

papers. When my husband and I were writing the life of Pasteur for the "Century Science Series" (1898), we asked permission to reprint it in our volume. The ingenious way in which some of the many activities of Pasteur are woven together in so delicate and graceful a manner will, I venture to think, make a special appeal to readers of NATURE. Pasteur was buried in the Pasteur Institute in Paris, hence the last lines.

"No cypress-shadowed churchyard nor the gloom  
Of haunted cloisters, doth immortalise  
The dust of him whose patience proved more wise  
To save than Death to slay. The busy loom  
Glancing with silk, the teeming herd, the bloom  
Of purpling vineyards, and the grateful eyes  
Of souls reprieved at Death's most dread assize,  
Shall make eternal gladness round his tomb.  
Not 'mid the dead should he be laid asleep  
Who wagheth still with Death triumphant strife,  
Who sowed the good that centuries shall reap  
And took the terror from the healer's knife.  
Defender of the living, he shall keep  
His slumber in the arsenal of life."

G. C. FRANKLAND.

Loch Awe,  
Argyll.  
March 4.

### Chinese Planetary Observations

I HAVE just discovered a rather interesting record in the Lü Li Chih ("Memoir on the Musical Tones and the Calendar"), which is an important section of the official history of the Former Han dynasty (first century of the Christian era).

Two series of figures are given, in relation to the five visible planets, termed respectively "Year Number" and "Observed-Mean-Rule", as follows:

	Year number	Obs. mean rule	Ratio
Jupiter	1728	1,583	1.091
Venus	3456	2,161	1.599
Saturn	4320	4,175	1.035
Mars	13824	6,469	2.135
Mercury	9216	29,041	0.317

It will be seen that the ratio of the two numbers is exactly (to the third decimal) equal to the synodic period, in years.

In Ssu-ma Ch'ien's "Historic Memoirs", written about one hundred years earlier, the planetary periods are very inaccurate.

Does this substantiate borrowing from Greece or Babylon during this period, in which Chinese contacts with the West were considerable?

HERBERT CHATLEY.

c/o Whingpoo Conservancy Board,  
Shanghai.  
Jan. 20.

### Points from Foregoing Letters

Prof. D. Skobel'tzyn and E. Stepanowa have measured the relative number, and the amount of the deflection of the paths of fast electrons scattered by passage through nitrogen gas. They find deflections of more than 30°, in greater numbers than predicted by theory; in their view the scattering cannot be explained by the extranuclear electrical field of the nitrogen atom or by collision with other electrons, and they suggest that it may be connected with an effect due to the nucleus of the atom.

The formation of a radioactive mercury isotope of mass 205, when mercury is bombarded by neutrons, is reported by Prof. E. B. Andersen. The author further states that a radioactive isotope of sulphur can be isolated from carbon tetrachloride which has been irradiated with neutrons.

Copper-beryllium alloys (containing more than one per cent of beryllium) are not oxidised at high temperatures. From experiments on electron diffraction, I. Iitaka and S. Miyake conclude that this non-oxidising property is due to the formation of a thin film of beryllium oxide. In the case of nickel chrome alloy (80-20), also non-oxidisable, the authors have observed, on heating, a film of nickel chromate.

By comparing the fine structure of certain spectrographic bands obtained with phosphorus deuteride, with the corresponding structure of the spectrum of phosphorus hydride, Dr. R. W. B. Pearse and M. Ishaque find that the change produced by the substitution of the heavy in place of the light hydrogen in the molecule may be explained by the mutual interaction of the individual electron spins, and the interaction of the resultant electron spin with the rotating molecule.

The rate at which insulin combined with protamine (a simple protein, incoagulable by heat) is absorbed

into the lymphatic system has been investigated by H. K. Beecher and Prof. A. Krogh, by introducing small quantities of the compound into a Sandison-Clark chamber inserted in rabbits' ears. The authors have followed the distribution of particles of insulin proteinate stained with methylene blue in the lymphatics and in the tissue spaces.

A species of slave-making ants belonging to the genus *Strongylognathus*, hitherto unknown in Britain, has been observed in south-east Dorset by Capt. C. Diver.

Dr. I. V. Newman recently claimed that he had found in *Acacia* flowers evidence supporting the theory that carpels are modified leaves. Prof. J. McLean Thompson states that the lateral position described by Newman is not a new fact and does not necessarily indicate foliar origin. He reaffirms his views that free carpels are emergences of a spore-bearing axis, the apex of which is arrested.

A. Lepape and G. Colange direct attention to the fact that their results, showing a greater amount of helium in the stratosphere (which results were recently quoted by Paneth and Glückauf) are only approximate and refer to the combined helium and neon from mixed samples from several near altitudes. They now point out that the percentage of helium plus neon is more constant at the earth's surface than in the stratosphere and suggest that the helium of the upper regions may come from the sun.

E. A. Guggenheim deduces a new formula for calculating the electric moment of dissolved molecules. The author applies his formula to experimental data obtained by previous investigators and compares the results with those computed by means of the Clausius-Mosotti formula, which he considers less accurate.