

tion of druggist's vessels. The Friedrich Wilhelm Institute is represented by family and travelling medicine chests of the 18th century, old amputating knives, etc. There is a goodly collection of old medical and surgical works, with interesting illustrations, the instruments represented being chiefly remarkable for their gruesome appearance. Then there are crosses inscribed with prayers against the plague, the dangers of war, etc.; vaccination and inoculation medals, some bearing the portrait of Edward Jenner, with the date 1749, and cholera medals, the latter, of course, belonging to the present century. On one of these, bearing the date 1832, there is an inscription to the effect that it is to be worn on the bare skin, near the region of the stomach. There is a rich collection of portrait medals in gold, silver, and bronze of distinguished German, English, French, Italian, and Scandinavian doctors from the 16th to the 19th centuries. The Exhibition will be open till August 15th, and we hope to be able to give some account of its more strictly scientific part in an early issue.

SECOND GENERAL MEETING.

The second general meeting took place on Wednesday, August 6th, at 11 A.M., in the Circus Kenz' Sir James Paget being in the chair.

Infection and Immunity.—Professor Bouchard, of Paris, opened the meeting with an address on the mechanism of infection and immunity. With regard to the former, Professor Bouchard pointed out that the means of defence of the body against the attacks of bacteria were the phagocytes, and the bactericide condition of the body juices or solid organs. Experiments with sudden refrigeration, carried out on guineapigs, showed that the blood of the animals did not thus become susceptible to the pneumonic virus. Slow refrigeration, however, considerably diminished the power of resistance of the body against bacteria. From these and other experiments it was clear that the juices of the body alone, in their normal conditions, had to carry on the struggle against the pathogenic microbes surrounding the body, and that they could resist them. A sudden weakening of the healthy organism, however, rendered this less resistant to bacterial attacks. By the term "bactericide condition" the lecturer did not mean the dynamic or vital property of the blood, but the chemical property of the normal healthy blood, which rendered it unsuitable as a medium for the existence of the bacteria. Speaking of immunity, Professor Bouchard pointed out that by this term he understood the condition of the body after previous non-fatal infection, in which it was at the same time protected against the pathogenic influences of the micro-organisms. This condition was either produced by an accidental infection with a favourable course or by an infection performed, to a certain extent, with intent, that is, inoculation. He further discussed the manner in which bacteria acted on the body, and distinguished eight different ways in which they did so. He did not enter into the details of each of these ways, but laid much stress on the chemical influences whereby the products of the micro-organisms affected the vasomotor centre in such a way that the exit of the nutritive juices from the blood vessels became impossible. By experiments with bacteric products of assimilation they had succeeded in preventing, over the spot of inoculation, the typical symptoms of inflammation, that is, the exit of white blood corpuscles, redness, swelling, etc. This led to the conclusion that the blood vessels had become impermeable. When the whole vascular

system was affected in such a way there was naturally a severe disturbance of nutrition and derangement of the organism. The favourable effect of inoculation might be explained by the fact that the chemical influences of the bacteric products of assimilation became altered, so that they no longer opposed diapedesis. As to natural immunity, it could not be referred to a bactericide condition of the blood, but only to the greater faculty of resistance and the greater functional activity of the vasomotor centre in certain animals. These properties permitted the continuance of the nutritive activity of the capillary system. Evidence of this statement was furnished by the fact that the power of resistance in such refractory animals was destroyed by the introduction of a substance which hindered diapedesis.

Puberty and Disease in School Children.—Prof. Axel Key, of Stockholm, next read a paper on the development of puberty and its relation to the morbid appearances of school children, which was listened to most attentively, and by none more so than by Dr. v. Gossler, the Prussian Minister of Public Instruction. The lecturer began with a report on the measurements and weights of school children which had been taken in Sweden and Denmark during the last ten years. The results obtained in 15,000 boys and 3,000 girls, showed that in the 7th and 8th years the increase in stature and weight was very marked in boys; afterwards, however, a retardation occurred, which lasted to the 14th year, in which a rapid increase of growth again occurred. This increase lasted up to the 17th year: it was most marked in the 15th year; the least increase in the preceding period was in the 10th year. The increase of growth was first in stature, and it was not until later that it also showed itself in the weight. The increase in weight lasted up to the 17th year, when the bodily development was complete. In girls the case was somewhat different. The decrease in growth after the 8th year was not so marked as in boys; in the 12th year it had already given place to a great increase in height. The increase in weight followed that of height, but exceeded it in the 14th year. In the 17th and 18th years the increase in height was but slight; the increase of weight, however, fell nearly to zero in the 20th year of age. At that period growth seemed to be completed. It was strange, said Prof. Axel Key, that the boy, in his whole growth, should exceed the girl up to the 11th year, while from that date up to the 16th year of age he was exceeded by the girl, and afterwards his growth again surpassed that of the girl. These conditions—with slight deviations—proved to be uniform throughout the whole of Sweden. Observations made in America and Italy showed that in girls puberty came on at least a year sooner in these countries. In children of the poorer classes the height and weight were inferior to those of the well-to-do classes, as was proved by the examinations of 4,000 poor school boys at Stockholm. This difference seemed to be less pronounced in America and England. The decrease of growth before puberty lasted longer in poor children than in those of well-to-do people, but once begun the development of puberty was rapid and was completed in the same year as in the children of the well-to-do classes. As to the fact that the growth in height preceded that of the weight the lecturer considered it as a quite uniform one, and particularly if the experiments as to the growth of the children in the different seasons, as ascertained by Wrestling, of Sweden, and Malling-Hausen, of Copenhagen, were taken into account. With regard to the sanitary