

652; 1952). The amount of disease induced in the host plants was found to be the best means of assessing the extent and persistence of the pathogen in the soil. Also, as the experimental results indicate, this organism depends essentially on parasitic nutrition for its propagation and persistence in the soil. *R. solani* disappeared from the soil in some 120 days when various cereals were planted at intervals of 21 days, but was abundant in soils planted with potatoes, beans and peas. The fungus was not suppressed by heavy inoculations with *Trichoderma lignorum* unless the latter was added with corn meal.

#### A Dominant Sex-linked Mutation in the House Mouse

ALTHOUGH evidence for sex-linked mutations in the mouse has been presented by several investigators, only one of these reports involved a morphological mutation. The results of matings of a new dominant mutation in the mouse, Bent-tail, described by E. D. Garber, suggest that this mutation may be sex-linked (*Science*, 116, No. 3004; 1952). The expression of Bent-tail, in the female, may range from a single almost imperceptible kink to a series of well-defined kinks. In some extreme cases, the tail is bent back on itself and may be pressed against the body. In females, the tail is usually normal in length; in males, however, the tail is usually half the normal length, and the kinks are generally restricted to the end of the tail. Except for the kinks and shortness, the tail is apparently normal. A single Bent-tail male was found in a litter of seven mice resulting from a mating between a normal female of the Namru strain and a bald male. This male, mated with a normal sib, produced Bent-tail females and normal males, suggesting that the mutation was dominant and apparently sex-linked. Two females could not be positively identified as Bent-tail because of the poorly defined single kink. These two females when outcrossed to normal Namru males yielded Bent-tail and normal mice. When the original normal female was outcrossed to a normal Namru male, only normal mice resulted. Finally, the original Bent-tail male was outcrossed to three normal Namru females. These matings also indicated that the mutation was sex-linked and dominant.

#### A Stain for some Fatty Materials

IN a paper in the *Museums Journal* (November 1952), Mr. R. H. Harris, curator in the Museum of Zoology and Comparative Anatomy, University College, London, describes a demonstration which he undertook to define the supporting tissue in the manus of an Indian elephant. A median, sagittal section was prepared so that the cushion of fat and elastic tissue upon which the animal rests its weight could be clearly shown. The dissection was carried out in the fresh state, and, as there was no sharp contrast between the fat, elastic tissue and muscle fibres, it was decided to use a fat stain. This was prepared by adding to a solution composed of equal parts of acetone and 70 per cent alcohol sufficient Sudan III powdered stain to cause saturation. The solution was filtered and kept in a tightly stoppered bottle. Full experimental details are given by Mr. Harris; but the main point is that ultimately only the fat was stained, leaving all other tissues sharply defined. The method renders an anatomical feature in elephants visible for study and research, and the finished dissection provides a valuable museum exhibit.

#### Hydroelectric Schemes in North Wales

UNDER the title "Hydro-electricity in North Wales", the North Wales (Hydro-Electricity) Protection Committee has issued a further illustrated pamphlet (pp. 8+4 pl.; from the Committee, 93a Scotland Road, Liverpool 3; 1952; 6d.), dealing with the six new schemes now proposed for North Wales and involving the areas Nant Ffrancon, Snowden, Upper Conway, Vale of Festiniog, Mawddach, and Plynlimon or Rheidol. The schemes affect the whole of the mountain country from Bangor to Aberystwyth, with the exception of Cader Idris. The Bill to be promoted by the British Electricity Authority is to cover the Plynlimon scheme, the largest, and the Vale of Festiniog. The pamphlet recapitulates the arguments against the schemes and appeals for financial support for preparing petitions against the Bills; the legal expenses involved in fighting such so-called 'private' Bills are heavy, and several thousand pounds is still required for this purpose.

#### International Meetings in Physics

A NUMBER of international meetings in various fields of physics will be held this year, and these will include the following: meeting of the International Optical Commission, at Madrid, April 20-21 (Prof. J. M. Otero, Serrano 121, Madrid); International Congress of Acoustics, in Holland (The Hague, Delft, Eindhoven and Hilversum), June 16-24 (C. W. Kosten, Mijnbouwplein 11, Delft); colloquium on cosmic rays, organized by the University of Toulouse, at Bagnères-de-Bigorre, July 5-11 (Prof. L. Leprince-Ringuet, 17 rue Descartes, Paris 5<sup>e</sup>); symposium on fundamental theoretical physics and executive meeting of the International Union of Pure and Applied Physics, in Japan (Tokyo and Kyoto), September 15-23, under the presidency of Dr. H. Yukawa (Prof. P. Fleury, Institut d'Optique, 3 Boulevard Pasteur, Paris 15<sup>e</sup>). Further information can be obtained from the persons named in brackets.

#### Frank B. Jewett Fellowship Awards

THE American Telephone and Telegraph Co. has awarded five Frank B. Jewett fellowships to the following: M. Fixman, a graduate of Washington University, St. Louis, for research at the Massachusetts Institute of Technology on theoretical and experimental aspects of the behaviour of high-polymer molecules in solution, including the statistical mechanics of transport processes particularly involving macromolecules; Dr. H. Helson, a graduate of Harvard University, for the continuation of his work in the Mathematics Department, Yale University, on a clarification of the relations between the Wiener and Kolmogoroff prediction theory and certain questions in analytical function theory which are fundamental to cybernetics and information theory; R. G. Newton, a graduate of the University of Berlin and of Harvard University, for research on the connexion between the quantum field theories and detailed behaviour of nuclei and their effect on surrounding electrons; Dr. R. S. Pierce, a graduate of the California Institute of Technology, for further research on the principles of automatons, clarifying the mathematical fundamentals of how machines can perform near-human operations; and Dr. D. B. Ray, a graduate of Harvard University, for the continuation of his study, up to now conducted at Cornell University, on the essentials of random processes and prediction of events involving atoms and electrons.