

# MUNICIPAL DEPARTMENT

## LEAD IN WATER.

At the last meeting of the Yorkshire medical officers of health at Huddersfield, papers were read on the subject of lead in potable water. The first paper was read by Dr. Evans (Bradford), who pointed out the chemical action of water upon lead service-pipes, and said that if lead were dropped into carefully-distilled water and left for a time, at the bottom would be found a white precipitate, which, on examination, was found to consist of oxide of lead and hydrate of lead, generally known as oxy-hydrate of lead. The solution of this in the water was a subsequent process. This oxy-hydrate of lead, he believed, was due to the action of the oxygen in the water upon the lead pipe that might be exposed to its influence. But, it might be asked, "Where did the oxygen come from?" because the water was not decomposed. He had come to the conclusion that the oxygen was produced by being actually dissolved in the water itself, while it might also be due to the presence of oxidizing agents in the water itself, however carefully distilled. Dr. Whitelegge (West Riding County Council), who followed, said he had been watching for the last two or three years, experimentally and otherwise, the action of a number of water supplies upon lead, and the results differed in some cases from those that they were entitled to expect from the accounts of early experimenters. In many of the experiments made erosion had been completely lost sight of. He agreed that the water they had most trouble with was the acid or moorland waters, and many peaty pools were the most active of all. The action, however, was by no means limited to acid or soft waters. The power of some waters could be removed by the addition of chalk, and of others, by the addition of carbonate of soda, but these two would not act in all cases, and they had to be careful about dogmatizing on the matter. This question of erosion deserved more attention because there was no doubt that if water was left standing all night in a lead service pipe, there was lead present in poisonous and dangerous quantities in the morning, so that the first flow of water ought to be always allowed to run to waste. He had come to the conclusion that there were many more public water supplies in the West Riding which acted upon lead than was at present suspected, and as medical officers of health they ought not to assume that the water under their charge did not act upon lead, but see by experiments whether there was not lead in solution. He had, he said, mentioned two methods of preventing water acting upon lead; but there was a third, and that was by the treatment of filtration, though to his mind there was a tendency to assume that filtration could

do too much. In conclusion, he urged more co-operation amongst medical officers of health in regard to this important question. Dr. Hunter (Pudsey), who spoke as one who had gone through a lead epidemic, pointed out that the lead deposits through drinking contaminated water were so slow as to cause an endless variety of symptoms. This accounted for mistakes in diagnosis which resulted in cases of plumbism often not being recognised as such. Blindness, weakness of the procreative organs, abortion, brain disorders, liver complaints, and many other complaints of a fatal nature he had known to arise from the presence of lead in water, and at one time in Pudsey he had known the first flow of water in a morning contain as much as from half to a whole grain per gallon, and then plumbism was at its height. Dr. Swann (Batley), in his paper, pointed out that in the case of the lead poisoning in Louis Philippe's family at Claremont, the water was found to contain seven-tenths of a grain per gallon, and thirty-four per cent. of those who drank this water were affected. If this were the case, it was a matter which the public would have to face before long, whether they would go on taking water containing one-hundredth of a grain for years with impunity. He instanced a number of cases of illness which he attributed to the lead in the water, and which disappeared when iron piping was substituted for the lead piping.

## LEGAL DECISIONS AFFECTING MUNICIPALITIES.

**SCHMIDT V. TOWN OF BERLIN.**—Judgment on motion by plaintiffs to set aside findings of jury and judgment of Street, J., dismissing action for damages for injuries sustained by female plaintiff owing to the fall of the ceiling in a building in a public park in the Town of Berlin, in which she took refuge from the rain, being present in the park as a spectator of games held by musical societies, who had the leave of the defendants to use the park. The trial Judge held that there could be no liability unless knowledge were shown. Motion dismissed with costs.

**CONFEDERATION LIFE ASSOCIATION V. CITY OF TORONTO.**—Judgment by Justices Hagarty, MacLennan and Street, Toronto, on appeal by plaintiffs from judgment of Ferguson, J. (24 O. R., 643), dismissing action brought to have it declared that the assessment of the plaintiffs by the defendants in 1892 upon interest arising from investment of reserve fund, which interest was added to that fund and re-invested as part of it, was illegal, and for re-payment of taxes paid under protest upon the footing of such assessment. The County Judge of York, on appeal from the Court of Revision, had decided that the plaintiffs were liable to be assessed under sec. 34 and sec. 2, sub-sec. 10 of 55 Vic. ch. 48. Ferguson, J., held that the plaintiffs were not bound to apply the income in keeping the fund at its proper level, but might make the necessary increase with any money whatever, and the

County Judge had full jurisdiction, and the subject matter of the action was res judicata. The court agreed with the judgment of the trial Judge and dismissed the appeal with costs.

**MCVICAR V. TOWN OF PORT ARTHUR.**—Judgment of Justices Armour and Falconbridge, in the Court of Queen's Bench at Toronto, on appeal by plaintiff from judgment of Robertson, J., at trial at Port Arthur, dismissing action, which was brought to recover \$1,254, the price of certain land of plaintiff taken for the purposes of a public park in the town of Port Arthur. The action was brought against the municipal corporation of the town, who denied their liability, contending that a Board of Park Management, constituted under R. S. O., ch. 190, were liable, if there was any liability, and that the defendants had not raised money by the sale of debentures for the purpose of paying for the land. The court held that the plaintiff had no remedy against the board, for it had performed its whole duty, had purchased her land, taken the title to defendants, and given plaintiff an order upon defendants for the purchase money; but had a remedy against defendants, notwithstanding that they had not sold their park fund debentures, and plaintiff was not concerned with the method to be adopted by defendants in procuring money to pay for the land. Appeal allowed, and order made directing issue of a peremptory mandamus, returnable the first day of the next Easter sittings, commanding defendants to raise the money necessary for payment of purchase money and interest from date of order given by board, and directing amendment of statement of claim, so as to ask for such mandamus. Defendants to pay costs of litigation.

Fifty-five towns and cities in England are now, it is stated, destroying their garbage and solid refuse by burning, using an average of about 10 furnaces each for that purpose. The combustion of the material is utilised for the generation of steam, by which, amongst other things, the streets are electrically illuminated. The Livet, the latest introduced method, is said to burn on an average 33½ lbs. of rubbish per hour for each square foot of grate surface, with an evaporation of 4.08 lbs. of water for each pound of rubbish consumed.

Night inspections of water services have been made with much success in St. Paul, Minn., according to the annual report of Secretary John Caulfield of the Board of Water Commissioners. This was done by placing the shut-off rod on the stop cock of the service at the curb line, when the flow of water can be easily detected by sound. This work was carried out between midnight and morning, daily reports being made at the office of houses where water was found to be flowing. A day inspector was then sent to the premises to look for leaks. If any were found the occupant of the premises was instructed to have them repaired within a certain time. In this way 790 defective fixtures were found.