

SAFETY FIRST

The New Watchword of Modern Industry

The "safety first" movement embraces every branch of industry, and has, as its object, the reduction of the number of accidents among industrial workers. It may be said to consist of two parts. The first deals with the use of all kinds of safety appliances and the second, with the prevention of accidents by the education and co-operation of the employees. In Canada, the Provincial Factory Inspection Acts and Mine Regulation Acts, to a certain extent, deal with the former, but, as yet, little has been done by corporate enterprise with regard to the latter.

The movement originated with the United States Steel Corporation, and, up to the present time, it owes its effectiveness and achievements almost entirely to corporate enterprise. The co-operation of the men has also been obtained to a marked extent, chiefly by the formation of "Safety First" committees on which the men are represented and which make suggestions concerning the work.

Re-wards are given when suggestions are adopted and, in the case of the Steel Corporation, the majority of the most useful hints have come from the employees. The "safety first" policy has also been adopted by many of the Canadian and American railways and has been the means of effecting a marked diminution in the number of accidents. During eighteen months of its operation on the Chicago and Northwestern railway there has been a reduction of 51½ per cent. of the injuries. In the case of the Steel Corporation a reduction of 43 per cent. in the annual loss from accidents has been effected. Financially this represents a saving of over \$2,000,000 to the country, and, at the same time, a gain in working time to the company.

In Germany and in the United States, National Safety Bureaus and Museums have been established for giving information concerning safety appliances and for exhibiting the same.

It is pleasing to note that in July the Canadian Copper Company appointed a safety engineer in connection with a "safety first" policy for their mining and metallurgical plants. Although well trained rescue corps have been established at coal mines in Canada for the prevention of certain classes of mine accidents, this is the first decided step in the "safety first" movement among metal mines in Canada.—W. J. D.

Contrary to popular belief, forest fires seldom travel more than two or three miles an hour. Even in extreme cases, it is questionable whether they burn at a rate of more than six to ten miles an hour.

Slash Burning in British Columbia

The present efforts of the British Columbia Forest Service are in the direction of co-operating with the loggers in the burning of slash. Too much cannot be said in favour of the progressive manner in which the leading loggers and timbermen of British Columbia are co-operating with the Government for fire protection. Early this spring a number of camps were visited by representatives of the Forest Branch, the question of slash burning was discussed and circular letters were sent to all loggers asking their co-operation in slash burning. As a result about 5,000 acres were burned this spring. Representatives of the Forest Branch are now visiting the areas in question securing data on the cost and methods of burning. The experiences gained will be used to encourage further burning this fall. This process will be continued until slash burning becomes general in British Columbia as it is now in the neighboring State of Washington.—H. R. MacMillan, Chief Forester, Lands Department of British Columbia.

Forest Production in Europe Compared with Manitoba

Dominion Director of Forestry Draws Instructive Parallel

The annual rate of production of timber in a European forest is from 250 feet board measure per acre, up to as high as 1,000 feet board measure. If only a production of 100 feet board measure per annum were reached in the present Riding Mountain, Duck Mountain, and Porcupine Hills Reserves in Manitoba, the aggregate area of which is 2,415,840 acres, it would mean an annual cut of 241,584,000 feet board measure, a cut equal to the total present cut of Manitoba, Saskatchewan and Alberta, and, if the production were 200 feet board measure to the acre it would be 483,168,000 which exceeds the present cut of lumber in Nova Scotia or in New Brunswick, though this includes only a portion of the Old Province of Manitoba, and excludes all the new area added in the north.—R. H. Campbell, Dominion Director of Forestry, at Winnipeg Convention of Canadian Forestry Association.

Nova Scotia Needs Provincial Forester

Experienced Men Scarce—Forests Chiefly in Private Hands—Timber is Province's Greatest Resource

The death of professionally trained foresters in Canada is well evidenced by the fact that although the Parliament of Nova Scotia made provision at its session last winter for the appointment of a Provincial Forester, it has not yet been found possible to select a man with the desired training and experience, to fill the position.

The forests of Nova Scotia are principally in private ownership, and, to a very large extent, in the form of small holdings and farmers' woodlots. The need is for a man to educate the general public to the necessity for adopting such methods of forestry practice as are suited to the local conditions, as well as to advise the Provincial Government with regard to the proper handling of its 1,417,000 acres of Crown lands, which yield to the Provincial treasury an annual revenue of a little over \$17,000. The relatively small size of this revenue is due to the fact that only the poorest of the timber lands escaped alienation during the period, happily now past, when non-agricultural timber lands were sold outright, instead of being licensed for cutting under Provincial control. This condition is evidenced by the fact that but 5,297 acres out of over one million four hundred thousand are under license, a large percentage of the balance consisting of barrens, either natural or due to fire.

The forest survey conducted for the Province by Dr. B. E. Fernow, in 1909 and 1910, demonstrated that fully two-thirds of the area of the Province consists of non-agricultural land covered with forest growth or not fit for any other use than timber growing. It also showed that this forest resource, which furnishes not less than four to five million dollars in value of product annually, and might, with proper management, produce double this, is in danger of exhaustion within the next two decades, unless adequate measures are taken to perpetuate it. Dr. Fernow also concludes, however, that in no portion of this continent, and of the Dominion in particular, are the chances for the immediate inauguration of a definite practical forest policy so favourable as in Nova Scotia, because of the presence of an intelligent, well-distributed population.—C. L.

The forests of Norway are mostly in private or municipal ownership, the nation owning 28.5 per cent. of the total forest area. The national forests of the United States occupy only about twenty per cent. of the total forest area of the country.

Comparative Fire Losses of Different Countries in 1912

(Cities over 20,000 population).

	No. of cities reporting	Population	Per capita loss
Canada	5	957,372	\$2.88
United States	300	32,326,633	2.55
England	12	7,164,849	0.54
France	6	4,425,696	0.84
Germany	9	2,659,575	0.20
Ireland	2	699,802	0.57
Scotland	2	485,091	0.49
Italy	3	2,82,082	0.90
Russia	2	3,485,583	0.84
Austria	4	2,658,978	0.30

The above table shows that Canada's fire loss per capita is higher than in any other country from which records are available. The United States is not a bad second. The North American continent, as a whole, has an unenviable pre-eminence over Europe in this respect. Even Italy, which has the greatest loss of any of the Old World countries, has less than one-third of Canada's rate to her debit.

Unless there is loss of life, our Canadian public regards destruction by fire with altogether too much complacency. We are apt, unthinkingly, to assume that the loss is made good by the insurance companies, and to give the matter little thought unless it concerns us directly. A little reflection will show that, in the last analysis, the cost of insurance is borne by the general public. Numerous fires mean high insurance rates, and these in turn mean higher cost of production, which is paid for by

the consumer in the form of higher prices for goods. In addition to this, we must remember that fires in mills, factories, warehouses and offices, usually throw a number of people out of work, and disturb business in various ways, e. g., in the cancelling of many orders or protracted delay in their fulfillment.

We cannot, in justice, blame our Fire Departments for the present unfortunate state of affairs, nor can we say, usually, that they are ill-equipped. The causes of many fires are often obscure but, in many cases, somebody's carelessness is at fault. While the prevalence of wooden buildings is a contributory factor, many of our larger structures are not built with a due regard for safety. The enforcement of good building regulations is a measure of prevention that should not be overlooked in dealing with this problem. We must endeavour to strike at the root of the evil.