has been carried on in Canada for the past thirty years, during the last twenty of which, at least, the largest manufacturers and steam users in the country have shown their appreciation of the benefits to be derived from it. And all classes of manufacturers and steam users are becoming more alive to the advantages to be gained from a proper inspection of their steam plant by competent and experienced men, as well as to the advisability of providing for indemnity against loss by explosion.

Although the inspection of boilers by competent and experienced men may tend to prevent accident where those in charge of steam plants co-operate with those making the inspections by bestowing ordinary care in the use of the boilers, and following such advice or instructions as may be given them by the inspectors, no inspection can prevent accidents caused by or due to gross carelessness or negligence. And with perhaps one or two exceptions the explosions which have occurred in Canada during the last eighteen months have been due to those causes. In such cases it is probable that some companies might seek, on the technical ground of culpable negligence, to avoid paying a loss and be within their legal rights in doing so. A manufacturer or steam user would naturally be careful in insuring his boilers to do so in a company which, besides being responsible, has earned a reputation not only for not taking advantage of mere legal technicalities but for prompt and liberal settlement of losses.

With regard to the inspection of boilers, such inspection is of little value unless made by a man of ability and experience. And the business is of so wide a scope that it is doubtful if even ten or more years spent as an engineer in charge of boiler plants would give a man sufficient experience and knowledge to make him an efficient inspector. To give him such efficiency as would make his services of value it would be necessary for him to have had the advantage of observation and experience gained in the employ of a company carrying on the business of boiler inspection. In such a position he would come in contact day by day with various kinds of boilers, and with different conditions in each, thus gaining a knowledge that could not possibly be acquired in any other way. The longer his employ in such a company the greater his experience and the more valuable his services. In