

HEALTH MATTERS.

THE BLOOD IN PHTHISIS AND CANCER. — Dr. G. Neubert has examined the blood in twenty-four cases of phthisis at various stages, says *The Lancet*, and found that in nine the number of corpuscles was normal, in three it was above, and in twelve more or less below, the average. On the whole, there was an average diminution of about eight per cent. The increase noted in three cases might perhaps be attributed to profuse night-sweats. The hæmoglobin showed a reduction to seventy-three per cent in the females, and eighty-five per cent in the males. There was no notable change in the number of leucocytes, but it was observed that multi-nucleated forms predominated. In five cases of cancer of the œsophagus, and four of cancer of the stomach, there was an invariable diminution in the number of red corpuscles, and also notably of hæmoglobin. It is inferred that the hæmoglobin, being the more "sensitive" element of red corpuscles, is more profoundly affected in cachexia than the stroma of the corpuscles. A distinction was made between the anæmic and marasmic types of cancer, the latter exhibiting an average reduction of thirteen per cent of corpuscles, while the hæmoglobin fell to eighty-seven per cent of the normal; the former showing a corpuscular reduction of thirty-five per cent, while the hæmoglobin was as much as seventy per cent.

THE "NORMAL" DIET. — According to Dr. G. Munro Smith, in the *Bristol Medico-Chirurgical Journal*, the daily destructive metabolism, which is the great criterion of work done, does not vary much among different occupations. Premising that he does not consider moderate over-eating injurious, he finds that very many men eat considerably more than the most liberal tables: it is not an uncommon thing for an average-sized man on very moderate work to eat twenty-five or twenty-seven ounces of chemically dry food a day. Women eat much less than men, after making allowances for differences in weight and work. Where a man eats nineteen ounces, a woman of the same weight and of active habits eats only fourteen or fifteen ounces. On a diet from which all meat is excluded, he has found that twelve to thirteen ounces *per diem* will comfortably feed a hard-working man. A moderate amount of stimulants appears to increase the average: moderately free drinking diminishes it. A diet consisting of one part of nitrogenous to seven or eight non-nitrogenous is a good combination: it is greatly exceeded on the nitrogenous side by the majority of men and women, especially the former. A diet of twelve to fourteen ounces of chemically dry food, digestible, with the ingredients in proper proportion, is sufficient to keep in good health an average-sized man on moderate work. The majority of people (in England) eat literally twice as much as this.

TOLERANCE OF OPERATIONS ON THE LIVER. — Professor Ponfick of Breslau has been for a number of years engaged in making experiments in regard to the relation between the liver and certain anomalies in the formation of blood. In the course of these investigations he has made some striking discoveries, which, although not directly connected with the object of his investigations, are yet of great importance. One of the most curious results of his experiments has been the discovery that the animal functions may be conducted without serious disturbance even after the loss of a very large portion of so important an organ as the liver, says *The Medical and Surgical Reporter* of Oct. 12, 1889. In some cases, operating with strict antisepsis, he succeeded in removing as much as three-fourths of the liver, either at several sittings or in one single operation; and the animals upon which he experimented did not lose their lives, nor seem to be seriously disturbed in their health. In hundreds of experiments, in which he removed sometimes one lobe and sometimes another, the animals remained, in a considerable number of cases, perfectly well for months, and even for as long as a year. Clinical experience has already taught us that the whole of the liver is not absolutely essential to health, because large portions of this organ have been practically destroyed — as in the case of echinococcus and profound fatty infiltration — without any disturbance of the general functions of the body. But this, as Ponfick says, is hardly to be compared with the sudden and immediate removal of large portions of an organ which is supposed to be so important to health. The

explanation of this curious fact seems to be that the liver has a wonderful power of reproduction. Ponfick found, that, within a few days after the removal of portions of the liver, the work of its reproduction began, and that it proceeded with great rapidity to completion. In certain cases he found that within a period of a few weeks as much was reproduced as had been removed; that is, twice as much as had been left behind. These investigations have an interest altogether outside of that which is absolutely scientific, because it cannot fail to influence the development of abdominal surgery, if it is understood that large portions of the liver may be removed without serious danger to life.

LEPROSY HERE AND ELSEWHERE. — Dr. Hansen, the Norwegian discoverer of the bacillus of leprosy, came over to this country a while ago to trace the history of leper immigrants who had settled in Wisconsin, Minnesota, and Dakota. Of 160 original leper immigrants, he was able to find only 13; a few more may be living, but nearly 147 are dead. Of all their descendants, so far as great-grandchildren, not one has become a leper. In this country the disease does not increase, nor does it appear to be hereditary. The failure to spread here is thought to be due to the improved conditions of living which the immigrants are able to secure on this side of the ocean. The *Sanitary Inspector*, in speaking of a leper lately found at Brentwood, Eng., says that many persons believe that leprosy has entirely disappeared from England, yet there has probably never been a year in which a score of lepers could not be produced, and that, though England used to have lepers enough, leprosy has become a very rare disease since English homes and English roads have been kept clean.

PHTHISIS IN HIGH ALTITUDES. — From a report in the *Lancet* by Dr. L. Schrötter on the distribution of phthisis in Switzerland, it would seem that the inhabitants even of high altitudes are by no means so free from phthisis as we are wont to suppose. The tables of deaths for the eleven years 1876–86 show that phthisis is endemic in every part of Switzerland, not a single district being free from it. On the whole, the deaths from this cause are fewer in the high than in the low lying districts, but it cannot be said that the mortality from this cause is inversely proportionate to the altitude. Wherever there is a large industrial population, the phthisis mortality is considerable. Industrial populations always suffer much more than agricultural populations where the altitude is the same.

NOTES AND NEWS.

THE San Francisco *Bulletin* says that the California beet-sugar experiment is a success. Last year 2,000 acres were planted, and yielded 13,500 tons of sugar-beets, from which were extracted 1,650 tons of sugar. This was done at the Watsonville factory, which ran forty-seven days. The beets brought an average of five dollars a ton, and the farmers feel satisfied that they can raise them at a profit. They have guaranteed to greatly increase the acreage this year, and the output will probably be more than doubled.

— The United States consul at Bahia describes a substance called turfa, lately discovered in Brazil, at a place called Maratium, about sixty miles south of Bahia. Turfa has been found to contain the main ingredient now extracted from it by distillation, viz., petroleum, or, as it is locally called, "brazolina" or "petroleo nacional," besides paraffine, gasoline, and lubricating-oils resulting from the process. A company was formed, and the concession purchased. Machinery has been imported from England, and from four hundred to four hundred and fifty hands are employed at the mines. The company, it is stated, will manufacture fifty tons of candles per month; and if the enterprise should prove a success, it will probably interfere with the trade in kerosene, candles, and lubricating-oils which the United States now has with Brazil and with the countries south of Brazil.

— The thirty-seventh annual meeting of the American Society of Civil Engineers was held at the society's rooms in this city last week, beginning on the 15th. The society now has a total membership of 1,335. The Norman medal was awarded to Mr. Theodore Cooper, for a paper on American railroad-bridges; and the