

AT A MEETING
—OF THE—
Natural History Society of Montreal,

HELD JANUARY 18, 1886,

The President, Sir William Dawson, LL.D., F.R.S., in the Chair,

THE FOLLOWING PAPER WAS READ BY

DR. J. BAKER EDWARDS, F.C.S.,

Public Analyst for the Montreal District of Inland Revenue.

Mr. President and Gentlemen :

The recent outbreak of the epidemic of small pox in our midst, and its vigorous extinction, illustrate most forcibly, firstly, that if the knowledge we possess is practically applied disease may be successfully combatted and stamied out; whereas, secondly, it is equally clear that "prevention" would have been "better than cure," and that had we applied our knowledge at the right time we should have escaped this fatal and injurious calamity. The science of hygiene is directed to the eradication of preventible disease, and should also, I think, cover preventible loss of life by accident or poison; moreover, loss of health should be regarded as next in importance to loss of life. Recent events have called my attention to the careless (if not criminal) use of arsenic sold for domestic purposes as a rat poison, by which eleven persons suffered severe sickness and had their lives endangered in this city, since which a similar case has occurred in Ottawa. Five members of a family residing there had an equally narrow escape while eating their Christmas dinner, from the same dangerous weapon, "Rough on Rats," a poison which contains some 90 per cent. of white arsenic; a box of which is sold by grocers and druggists for 15 cents, containing enough poison to cause the death of 200 persons. The law regulating the sale of poisons for the Province of Quebec requires the registration of the sale of arsenic and arsenical preparations sold as such, but this substance sold under the "nom de plume" of "Rough on Rats," being "registered trade mark," escapes this restriction. So many accidents arise from its use that some druggists refuse to keep or to sell it, and representations will be made to the Government in consequence of these accidents, which will probably restrict or prevent its sale in the future.

Now that the attention of the public has been called to this subject, I think it may

be useful to sound the alarm in respect of the extensive and dangerously increasing use of arsenic in manufactures, agriculture and domestic clothing and furnishing, as I believe the public generally is unaware of the extent to which families are unconsciously brought into contact with this poison, and thereby become liable to suffer protracted ill-health, or even fatal result. For arsenic is said to have four distinct forms of action, varying with the dose and the mode of administration, and with the susceptibility or idiosyncrasy of the patient. These forms of action are known as:—

1. The acute.
2. The sub-acute.
3. The nervous.
4. The chronic.

As some of these simulate forms of disease in inflammatory action, the real cause is often unsuspected. I propose to bring under your attention the danger arising from the handling of arsenic in

MANUFACTURES, AGRICULTURE AND DOMESTIC USES.

ARSENICAL MANUFACTURES.

In the smelting of arsenical ores, such as cobalt, nickel, iron and copper, it is well known that the arsenical fumes injuriously affect the health of the workmen so employed; and from the tall smoke stacks or giant chimneys of Glasgow, Lancashire and Cornwall, a prevailing steady wind, or current of air will often carry the smoke containing these fumes over a distance of a mile or two, destroying vegetation by the vapor of oxidized sulphur, and covering hedges, herbage and foliage with a fine white hoar frost of arsenic which proves fatal to sheep and cattle so imprudent or so famished as to partake of it. In the manufacture of shot and of glass, arsenic is an essential ingredient, and is used in large quantities, and the surrounding air is contaminated by the fumes proceeding from these furnaces.