

CANNED CORN FOUND TO BE GOOD.

Although Decided Amount of Acid Sulphite is Shown— Employment of Saccharin.

During the months of March, April and May the Inland Revenue Department at Ottawa purchased 146 samples of canned corn throughout the Dominion, and all the samples were found to be in an excellent condition of preservation. Except in the far West of Canada, this article is sold pretty generally at ten cents per tin.

The collection embraces forty-six (46) different brands; but this does not imply the same number of manufacturers. Many large dealers have special brands put up for themselves by the regular canners.

There is great uniformity in the weight as well as in the character of the contents of the cans, which naturally leads to the inference that the work of preparing canned corn is carefully and systematically conducted.

No guarantee or statement of weight appears on the labels of any of these samples. The actual weight of the contents varies from about 20 to about 22 ounces, and averages practically 21 ounces, or 1 pound 5 ounces.

The chief points noted are the frequent presence of acid sulphite of lime, doubtless added for bleaching effect, and the use of a non-sugar sweetener (usually saccharin) in many samples. Decided amounts of acid sulphite have been found in 46 samples, and traces in 27 others; so that this bleaching material has certainly been employed in 73 samples, or 50 per cent. of the entire number inspected.

The question of the use of sulphurous acid (the acid present in sulphites) in foods is a very important one. That sulphurous acid is a poison is perfectly well ascertained; but that it acts deleteriously on the human system in the minute quantity present in corn has not been demonstrated. Much of the sulphite introduced as a bleaching agent is oxidized to sulphate, and thus rendered harmless. Free sulphurous acid is further got rid of in the process of cooking the corn, and it is certain that only very minute traces can remain in the article as served at the table.

The question of the employment of saccharin (or a similar article) to give sweetness to the product is another moot point. Germany has forbidden the use of saccharin, but this is evidently a matter of fiscal policy rather than a declaration of the dangerous character of the article. The United States has declared against the use of saccharin in foods, basing its action upon the report of a Board of Consulting Scientific Experts. This decision was to have come into force on July 1st, 1911; but an inhibiting decree was issued on May 23rd, postponing the operation of the decision against saccharin until July 1st, 1912.

Saccharin (or other non-sugar sweetener) is present in 25 samples, now reported; i.e., in 20 per cent. of the collection. Here, also, it is desirable that manufacturers employing saccharin in food products should be required to announce the presence of the article; since, while the evidence available is not such as to justify the condemnation of saccharin, there exists among physicians and other qualified judges a conviction that, in some cases, it is capable of doing harm.

MINE ACCIDENTS.

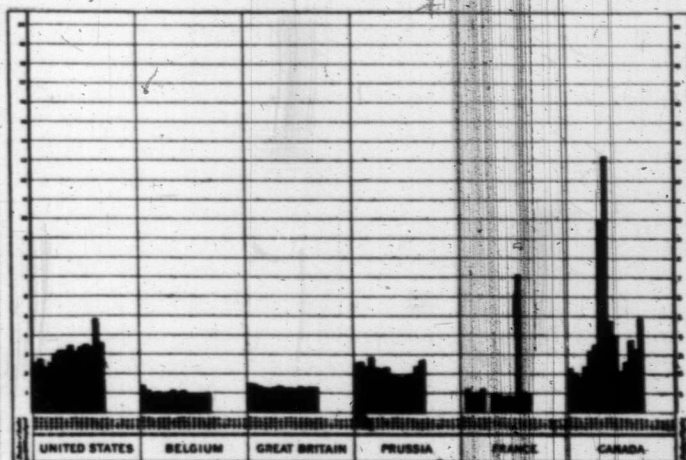
Explosives Cause a Large Number of Fatalities—Some Comparisons.

The following data and plates were abstracted from the report of the Committee on Conservation:—

This diagram shows that the death rates per 1,000 men employed in the coal mines of Canada and the United States are greater than in any other country in the world for which accurate statistics are available.

The diagram also shows that fatalities in the United States and Canada are on the increase, while Great Britain, Belgium, Prussia and France show a gradual decrease. We must interpret this in this way: (1) The danger inherent in the work can never be eliminated but could be brought down to a minimum, as indicated by the low, constant death rate in Belgium, Great Britain, and France (excepting the year 1906); (2) Coal mine explosions occur very frequently in Canada and the United States, while they are more infrequent in other countries. The causes for this loss of life are complex and neither the operators nor the miners willingly submit to them. It is not reasonable to expect that the loss of life and property can be entirely done away with; but at the same time, experience has abundantly proven

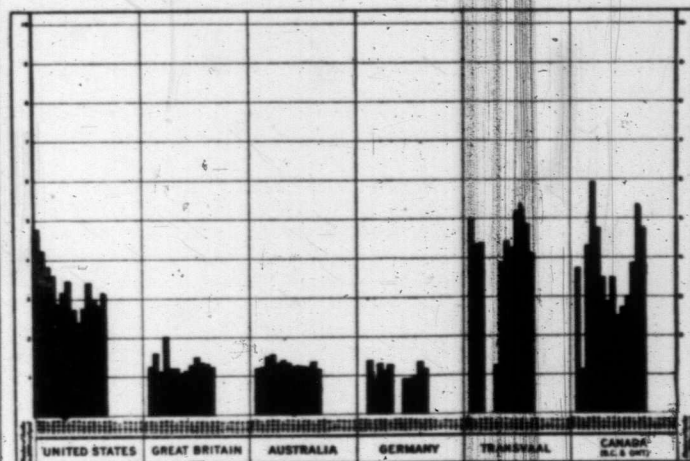
that careful and impartial investigations of such conditions will point the way to remedying of at least some of the abuses. In view of the importance of the subject to the country and the public at large, such studies should be undertaken.



COAL MINE ACCIDENTS. Number of Men Killed for Each Thousand Employed.

It is generally supposed that a great many more men are killed in coal mines than in metal mines. The following tables show that during 1900-09 the average fatality rate per thousand men employed in the coal mines of Canada was 4.79; and, for the metal mines, 3.82.

The average fatality rate in the United States during the period (1894-1908) was 3.09. This rate was considered so high that, in 1906, the American Mining Congress at Denver, Colorado, appointed a committee to draft a law for the regulation of quarrying and metalliferous mining under the criminal codes of the States, with the hope that the uniform adoption of such a law would tend to reduce the number of accidents. The report of this committee is contained in Bulletin No. 46, of the American Institute of Mining Engineers.



METAL MINE ACCIDENTS. Number of Men Killed for Each Thousand Employed.

With the exception of the Kimberley diamond mines and the Transvaal, where native and Chinese labour are employed, the fatality rate during 1900-1909, was considerably lower elsewhere than in Canada. It requires no discussion to emphasize the importance of an inquiry into the whole subject of fatal accidents in metal mines of Canada.

An analysis of the statistics respecting metal mining accidents of British Columbia for the last ten years, shows that over twenty-six per cent. of the fatalities were caused by explosives directly or indirectly. Mr. E. T. Corkill, Inspector of Mines for Ontario, states, in the Nineteenth Annual Report of the Bureau of Mines (p. 58), that, "Accidents from explosives are the main source of danger, and were, ultimately the cause of 49 per cent. of the fatalities in 1909." An Act respecting the testing and inspection of explosives has been prepared by the Mines Branch, Department of Mines, and will be presented to Parliament this session.