

photosynthetic process, are driven by separate pigments.

Dr. M. Demerec, Director of the Department of Genetics, retired from the Institution on June 30, 1960. He joined the Institution in 1923, and throughout his lifelong association with it his researches have been directed towards elucidating the structure, the function, and the mutability of genes. Further studies in this field during the year carried out with *Salmonella typhimurium* and hybrids obtained by crossing *S. typhimurium* with *Escherichia coli* have been reported.

A notable achievement in the Department of Embryology during the year is the successful visualisation of circulation in the maternal placenta by the techniques of radioangiography.

The experiments were conducted on pregnant Rhesus monkeys. The technique lies in injecting into the femoral artery 15 ml. of radio-paque dye under 90 pounds pressure (the high injection pressure is an essential part of the technique), and following the course of the dye through the various arteries, and finally through the intervillous space of the placenta. The visual displaying of the circulation uses a combination of image intensifier and television system.

It is needless to mention that the Year-Books of the Carnegie Institution, Washington, containing the latest progress in the different fields of fundamental investigations undertaken by the Institution, are valuable additions to current scientific literature.

### PLANNED FOREST DEVELOPMENT FOR INDIA

**D**R. J. A. von MONROY, the FAO expert on forest industries, held recently an assignment in India to help design an overall plan for the integrated development of India's forests and forest industries. According to him forest resources in India, as they stand now, are not enough to meet the requirements of the country's present population of 420 million, let alone the estimated population of 600 million for 1975. India is famous for the production of valuable slow-growing timbers. However, present conditions demand a vast increase in the supply of wood, which can only be met by planting fast-growing species. Dr. von Monroy's proposal is to select about 1% of India's forest area, in the most productive parts of the country, and to plant 150,000 acres per year over the next ten years with trees which mature within 15 years. This development, coupled with intensive management arrived at raising the forest yield per acre, should double the present production of industrial wood. Dr. von Monroy's other recommendations include the development of the Himalayan coniferous forests, expanded use of low grade timber, and the use of building boards instead of solid timber.

The second phase of the programme is about the forest industries. It is estimated that for paper alone the demand will jump from the present 450,000 tons to 2.1 million tons by 1975. This can only be met by a dramatic increase in the number of pulp and paper mills, as well as fibreboard and wood particle board plants, coupled with increased use of hardwoods and adoption of modern processing techniques, such as the high-yield system. A pre-investment survey must be carried out now to determine exactly where these industries shall be located.

It is also expected that fuelwood requirements, mostly for cooking, will jump to the astounding peak of 100 million tons by 1975. A large fuelwood plantation programme has been planned, but this must be supplemented by making better use of supplies, such as popularizing more efficient simple kitchen stoves through community development projects. A very important item in India is the supply of minor forest products, such as tanning material, resin, medicinal plants and oils. Much of this demand can be met by creating small-scale cottage industries, which will, of course, greatly help rural development.—(FAO News.)

### A CORRECTION

**O**UR attention has been drawn to the following statement which appeared in *Current Science*, 1956, Vol. 25, p. 283. "Dr. Ramdas began his career as a Palit Research Scholar from 1923-26 under Sir C. V. Raman and discovered the phenomenon of the 'Scattering of Light by Pure Liquid and Sound Surface'." On a reference to the original publications of the time, we

find that the statement should have read: Dr. Ramdas began his career as a Palit Research Scholar from 1923-26 under Sir C. V. Raman and collaborated with Professor Raman in his fundamental researches on the scattering of light by liquid and solid surfaces. We regret the publication of the earlier erroneous report.