ment the state had to pay an average of \$2,894,280 a year to meet its liability under the dividend guarantee. During the first three years after the transfer of this road to the government, the latter had to pay \$6,753,320, \$8,875,792 and \$14,-934,484, respectively. For the year 1913 the figure was \$14,752,237."

Moreover, the service to the public was absolutely demoralized, and compensation for accidents, loss and damage rose from an average of \$400,000 under company rule to \$2,045,291 in 1911. The minister of public works criticized the state administration as a "frightful fraud," said Mr. Acworth, and the senate passed a resolution referring to "the deplorable situation of the state system, the insecurity and irregularity of its workings."

In 1897 Switzerland took over all the railways of the country. Immediately an increase in expenses was noted, due to higher wages and reduced working hours. In three years, after meeting operating expenses and the charges of the debt, there was an accumulated deficit of over \$2,500. 000. In 1900 the ton-mile rate was slightly under 3 cents a mile; in 1911 it was slightly over. At the date of the last account, so far from being reduced, the sum paid for the acquisition of the railways had risen \$270,000.

CANADIAN DES MOINES STEEL CO., LIMITED.

The Pittsburgh-Des Moines Steel Co., of Pittsburgh, Pa., and Des Moines, Iowa, has purchased the property of the Chatham Bridge Co., 298 Inches Ave., Chatham, Ont., and has incorporated the Canadian-Des Moines Steel Co., Ltd.

The Chatham plant has been enlarged and completely equipped to handle all standard types of steel structures, including mill buildings, office buildings, fire escapes and bridges. The company will make a specialty here, as in the United States, of the manufacture and erection of elevated steel tanks for municipal, industrial and railway service, and other special structures such as standpipes, storage tanks, smoke stacks, barges and coaling stations. The risers of the elevated tanks are enclosed in wooden

The risers of the elevated tanks are enclosed in wooden frost cases and the water is prevented from freezing by a steam coil in the tank or by a special heater which takes water from the base of the riser and heats it and delivers it through a separate pipe into the tank. This method of heating may utilize exhaust steam from a power plant.

Another specialty of the company in the United States has been the manufacture of wireless telegraph towers. Towers from 100 ft. to 600 ft. high have been built for the United States Government at various stations.

All steel for delivery in Canada will be fabricated at the Chatham plant, and all sales will also be handled from Chatham.

NIAGARA FALLS POWER COMPANY.

The annual report of the Niagara Falls Power Company states that all permitted means have been taken to meet the rapidly increasing demand for power. Two additional generating units in the Canadian plant have been completed and placed in service. A third unit is now in process of being added. The management points out that the rapid increase in power use in Canada has led the government considerably to reduce its permits for the exportation of Niagara power, and adds: "The export license of our Canadian company has been reduced from 75,000 horse-power to 30,000 horse-power. We have, therefore, been obliged to withdraw 45,000 horsepower from United States industries, despite insistent demands."

In Alpena, Mich., the death rate from typhoid fever ranged from 30 to 95 per hundred thousand population, each year from 1900 to November, 1915, when a liquid chlorine plant was installed. In the first twelve months of operation of the chlorinator there were only 11 cases of typhoid fever and only one death, and of these cases it was known that at least five were contracted outside of the city. Instructions to the people to boil the water had not been regarded sufficiently by all the people, and sterilization of the whole supply was found to be the only positive safeguard.

HERRON BROS. vs. CANADIAN STEWART CO.

In The Canadian Engineer of May 24, 1917, it was stated that Justice Masten had given judgment in favor of the plaintiffs in the suit of Herron Bros. vs. Canadian Stewart Co. to recover 90 per cent. of the price of piles said to be delivered to the defendant. That item was copied from To-ronto daily newspapers, there being no reason to doubt its accuracy. The Canadian Stewart Co. have subsequently accuracy. The Canadian Stewart Co. have subsequently afforded The Canadian Engineer an opportunity to read the full judgment, however, and it is desired to correct the previous item, as from the judgment it appears that no amount was awarded to Herron Bros., but that a declaration was made that the plaintiffs might make reference to a master regarding the accounts between themselves and the defendants generally and on the questions raised by the defendants' counterclaim; the master to report specially as to whether the piles or any of them which were rejected in August, September and October, 1915, by the Department of Public Works, were so rejected in consequence of defects existing at the date of delivery to the defendants or whether they were rejected in consequence of deterioration which arose after delivery

Justice Masten's judgment concludes as follows: "The defendants (the Canadian Stewart Co.) succeed on the main issue now before me and are entitled to costs down to and including the trial, but excluding any cost of the issue relative to the agreement of March 31st, 1916. If a reference is taken, further directions and costs subsequent to the trial are reserved."

Herron Bros. wrote to the Canadian Stewart Co. on November 14th, 1914, saying: "We quite realize under the conditions of our contract that we have to replace any piles that have been culled or may be culled by the government engineer or his inspectors, and we have not the slightest inclination to avoid any responsibility in the matter—all we ask is fair treatment."

In his summing up, Justice Masten says: "We have no written repudiation or limitation by the plaintiffs of the letter of November 14th, 1914, until after the catastrophe in July, 1915. But I am of the opinion that upon receipt by the defendants of the piles when unloaded at the cars, the property in the piles passed to the defendants, and the piles were then in their custody and at their risk so that they are chargeable with any subsequent deterioration, but subject always to defendants' right to return any pile and require it replaced if subsequently rejected by the government engineer in consequence of defects existing at the time of its delivery by the plaintiffs to defendants."

CANADIAN CAR AND FOUNDRY COMPANY.

The statement of the Canadian Car & Foundry Co., covering the year ending Sept. 30th, 1916, it is understood in Montreal circles, will not show any results from the Russian contracts, as at that date the business was not completed, but at the annual meeting, in July, the management will be in a position to give the shareholders full particulars as to the profits made on the Russian business. The statement to be issued covers the Canadian business and it is intimated that profits, after bond interest and depreciation, will be around \$375,000.

PROTECTING THE WATER SUPPLY.

The beneficial effect of proper supervision, and particularly of maintaining forest growth, in waterworks catchment areas, is being more fully recognized. A recent example is in the state of Pennsylvania, where the Commissioner of Forestry urged the planting of trees on those portions of their waterworks catchment areas not useful for agriculture. Favorable replies were received from one-half and, of the remainder, over 100 had no land requiring planting. To those who replied favorably, all planting facilities were afforded, including the services of a forester, and seedlings were offered at bare cost of packing and shipping, about 50 cents per 1,000 seedlings delivered. Applications were made for a total of 446,100 young trees for use on about 230 acres.—(By Leo G. Denis, in "Conservation.") es

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