same type of change. The anaphase bridges recorded by Mello Sampayo[3] in hybrids between two *japonica* types of rice brings out this complexity. The Japanese varieties are however characterised by a group of morphological and physiological characters and are normally interfertile.

The part played by cytoplasmic factor was observed recently at Central Rice Research Institute, Cuttack.[4] This was detected by differences in extent of grain setting in reciprocal crosses. In order to find out if gametic fertility is affected by the cytoplasm, the crosses, *Rikuu* 132 (Japan) × *Adt.* 18 (Madras) and *Gimbozu* (Japan) × T. 1145 (Orissa) and their reciprocals were studied for pollen sterility The data of pollen sterility as shown by iodine mounts are as follows:

Cross combination	Mean %	S.E.
Rikuu 132 × *Adt.* 18	84	1·7
Adt. 18 × *Rikuu* 132	69	1·6
Gimbozu × *T.* 1145	50	1·3
T. 1145 × *Gimbozu*	28	2·6

The differences between reciprocal crosses when grown under identical conditions is statistically significant and therefore shows that the cytoplasm as transmitted by the female parent has an effect on pollen development in the F_1 generation.

We are indebted to Dr. N. Parthasarathy for facilities and to the FAO of the United Nations Organisation for financing the scheme.

1. Cua, L. D., *Rep. Kihara Inst. Biol. Res.*, 1952, No. 5, 42.
2. Kuan Jen Hsu, *Indian J. Genet. and Pl. Br.*, 1945, **5**. 51.
3. Mello Sampayo, T., *Genetia Iberica*, 1952, **4**, 43.
4. Ghose, R. L. M., Misro, B. and Sastri, S. V. S. (Under publication).

LADY TATA SCHOLARSHIPS AND GRANTS FOR 1954-55

THE Trustees of the Lady Tata Memorial Trust announce on the death anniversary of Lady Meherbai Dorabji Tata, 18th June 1954, the awards of Scholarships and Grants for the year 1954-55.

The International Awards of varying amounts totalling (£ 6,275) for research in diseases of the blood with special reference to Leucaemias are made to Doctors J. F. Kieler (Denmark), Astrid Fagraeus and Bo Thorell (jointly) (Sweden), R. Rask-Nielsen (Denmark), R. Robineaux (France), J Nordmann (France), N. A. Stenderup and F. Kissmeyer-Nielsen (on a joint research project) (Denmark), J. Ringsted (Denmark), J. Rygaard (Denmark), M Seligmann (France), G Negroni (of Italy, working in England), and Dr. A. Sreenivasan (Bombay).

Indian Scholarships of Rs. 250 per month each for one year for scientific investigations having a bearing on the alleviation of human suffering from disease are awarded to Dr (Mrs) M. Aikat (Gwalior), Miss K. S. Laul (Bombay), Mr. P R J. Gangadharam (Bangalore), Mr. N. V Bhingi (Bombay), Dr R S Grewal (Lucknow), Mr. N A. Nityananda Rao (Bangalore), and Mr T. K. Sundaram (Madras).

SOLAR BATTERY

THE Bell Telephone Laboratories have announced the invention of an electric battery which uses sunlight as its fuel, and which develops enough power to run toys or transmit voices for short distances over wires. An efficiency of 6 per cent. is claimed for the battery in converting sunlight directly into electricity, which compares favourably with the efficiency of steam and petrol engines in contrast with other photo-electric devices, which have a rating of no more than 1 per cent.

The experimental solar battery uses strips of wafer-thin silicon about the size of a common razor blade. These strips are highly sensitive to light, and can be linked together electrically and deliver power from the sun at the rate of 50 watts per square yard of surface.

The solar battery, along with other silicon devices demonstrated at the laboratories, would seem to be an offshoot of a broad study of silicon and its possible application in modern electronics. An important feature of these silicon devices is that they can operate at much higher temperatures than other crystal rectifiers now in use.