

triaceton-alcamine; benzal-diacetonamine; amido-trimethyl-oxybutyro-nitrile resulting from the action of prussic acid on diacetonamine; and amido-dimethyl-acetic acid, obtained by the oxidation of diacetonamine; while a paper published a few months since describes a new acetone base containing sulphur. Prof. Heintz's activity was manifested up to within a few months of his death. In addition to the paper just alluded to his contributions to chemical literature during the year just closed include articles on triaceton-diamine, on the existence of acetone, on two compounds of urea with chloride of gold, and on diethidene lactamic acid.

Prof. Heintz was the recipient in 1862 of the honorary degree of M.D. from the University of Königsberg in recognition of his services to physiological chemistry. In 1876 he was elected an honorary member of the London Chemical Society. T. H. N.

### SMOKE ABATEMENT

A MEETING was held in the Egyptian Hall at the Mansion House on Friday last, under the presidency of the Lord Mayor, to consider the best means of remedying the evils arising from the present smoky condition of the atmosphere of London. Among those present were Mr. G. J. Shaw-Lefevre, M.P. (First Commissioner of Works), Mr. W. Spottiswoode (President of the Royal Society), Dean Stanley, Sir U. Kay-Shuttleworth, Dr. Farquharson, M.P., Mr. Ernest Hart (Chairman of the joint committee of the Health and Kyrle Societies), Col. Festing, R.E., Dr. Alfred Carpenter, and Prof. Chandler Roberts.

Mr. Ernest Hart, in explaining the objects of this movement, said that some practical advance had already been made. It was not pretended that fogs could be prevented; but since smoke added opaquesness and corrosive and other deleterious qualities to London fogs, much might be done to diminish the discomforts and evils we suffered from this cause. Having described the objects proposed to be attained by an exhibition of apparatus and smokeless fuel, he gave the results of some calculations in order to bring home to the minds of his hearers the enormous waste of money involved in the present arrangements for heating houses.

Mr. Spottiswoode stated that a committee of the Royal Society had been appointed to investigate the facts connected with the formation of fog; but while we looked to science to tell us what was wanted to improve our atmosphere, we looked to the legislature to carry out those effectual preventive measures which all hoped would some day or other be devised. Nevertheless, without the strenuous aid and co-operation of every householder the best legislation could be turned to but little account. In conclusion he moved, "That it is the opinion of this meeting that the smoky condition of the atmosphere of London injuriously affects the health and happiness of the community, besides destroying public buildings, deteriorating perishable fabrics, and entailing in various ways unnecessary expenditure."

Sir Frederick Pollock seconded the resolution, and urged that much might be done if every one who had an old fire-grate to replace would provide one of an approved and really more economical pattern.

Mr. G. J. Shaw-Lefevre moved, "That this meeting is further of opinion that the injurious effects of fog are largely due to the quantities of smoke given forth from the chimneys of furnaces, manufactories, and steam-vessels, as well as dwelling-houses, and that the smoke in the metropolis might, without any considerable difficulty, be greatly lessened by the better enforcement of the existing law, by the introduction of amended legislation, and by the general use in all descriptions of premises, including dwelling-places, of proper smoke-preventing apparatus, improved household stoves and grates, or of

smokeless fuel." As the head of the public department responsible for the public works of this great metropolis, he need hardly assure those present that he was deeply impressed with the importance of the subject under discussion. The importance of pure water was often insisted upon, but surely pure air was even more important. Yet, for years past, it must be admitted that the air of London had been getting worse, and fogs were denser and of longer duration than formerly, even invading the summer months. There could be no doubt that forty or fifty years ago London was famous for its roses; now it was impossible to get the rose to blossom here, and it was all but impossible to get any of the conifers to grow in the darkness of the London atmosphere. He should, however, deprecate any hasty attempts to legislate. Much might be done by the extension of the existing Acts relating to the abatement of the nuisance from smoke, and he thought Government might be rightly called upon to give some additional facilities for the purpose of enforcing those Acts. It was monstrous that in these days so many factories should not be consuming their own smoke, and, since there was a great economy in the use of appliances which prevented this waste of fuel, there was no hardship in enforcing the Act. When they came to the question of the domestic consumption, he thought it would not be wise to attempt to interfere by any legislation. They must rather trust to persuasion and example and inducements. His own hope was in the introduction of some other heat-giving apparatus. Doubtless the substitution of anthracite for north-country coal would be an advantage; but he did not see the means of persuading the enormous mass of householders to use the smokeless coal unless it could be distinctly proved to them that there would be economy in the change. He would suggest that it might be worth while for the gas companies to turn their attention to the production of gas for heating purposes. He could not help thinking that the time was not very far distant when not only our streets and public buildings, but also our private houses, would be lighted by electricity. There were non-luminous gases suitable for heating purposes, which might be made at a much less cost than the gas at present supplied for lighting. From a friend he had learnt that water-gas, which could be made at a low rate, was used in many towns in America for heating purposes. Every one could do something to help forward this good work of abating smoke, and for himself he would promise to use his efforts in the department with which he was connected to diminish the nuisance from smoke. When he mentioned that some 20,000 tons of coal were purchased annually by the department, the meeting would appreciate the extent to which the public offices added to the smoke in the atmosphere of the metropolis. He hoped the time would not be far distant when they would have restored the atmosphere of London to its early purity, the blossom to our London roses, and the bloom to the cheeks of our London children.

Dr. Alfred Carpenter urged that this was a question particularly affecting the middle class and the poor, the waste of fuel at present being deplorable. He moved "That this meeting approves the proposal of the joint Committee of the National Health and Kyrle Societies to hold an exhibition, by permission of Her Majesty's Commissioners for the Exhibition of 1851 and the other authorities, in buildings erected for the International Exhibition of 1862, of the various smokeless coals and other fuels, and of various appliances applicable to household and manufacturing purposes for the reduction of smoke, and to test the same, in order to demonstrate for public information the means practically available to secure that object. This meeting is of opinion that the investigation and testing should precede any application for amendment of the existing Smoke Acts, or for new legislation in regard to smoke from dwelling-houses."