THE GERMAN ADULTERATION BILL.

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ON another page of THE ANALYST the readers will find a translation of a draft of a Bill now under discussion before the German Parliament, to regulate the sale of food, articles of consumption, toys, wall papers, colours, cooking utensils, and paraffin oil. I do not propose to make any lengthy remarks on the Bill, since its clauses speak for themselves, and since other members of the Society are much more competent than I am myself to criticise the various provisions touched by it.

Most remarkable, to my mind, is the absolute want of any regulations in it concerning the analysis of the samples; whilst the purchase of samples, definition of adulteration, and punishment of offenders, are all spoken of at length, the word analyst does not even occur in the measure. The "Superior Court of Administration" will appoint the officers under the Act, but it is not even stipulated which shall be the "Court of Administration."

Far more interesting to us than the various clauses of the Bill itself are the voluminous papers accompanying the draft, which supply the reasons for and justify the several clauses. From a statistical table it appears that, in the year 1878, no less than 231,478 samples of food, drink, and other articles coming under the law, were analysed in the German Empire; of these 3,508 were adulterated (1.5 per cent.), 1,538 articles of food were decomposed and unfit for consumption, and 3,332 convictions of offenders were obtained. Of this enormous number of samples, milk stands first with 152,043 samples; beer, 17,628; sausages and meat, 21,380; flour and bread, 17,202; condiments, 1,168; wine, 842; sugar and confectionery, 508.

In Munich, 90,693 samples were analysed (87 convictions); Berlin, 75,867 (889 convictions); Darmstadt, 17,701 (190 convictions); Karlsruhe, 12,346 (160 convictions); Mannheim, 7,807; Heidelberg, 5,800; the remainder in 78 different towns and districts.

In explanation of the very large number of samples, it is to be stated that several towns, such as Berlin and Munich, have included in their returns all examinations made by market inspectors. The greater proportion of adulterated samples was, however, detected by accurate analytical examination.

A commission, including such well-known names as Drs. Hoffman, Fresenius, Knapp, and Varrentrapp, report at length on the various practices of adulteration. Among many modes of adulteration well known to all analysts, it will be learned with some interest that, instead of alum or sulphate of copper, sulphate of zinc has been used and detected in bread and flour, and that ground gypsum is regularly exported from Rotterdam into Germany, under the designation, "Artificial Flour," for adulterating flour. Quantities of gypsum up to 30 per cent. have actually been discovered in such

adulterated flour, and sulphate of baryta up to 20 per cent. Maccaroni were found coloured with picric acid, brewing sugar contaminated with arsenic, milk mixed with soapsuds, beer with narcotin, coffee coloured with chromate of lead. But all these adulterations were observed only in single or very rare instances.

The laws and regulations concerning the sale of food of no less than 48 countries and cities are added to the report, English legislation being very fully treated of. The work done by the Society of Public Analysts is fully acknowledged, and the success of the "Sale of Food and Drugs Act," so far as that Act is a success, to a great extent attributed to the labours of the Society. The information afforded to Dr. Rottenburgh is worked into a general criticism of the "Sale of Food and Drugs Act," and has in several items been made use of in the drawing up of the Bill.