FIG. 1—Sonogram. Transverse B-scan 2 cm below umbilicus.

FIG. 2—Patient's human placental lactogen levels (normal range ± 2 S.D. also shown). The arrow refers to time of delivery.

vated levels of human placental lactogen might have been due to the tumour itself and that the fall was due to interference with the blood supply by the increasing pressure of polyhydramnios. This decline in placental function may have contributed to the onset of premature labour.—We are, etc.,

P. A. R. NIVEN
H. J. TERRY
A. T. LETCHWORTH
T. CHARD

St. Bartholomew's Hospital,
London E.C.1

Conscientious Objection to Abortion

SIR,—The injustice caused to patients by the present interpretation of the abortion law has been brought to the attention of the profession and the public. However, the injustice inflicted on a minority of the profession has been given scant attention.

In the eight years since graduating from a London teaching hospital I have managed to do the "right jobs," get the required fellowship and membership, and even obtained the B.T.A. (Been To America). However, I now discover that to have a conscientious objection to abortion on demand precludes one from continuing to practise in the specialty in this country. The head of department of a teaching hospital stated to me at a recent appointments board that there was now no place for a gynaecologist with a conscientious objection to abortion on demand to practise within the National Health Service and "you should cut your losses and emigrate." Other consultant advice has been to take up urology or venerology or

to go into general practice "if you really want to stay in the United Kingdom."

Apart from not wishing to leave my home and family, I do not see why I should waste eight years of training and experience and change to another specialty. Mine is not an isolated experience and I have personal knowledge of six other doctors in a similar case who have either left the country or have been forced to enter general practice. Is the profession aware of this situation and does it really approve? Surely even those who have a liberal view of the abortion law must recognize the place of conscience in the practice of good medicine. I have no desire to impose my personal views on my patients or my colleagues; neither do I want them to impose theirs on me. If the profession and the public cannot see the serious implications of this situation I would do better to emigrate.—I am, etc.,

ROBERT L. WALLEY

St. Peter Port,
Guernsey, C.I.

The Artist's Eye

SIR,—Dr. Ann J. Gower's (2 September, p. 586) misapprehension about the frequency of developmental colour deficiency is a common one. At the same time, there are certain vital points often omitted in carrying out the Ishihara or any other "pseudo-isochromatic" test. The first is the light by which the test is viewed. We may condemn any test in tungsten lighting owing to its strong imbalance on the red side, unless heavily filtered. Daylight (which must not include direct sunlight) is ideal—if only it were consistent in brightness and in spectral quality. The old photographic rule not to take pictures within two hours of sunrise or sunset arises from the heavy bias to the red end owing to atmospheric filtering out of the blue rays. Electric light however, is consistent in its brightness and its spectral composition is acceptable if properly balanced. This can be done by heavy filtering of tungsten lighting (holding back the longer wavelengths to balance with the blue end) or by choosing a specially computed fluorescent tube.

Most fluorescent tubes have been made to give different effects (such as warm sunlight) but there is one, called "Natural Daylight," which gives a reasonable approximation to diffused daylight. It is available in a suitable form for a colour vision test in the Veri-Vide Colour Matching Cabinet (Leslie Hubble Ltd., Woodhouse Eaves, Leicester) and as the Macbeth Daylight Lamp. Both cost in the region of £35 and are portable. A xenon-discharge lamp was designed for me and meets Crawford's specification.² It is of scientific value but is too costly and is not portable for clinic work.

Whatever lighting is used it should not reflect off the test into the eye. This is best prevented by having the light strike the plate at 45° and reading the plate at right angles to the eye. Less satisfactorily (because of foreshortening of the plate) these angles can be reversed. Different dyes have different reflective properties, and colour-defective people have come to learn that if they make use of this they can see a difference between what other people tell them are different colours—though it is really not a difference in hue but in other light properties of the dye. Hence they must not be permitted to

tilt the book, their head, or the lamp about till they can see the reflections. Book, lamp, and head must all remain steady.

