typhoid vaccination, and leprosy. Other medical sections were those of pharmacological science, medical electricity, odontology, chemistry, hygiene, and public medicine.

The geographical section, of which M. Dupont was president, had on its programme the subjects of the Panama Canal, the Channel Tunnel, and many matters of more local interest.

The French Association may well be congratulated on its Havre meeting.

IMPERIAL CANCER RESEARCH FUND

THE annual meeting of the general committee of the Imperial Cancer Research Fund was held on July 21, the Duke of Bedford, K.G., president, in the chair. Among those present were Sir R. Douglas Powell, Sir Thomas Barlow, Sir Rickman Godlee, Sir William Church, Sir W. Watson Cheyne, Sir John Tweedy, and Prof. Sims Woodhead.

Dr. Bashford's report stated that during the past year fewer claims to the possession of a cure for cancer had been brought to the notice of the fund. In no instance was the information of a kind to necessitate further inquiry. None of the alleged remedies were new, all having been brought to notice in one form or another in earlier years.

The Two Categories of Transplanted Tumours.

As a result of the work carried out in the laboratory, it was becoming more and more generally recognised that transplanted tumours fell into two main categories, namely, a very small group which grew progressively because they did not produce resistance to their own growth, and a large group in which the tumours tended to disappear spontaneously in varying proportions because of the resistance to their growth, which was induced in the body as a result of their presence; indeed, in extreme cases, every animal, as it were, cured itself. The claims to cure cancer in mice had without exception been made by investigators who had not recognised the latter fact with regard to the propagation of tumours, and who had been dealing with the latter class of tumours not supplied from the laboratory of the fund. The Imperial Cancer Research Laboratories had distributed widely a tumour-strain of the former class which grew progressively in all animals and produced metastases, and these were the tumours which ought to be employed for the purposes of therapeutic experiments; up to date no successful results had been obtained with them. It seemed well to emphasise these facts because most, if not all, the transplantable tumours in the possession of other investigators did not fully reproduce the natural features of cancer, and a large number of proprietary preparations, many of them metallic and possibly dangerous, were now on the market as cures for cancer, on the basis of these untrustworthy laboratory experiments.

Resistance to Growth.

Further investigations had been conducted into the nature of the resistance which, as previously reported, can be induced in animals so as to render them refractory to the growth of transplanted tumours. Advances of a purely technical character have permitted it to be demonstrated that resistant animals possess the power of destroying cancer-cells introduced into the blood-stream. The question of resistance to growth is of great etiological importance, because it has been shown that when tumours previously capable only of transitory growth acquire the power of progressive growth and of dissemination, the result is due to the loss of power to produce hindrance to their own growth.

Abderhalden's Serum Test.

Abderhalden claimed that the serum of cancer patients had the power of breaking down or digesting tumour tissue in a test-tube in a way that normal serum did not, and by a special technique a colour-reaction might be obtained which was held to be diagnostic of cancer. The technique had been improved, and it was now possible to avoid contradictory results. It appeared that reliance ought not to be placed on this reaction either in pregnancy or in the diagnosis of cancer.

Increase of Cancer in Certain Situations.

It was quite justifiable to make such a crude statement as that the number of deaths assigned to cancer had increased in 1911 for females to 1088 a million living in 1911, as compared with 500 in 1860; and for males to 891 from 200 during the same period. It was also justifiable to express these facts in another way (also crudely), namely, that of women attaining the age of thirty-five, 1 in 12 was recorded as dying of cancer in 1889, but 1 in 7·4 in 1911; and of men 1 in 21 in 1889, but 1 in 9·7 in 1911. But these figures ought not to be set out, as they still were, before the public without any qualification, and interpreted forthwith as a demonstration of the reality of the increase of cancer. The increase in the number of deaths was not uniform for the different parts of the body, and for some parts, notably the uterus, an actual fall was persistently evident since 1902.

Heredity.

There were still no trustworthy data available as regards cancer in man. In mice hereditary predisposition had been shown to exist, sufficient to double the incidence of cancer in female mice in the ancestry of which cancer had occurred not further back than the grandmother, as compared with animals in which the cancerous ancestry was more remote.

Cancer Areas and Cancer Houses.

The question of cancer houses had been allowed to stand over until experiment and the improvement in the collection and tabulation of statistics had advanced to a point which made it possible to discuss the subject on the basis of positive knowledge. With the awakening of interest in the study of cancer in animals, the belief in cancer houses was naturally transferred to "cancer cages," largely on the basis of statements made by breeders. The extensive experience of the Royal Prussian Institute for Experimental Therapeutics agreed with the even larger experience of the Imperial Cancer Research Fund under laboratory conditions. Cancer cages, in the sense that animals housed in them became infected, were a myth. Contact with animals with natural or inoculated cancer did not increase the liability to the development of the disease.

A considerable part of the report was devoted to the discussion of the question of "cancer houses." Five of the best known instances of cancer houses had been inquired into and the places visited. Inquiries had also been instituted into a sixth area, which had also been visited. The investigations into "cancer houses" and "cancer areas" accorded with what had been established by experiments on animals. "Cancer houses" were as much a myth as were "cancer cages."