perceptible. The tree presents a most elegant appearance. The incautious botanist who, allured by the deceptive appearance, should approach to pluck the blossoms, would rue his attempt. The trunk and branches are hollow like those of the trumpet tree (*Cecropia*) and provided between space and space with partitions, which answer to the position of the leaves on the outside. These hollows are inhabited by a light brownish ant, about two- to three-tenths of an inch long, which inflict the most painful bites, causing swelling and itching for several days. If they find themselves captured, they attack and kill one another like scorpions. The Aramah Indians call the tree 'Jacuna' and the ant 'Jacuna Sae'.

The British Association and Steam Navigation

AT the Liverpool meeting of the British Association in 1837, a grant was placed at the disposal of a committee to investigate the speed and fuel consumption of steam vessels, and the Peninsula Steam Navigation Company had liberally offered to co-operate with the committee in trials to be made in their ship the *Tagus*. With the view of making the necessary records, Dr. Lardner had made an apparatus which would enable the steam engine to make a journal of its own proceedings.

According to the April 1838 number of *The Civil Engineer and Architect's Journal*, his apparatus was intended to record the pressure of steam in the boiler, and in the engine, the vacuum in the condenser, the revolutions of the paddlewheel, the amount of water in the boiler and its density. The records were made by coloured pencils on a paper driven by clockwork, the apparatus being enclosed in a case 3½ ft. high and 3 ft. in diameter which was to be locked at the beginning of a voyage and was not to be opened until the ship returned to port. The coal consumed was to be ascertained from the amount on board at the beginning and the end of the voyage.

University Events

CAMBRIDGE.—J. A. G. de Courcy has been appointed superintendent of the Engineering Workshops.

The Managers of the Frank Edward Elmore Fund have appointed Dr. J. C. Sinclair to a studentship.

J. R. Robinson, of Emmanuel College, has been awarded the Allen scholarship.

LEEDS.—C. L. Bird has been appointed lecturer in dyeing.

LIVERPOOL.—Dr. Rupert Montgomery Gordon, director of the Sir Alfred Lewis Jones Research Laboratory, Freetown, Sierra Leone, has been appointed to the Dutton Memorial chair of entomology in succession to Prof. W. S. Patton, who resigned in December last.

LONDON.—Dr. F. R. Winton has been appointed, as from October 1, 1938, to the University chair of pharmacology tenable at University College. Since 1933 he has been reader in physiology in the University of Cambridge.

Dr. R. V. Christie has been appointed as from April 1 to the University chair of medicine tenable at St. Bartholomew's Hospital Medical College. Since 1935 he has been assistant director of the Medical Unit and assistant physician at the London Hospital.

Societies and Academies

Paris

Academy of Sciences, January 31 (*C.R.*, **206**, 289–384).

ERNEST ESCLANGON: Clocks indicating simultaneously mean solar time and sidereal time. It is possible to have a master clock, showing mean solar time, connected by a train of wheels to another clock showing sidereal time. The choice of the number of teeth on the connecting wheel work is worked out and a number of examples given showing the gear train and the corresponding error in seconds after 100 years starting with 1938.

GABRIEL BERTRAND and GEORGES BROOKS: The composition of fibres, shells and other lignified plant tissues. Studies from the point of view of the chemical or biological utilization of these plant products.

DIMITRI RIABOUCHINSKY: Comparison of the method of the variables $(\varphi, \psi_1, \psi_2, t)$ with those of the variables of Euler and of Lagrange.

MARCEL GODCHOT and MLLE. GERMAINE CAUQUIL: The molecular transpositions obtained in the dehydration of the 1 methyl-3-cyclohexylisopropyl pinacones.

EDOUARD CHATTON: The plurality of the species of *Orchitosoma* and on their nature: the spermatogenetic evolution of Metazoa taking place in the parasite state in the ovary of Copepods.

JULES DUBOURDIEU: Remarks relating to the theory of assurance accidents.

WOLFGANG DŒBLIN: First elements of a systematic study of the ensemble of powers of a law of probability.

KARL MENGER: A simplified axiomatic of the algebra of projective geometry.

GUSTAVE CHOQUET: Study of certain networks of routes.

ANDRÉ LICHNEROWICZ: Regular space-time exteriors.

LOUIS SACKMANN: The comparative study of the *portance* of a wing of an aeroplane and of the régime of flow on the extrados.

JEAN MANDEL: The equilibria through plane parallel sections of plastic media at the limit of flow, and, in particular, of earth and of the ductile metals.

JEAN LOUIS DESTOUCHES: Centre of gravity and relations of uncertainty.

MLLE. NATALIE REIN: A form of differential equations of the limited elliptical problem.

ANDRÉ DANJON: The determination of the elements of the orbits of visual double stars.

JOSEPH MIKULAŠ MOHR: The dependence of the observed radial velocity and of the term K of stars of type B with distance.

DIKRAN G. DERVICHIAN and MAURICE JOLY: Homogeneous transformation points in monomolecular layers.

CONSTANTIN SALCEANU and CORNELIU ISTRATY: The determination of the positions of resonance in tubes by means of a galvanometric deviation. An application of the resonance method of Bungetzianu, in which the telephone method of defining the resonance positions is replaced by a galvanometer method. Results obtained with water, alcohol, acetone and carbon tetrachloride are given graphically.

RAYMOND ZOUCKERMANN: The variations of the explosive potential of a discharge tube without internal electrodes, under the influence of ultra-violet or visible light. The curve showing the relation