Finally, it is misplaced sympathy to say, "Oh, he's nearly got it right." A pilot who lands his plane correctly 9 times out of 10 should still not be allowed that one chance in ten of getting it wrong. As Pickford says,³ the problem is not that they can sometimes get it right but they may sometimes get it wrong.—I am, etc.,

W. O. G. TAYLOR

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Ayr

- ¹ Lakowski, R., *British Journal of Physiological Optics*, 1966, 23, 186.
- ² Taylor, W. O. G., *Annals of Ophthalmology (Chicago)*, 1970, 2, 184.
- ³ Pickford, R. W., *Individual Differences in Colour Vision*, London. Routledge and Kegan Paul, 1951.

SIR,—It is interesting that your leading article (19 August, p. 434) and correspondents come up with differing estimates of the incidence of defects in colour discrimination even if a standardized test is used. Note that the correct term is "colour defect" not "colour blindness." The accepted figures are, as you say, 7.8% of males and 0.4-0.5% of females.

The National Childs Bureau gives 6% of boys but over 1% of girls, the latter being twice the accepted figure. Dr. R. H. G. Charles (30 September, p. 826), confining himself to boys, finds many more defective at a grammar school than at a secondary modern school. These discrepancies are so great that either the test is being severely mishandled or they are real. Dr. L. J. Bacon (30 September, p. 826) quite rightly makes a plea for earlier discovery of defective colour vision. A test for young children and the handicapped has recently been produced by C. Davis Keeler, of 21-27 Marylebone Lane, London W1M 6DS, entitled the Guy's Hospital colour vision test for young or handicapped children. It is hoped that its general use may not only enable the common defects to be found earlier in life—that is, at school entry—but will also enable more valid comparisons to be made between groups of children such as the handicapped, the educationally subnormal, those of different races, and so on.—I am, etc.,

P. A. GARDINER

Guy's Hospital,
London S.E.1

The Porn Industry

SIR,—I enjoyed Dr D. R. Cargill's most entertaining letter (14 October, p. 113) but I feel that it should not go unchallenged. He suggests that Neville Heath's sadistic murders were due to the brutal floggings he either received or administered at his public school. No doubt Heath would have readily agreed to such an interpretation, for he was a pathological liar and a confidence trickster who had been previously in trouble for claiming military rank to which he was not entitled and who introduced himself to his second victim as Group Captain Rupert Brooke. I have no evidence that he ever attended a public school and indeed most of his crimes are more commonly associated with those who wished they had or falsely claimed they did.

When one attacks a vice (I shall not use

the word "sin") those who would defend frequently parade neglected areas such as pride and sloth and demand that these be given priority. There is ample evidence that in vulnerable people pornography fixates or reinforces perverse tendencies, or both. A society which recognizes that its young people have enough psychosexual problems to cope with would be negligent if it did not actively discourage the commercial exploitation of deviant literature and films which advocate sadomasochistic practices and other perversions as legitimate and delectable pleasures. It would not equate these with the practice of school caning, which is generally administered as a just punishment. At the same time I wish Dr. Cargill every success in his fight against pride and sloth, and as a personal favour, would he please include gluttony?—I am, etc.,

M. SIM

Queen Elizabeth Hospital,
Edgbaston, Birmingham

Sexual Permissiveness

SIR,—Those who advocate changes in established morals must expect criticism. Religious dogma and predictions of national disaster have ever been arguments to limit rational discussion.

Mr. Keith Norcross (9 September, p. 640) advocates sexual permissiveness and procedures, many of which are foreign to our accepted way of life. It is brave of him to state his opinions. Perhaps others of like views fear to express them. Could we but free ourselves of prejudice, which is very difficult, we could discuss his thesis on a rational basis with one criterion, albeit a rather subjective one—the effect of any proposed action on the sum total of human happiness.

