the general discussion that followed, Sir Arthur Hill gave an account of the system of exchanges in operation at Kew. The first exchange was with Italy fifteen years ago and exchanges have since been made with Germany, France, Belgium, Holland, Denmark, Norway, Sweden, United States, Canada, South Africa, Australia and New Zealand.

In the Section of Nomenclature, under the chairmanship of Dozent A. Thorsrud, of Norway, it was obvious that there was a real desire to arrive at practical rules for the horticulturists, and there seemed to be very general agreement. Unlike the proceedings at the International Botanical Congresses, however, the voting on the nomenclature proposals is restricted to the members of the Permanent Committee in closed session. There was a very general feeling that some standard list of names of horticultural plants should be published, and Miss M. L. Green (Kew) gave an account of the work of the Special Committee on the Correct Names of Economic Plants (including Horticultural Plants), appointed at the International Botanical Congress, Amsterdam, 1935. This Committee will publish a list of the correct names of economic plants in accordance with the International Rules, which list will remain in force for ten years even if any of those names are in the meantime found to be not in accordance with the Rules. This will be an important factor in stabilising plant nomenclature.

On Monday, August 15, Colonel F. R. Durham, secretary of the Royal Horticultural Society, gave a special report on the object and purpose of exhibitions and trials of new varieties in regard to the advancement of horticultural breeding, and showed what a stimulating effect exhibitions and trials upon plant breeding have on modern horticulture.

In addition to the more serious work of the Congress, a very varied programme of excursions and entertainments was arranged and, as the large attendances showed, was much appreciated by the members. Visits were paid to various biological institutions such as the Reich Biological Institute for Agriculture and Forestry, the Experiment and Research Institute for Horticulture, and the Botanic Garden, Dahlem. Botanists attending the Congress were very glad to have the pleasure of renewing their associations with the Dahlem Herbarium and Gardens, where they were given a hearty welcome by the director, Prof. L. Diels, and his staff. Many motor-coach trips were arranged, and visits were paid to well-known nurseries such as that of Herr L. Späth at Retzin and of Herr K. Förster at Bornim.

Another feature of special interest was the exhibition entitled "500 years of German Gardening" organized by the Reich Ministry of Food and Agriculture. This was held in the Prussian State Library and illustrated the history of German garden flowers, fruits and vegetables, and the development of the style of German gardens from 1400 to 1900. Interesting illustrations from ancient books, manuscripts and prints were on view, also drawings, engravings and oil paintings. The whole exhibit was extremely well planned and repaid careful study.

No account of the Congress would be complete without a word of admiration for the decorations at the Congress Buildings—there was a wealth of beautiful flowers to be seen everywhere. The names of the various halls were indications of the decorations within, such as the Tropical Hall, the Rose Hall, the Larkspur Hall, and the Fruit Hall. The thanks and congratulations of all members are due to the organizers of this very successful congress.

Institution of Gas Engineers

THE seventy-fifth annual meeting of the Institution of Gas Engineers was held in London on May 31–June 3 when Sir David Milne Watson received the Birmingham Medal in recognition of his encouragement of research bearing on the manufacture and utilization of gas*. In his presidential address, Mr. H. C. Smith, of Tottenham, stated that the gas industry is under statutory obligation, subject to penalties, to supply gas of declared calorific value, prescribed purity and minimum pressure, whereas those who sell its raw material—coal—are encouraged by statute to raise the price of coal without any obligation as to its quality. He said that more than one million tons of useless material, which might have been removed from the coal at the collieries, had in 1937 been delivered to the gas works, to the detriment of both the carbonizer and the user of coke. He suggested that legislation concerning the coal industry should not stop at machinery for raising prices, but should impose obligations to supply coal of prescribed and regular quality.

Mr. E. V. Evans, discussing the processing of coal, said that the gas industry might be at the start of a new and greater era. The industry carbonizes coal primarily for the production of gas, and the by-products —especially coke—are subsidized at the expense of the gas. For this reason, together with legal restrictions, the gas must be sold at prices which make it a luxury fuel. Before it can take its place as a staple fuel, gas must be freed from this burden, as is the case where it is a by-product of the manufacture of metallurgical coke. The ideal, it has long been recognized, would be to convert coal into a gaseous fuel of high calorific value. Experience where natural gas and cheap coke oven gas are available shows that the advantages of such a fuel lead to an enormous expansion in its use. During the last three years, the Joint Research Committee of the Institution of Gas Engineers and the University of Leeds has been examining the gasification of coal under pressure. It has been established that coal can be hydrogenated to yield gas and some liquid fuel without combustible residue under quite moderate pressures such as are current in steam boiler practice. The results leave no doubt that the complete gasification of the ash-free coal to form a high-grade gas is technically feasible and it remains to establish its economic future.

A paper by Dr. F. J. Eaton on the uses of coke revealed the rapid expansion in the consumption of gas coke since scientific study had shown what merits were to be found in this somewhat neglected smokeless fuel and how they could be turned to advantage.

H. J. H.

* Institution of Gas Engineers. 75th Annual General Meeting, London, 31st May to 3rd June 1938. No. 177. Official Programme. Pp. 16. No. 178. Annual Reports and Accounts of the Council of the Institution of Gas Engineers. Pp. 44. No. 179. Presidential Address. By H. C. Smith. Pp. 24. No. 180. Considerations upon the Processing of Coal. By E. V. Evans. Pp. 40. (Institution of Gas Engineers.) 2s.