and its *p*H adjusted between 7·0 and 7·2. The solution was then saturated with sodium chloride and left overnight inside a refrigerator at 6° C. The next morning the precipitate formed was separated by centrifuging and washed once with saturated sodium chloride. This precipitate was found to contain 8–10 per cent of the total hæmolytic activity and only 2–2·5 per cent of the total neurotoxic activity of the original venom. Thus the percentage ratio of hæmolysin to neurotoxin has a much higher value, 4 : 1, in the precipitate we obtained, than it had in the original venom. It is evident, therefore, that the hæmolytic and neurotoxic activities of *Crotalus-t-terrificus* venom are due to two different substances. Hence the crystalline substance which Slotta and Fraenkel-Conrat obtained was not a pure protein, but a mixture of at least two different proteins. In this connexion, it may be mentioned that we have succeeded in separating the hæmolysin completely from the neurotoxin of *Naja Naja* venom as reported elsewhere[3].

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Calcutta. Jan. 18.

[1] Slotta, K. H., and Fraenkel-Conrat, H., NATURE, 142, 213 (1938).
[2] Slotta, K. H., and Fraenkel-Conrat, H., *Ber. deutsch. chem. Ges.*, 11, 1623 (1938).
[3] Ghosh, B. N., and De, S. S., *Science and Culture*, 585 (May 1937).

The Prehensile Paw of the Giant Panda

There is little to be said in answer to Prof. Wood Jones's remarks on this subject[1]; but I can assure him I overlooked neither of the facts he thinks I did. I gave him the credit for the interesting discovery, previously only an inference from what was known of the skeleton of the foot, that the sesamoid bone in question has a special muscular arrangement whereby it can be moved.

Possibly I should feel gratified by his confirmation of my statement that the grasping method of the panda's fore paw is strictly comparable to that effected by closing the tips of the first and second fingers on the ball of the thumb in the human hand. It is unfortunate that in his first account he conveyed the idea that the method is equivalent to that exercised by the entire thumb. Without reservation and without fear of admonition from anyone acquainted with the undissected paw of this animal, I adhere to my assertion that his description was misleading; and I venture to predict that wisdom will forbid its repetition in his final treatise on the subject.

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Feb. 20.

[1] NATURE, 143, 246 (1939).

Points from Foregoing Letters

Having obtained the vacuum spark spectrum of iron, Dr. I. S. Bowen and Dr. B. Edlén have determined the wave-lengths of the forbidden transitions between the terms of the $3d^2$ levels, and find that these lines correspond to the lines of hitherto unknown origin in the spectrum of Nova RR Pictoris (1925).

Assuming the existence of inhomogeneities and thermal currents in the earth's core, Dr. W. M. Elsasser calculates that temperature differences so low as 10° would give rise to currents whose irregular distribution may result in a small one-sided excess that would account for the earth's magnetic field.

Dr. G. Gamow and Dr. E. Teller, in reply to Sir James Jeans's criticism of their hypothesis of the origin of nebulæ, point out that most of the objections raised would not affect the order of magnitude of their calculated result. An important difference in the value for the mean density of matter arises, however, if one accepts Sir James's assumption that the so-called clusters of nebulæ are stable, rather than that the nebulæ themselves are in a state of equilibrium, as supposed by the authors.

The usefulness of synthetic lithium fluoride crystals as optical material owing to its transparency to wave-lengths from 1200 A. up to 20,000 A., is stressed by B. K. Johnson, who states that he has designed a lens system combining lithium fluoride and fused quartz, which should give complete achromatism for a spectral range between 5461 A. and 2749 A.

A simple method for the micro-separation of the components in a mixture by capillary adsorption on filter paper is described by Prof. W. G. Brown.

Diethylstilbœstrol, like œstradiolbenzoate and œstrone, increases the fat and calcium concentration in the blood of the cock, and eventually causes the loss of the comb, according to Prof. B. Zondek and L. Marx.

Prof. A. Gilman and Prof. L. Goodman claim that their explanation of the anæmia produced in rabbits by administration of posterior pituitary extract, being due to the fall in the osmotic pressure of the blood, are more likely to be correct than the results obtained by Dodds and collaborators based upon the "water balance" of rabbits.

Experiments reported by Dr. R. H. Common indicate that when phytin alone is added to the diet of pullets they fail to utilize it completely. Calcium phosphate, if added, increases the proportion of phytin hydrolysed to a greater extent than does calcium carbonate.

In the absence of oxygen, the katabolism of carbohydrate by both rabbit and human cerebral cortex is increased. Dr. K. C. Dixon suggests that the convulsions and cerebral irritation which follow rise in intracranial pressure and other processes producing cerebral anæmia, are due to this increased metabolism of the brain cells associated with stimulation of the nerve centres.

Dr. B. N. Ghosh and S. S. De describe a method for the partial separation of the hæmolysin in the venom of *Crotalus-t-terrificus* from the accompanying neurotoxin and point out that the crystalline substance prepared by Slotta and Fraenkel-Conrat, possessing both those properties, is probably a mixture.