

must be carefully chosen, if we are to avoid failure. Fruitless vain punctures are disappointing for the patient. In this connexion I think one cannot over-emphasize the importance of a preliminary radiograph. When the radiograph shows a very contracted lung, with marked displacement of the heart and mediastinal structures, laterally towards the diseased side, we know there must be strong adhesions. I think it is waste of time to attempt to induce pneumothorax in such cases. Either we shall fail entirely, or if we do succeed in introducing a little gas, the pneumothorax will be too partial to be effective. In other advanced cases, which appear suitable for the treatment, a good radiograph and careful physical examination should make it impossible to puncture through such grossly diseased areas that adhesions are certain to be encountered. Granted, therefore, that we choose an apparently free locality for the site of puncture, if the manometer does not work as soon as the parietal pleura is pierced, we are, in spite of our precautions, over adhesions, and probably in the lung itself. It is our duty to make a fresh puncture and not introduce gas "on spec," so to speak.

I am not sure whether the needle suggested by Dr. Lister is identical with the one I use. I am uncertain, from descriptions I have seen, whether his is sharp or blunt.—I am, etc.,

HUGH H. CARLETON, M.D. Oxon.,

Davos Platz, Jan. 22nd.

#### MEDICAL CERTIFICATION IN IRELAND.

SIR,—Let me cordially endorse your observations re medical certification in Ireland. It is a scandal and a fraud on the poor. The fault is clearly with the Insurance Commission, who seem to think that the best plan for working the Act is to spit in the face of the medical profession.

Owing to the imbecile action of the Commissioners in refusing to pay fees to ordinary practitioners for certificates for cases of tuberculosis, the operation of sanatorium benefit is a ghastly failure. I can claim to speak with some authority on the working of the Act since I have been chairman of the Dublin Insurance Committee since the Act came into operation, and hence hear most of the complaints about the operation of the Act in this city.—am, etc.,

Dublin, March 8th.

J. C. McWALTER, M.D., LL.D.

#### CAT-LIKE PUPILS IN MAN.

SIR,—The author of the note on the above must have momentarily let his fancy stray to other eyes when he wrote the last sentence, for the keratometer surely does not show that cats' eyes—or any other eyes, for the matter of that—are not astigmatic. It merely shows the presence or absence of corneal astigmatism, and does not take into account any lenticular astigmatism.

To settle the question about the stenopaeic pupil in cats the following experiment is necessary: The corneal curvature should be examined with a keratometer and then a careful retinoscopy done under an efficient cycloplegic.—I am, etc.,

Upham, Southampton, March 6th.

JAMES C. HOYLE, M.D.

#### COLOUR VISION THEORIES.

SIR,—In my last letter I gave the trichromatic theory. It is curious how many persons seem quite unable to understand this theory. This is due to the confusion of red light, or sensation arising from red light, or light in which red predominates, with the fundamental red sensation process, and to the use of impure colours (pigments) instead of pure spectral light. Every explanation, therefore, in which red light, or sensation caused by red light, or light in which red predominates, can be substituted for red must be excluded, and does not support the theory. Mr. Percival's ingenious explanation comes under this category. He should read the papers by Bidwell, in the *Proceedings of the Royal Society*, on the Benham top. Those physicists who state that the trichromatic theory is not a theory but a fact simply do not understand the theory. Bidwell was not one of those, and he states that there is no direct evidence of the primary assumption of the theory. He also shows and states that the phenomena of intermittent light cannot be explained on this theory.

He shows that the red lines on the top do not appear when the light illuminating the top does not contain a red constituent. On the theory a simple yellow and a mixture of red and green light matching it are physiologically identical, but when the top is illuminated by the yellow formed by the mixed lights the red lines appear, but not with the simple yellow. On the trichromatic theory the sensation excited by spectral yellow contains a much larger percentage of the red sensation process than white light. Therefore the red lines should be more marked when spectral yellow light is used than with white light. If Mr. Percival will read Bidwell's papers and interpret the facts in the light of my explanation, he will find that they agree with the explanation as minutely as the facts of colour-blindness do.—I am, etc.,

London, N.W., March 13th.

F. W. EDRIDGE-GREEN.

SIR,—I have read with great interest the correspondence that has taken place in your columns on the work of Dr. Edridge-Green and on colour vision theories in general, and having had occasion, in preparing my *Psychology*, to pass certain of these theories in review, I beg to offer a few remarks.

Let me say a word of cordial agreement with those who have suggested that some signal honour should be conferred on Dr. Edridge-Green in recognition of his researches. His work is not only original in its conception, but in regard to the ingenuity shown in his experiments and the mental energy manifested in a long series of papers showing new findings year by year, it is evident that all this proceeds from a love of science for its own sake, and a devotion to its service. Dr. Edridge-Green is that rare and valuable being—a truly scientific character.

The Young-Helmholtz theory is excellent as an invention, but it fails at the essential point, namely, that of demonstrating the sets of three nerve fibrillae which vibrate respectively to the impulses of the fundamental waves. That Young's hypothesis was not convincing is shown by the fact that Hering, playing on the same set of notions, found it necessary to invent another arrangement; but there, too, we look in vain for demonstration. This criticism applies also to the theories of von Kries, of J. Bernstein, and others. In comparison with these Dr. Edridge-Green gives us something tangible.

Moreover, the constant reference to this theory by Dr. Edridge-Green has suggested to him the discovery of new facts, and experiment or histological research has in every instance verified his anticipations. Evidently the theory brings us face to face with serious considerations and highly interesting results.

The discoveries of Dr. Edridge-Green have enabled us to lift a corner of the veil. It behoves his opponents to produce greater illumination and to attack him with more serious and cogent arguments than they have yet displayed.—I am, etc.,

House of Commons, March 9th.

ARTHUR LYNCH.

## Universities and Colleges.

### UNIVERSITY OF OXFORD.

MR. HORACE M. VERNON, D.M., Fellow of Magdalen College, has been appointed University Lecturer in Chemical Physiology for four years from January 1st, 1915; and Mr. John W. Jenkinson, M.A., D.Sc., Exeter College, as University Lecturer in Comparative and Experimental Embryology for five years from October 10th, 1915.

### UNIVERSITY OF LONDON.

#### MEETING OF THE SENATE.

A MEETING of the Senate was held on February 24th.

#### Conferment of Status of Appointed Teacher.

The status and designation of appointed teacher were conferred upon the following, who received University titles:

*King's College*: W. Brown, Reader in Psychology; F. S. Locke, Reader in Physiology; O. Rosenheim, Reader in Biochemistry; W. J. R. Simpson, Professor of Hygiene and Public Health.  
*Westminster Hospital Medical School*: R. G. Hebb, Reader in Morbid Anatomy.  
*London Hospital Medical College*: H. M. Turnbull, Reader in Morbid Anatomy.  
*Middlesex Hospital Medical School*: J. Cameron, Reader in Anatomy.  
*Charing Cross Hospital Medical School*: W. Hunter, Reader in Pathology.