I think it is not out of context to remind ourselves how the professional leadership castigated those who advocated birth control up to little over 50 years ago, for it was not till 1921 that Lord Dawson of Penn signalled a change in attitude when he addressed the Church Congress in Birmingham, and today most doctors do all they can to help patients who request contraceptive advice.—I am, etc.,

R. S. SAXTON

Laughton,
Lewes, Sussex

Case of Tularaemia in England

SIR,—Your leading article (2 October 1971, p. 4) stated that human tularaemia had not been reported in Britain. In May 1971 we saw in Berkshire a patient infected with *Francisella tularensis* acquired in U.S.A.

A 68-year-old man, in good health despite having had miliary tuberculosis in 1968, had been visiting relatives in North America. On 1 and 2 May he had been for short walks in the Allegheny Mountains of Virginia and adjacent hills in West Virginia. On the evening of 2 May he removed a flat, hard tick about 3 mm in diameter from his right buttock. The next afternoon he felt unwell and by evening had a temperature of 101°F (38.3°C). On 4 May he noticed a swelling in the right groin. He was given a course of antibiotic (? Aureomycin) for three days, and he felt better. However, on 11 May he relapsed, and two days later, when he was in Canada, a doctor found a small (15 mm) ulcer on the right buttock. The swelling in the groin was plum-sized and the patient was

afebrile. The doctor prescribed tetracycline 1.5 g daily for four days and bacitracin ointment for the ulcer. This began to heal but the swelling in the groin increased.

The patient returned to England but still felt unwell, and on 24 May he consulted one of us (D.J.B.). He had no rash, no fever, and no signs in the chest but still had a lesion on the buttock, resembling a healing ulcer with a hard, red edge, and a tender gland in the right groin. He was given tetracycline-nystatin (Mysteclin) 2g/24 hr for three weeks, then 1g/24 hr for a further two weeks. Agglutination studies with blood taken on 26 May and 4 June showed agglutinins to *Francisella tularensis* with titres of 1:640 and 1:5,120 respectively. The patient's general condition improved slowly, and by 4 June he felt completely well for the first time. A blood test on this date showed Hb 99%, W.B.C. 6,800/mm³, E.S.R. 30 mm/hr. The inguinal swelling became much less tender but began to fluctuate. By 8 June it had started to discharge and on that day was evacuated at the Royal Berkshire Hospital by Mr. N. J. Rothnie, who infiltrated the surrounding tissues with chloramphenicol. The pus was sent for pathological examination and a Gram-stained smear showed a large number of very small Gram-negative coccobacilli. No growth was obtained in direct culture on glucose cysteine blood agar. Direct and indirect fluorescent antibody tests indicated the presence of *F. tularensis* antigen. Attempts at direct isolation of *F. tularensis* by animal passage in guinea-pigs were unsuccessful. By 23 July the cavity had healed completely and the patient is at present well.

This is a typical case of American type, ulcero-glandular tularaemia. According to the Tularaemia Research Unit bibliography on *F. tularensis*, there has not been a recorded case of imported infection due to *F. tularensis* in England. Since tularaemia is widespread throughout the holarctic it is not surprising to record this event, and we think its publication may remind our colleagues of the existence of an American, and somewhat forgotten, European disease.

We would like to thank Dr. H. Calvert for advice and Dr. H. M. Darlow and the Microbiological Research Establishment for help in providing suitable facilities for the pathological analyses.—We are, etc.,

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A. D. PEARSON

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Insertion of Celestin Tubes

SIR,—Only half the cases of carcinoma of the middle and lower thirds of the oesophagus in Britain are operable at the time of presentation.¹ Palliation therefore assumes greater importance than with many other tumours. At Portsmouth the palliative method of choice is the Celestin tube.² The method described below has been found useful in simplifying its insertion and diminishing the incidence of two of the commoner complications—infection of the abdominal wound and reflux through the tube.

The tube is cut before insertion, the length required being carefully measured against the radiographs, allowing a reasonable margin below so that the tumour will not grow into and obstruct the lumen. Next the tube is rejoined with a nylon suture on a straight needle, which is passed up the lumen of the tube, through the two ends, and back down the lumen (see Fig.). When the introducer has been passed through the tumour

to the stomach and the oesophagoscope withdrawn the two ends of the suture are used to fix the tube to the introducer and pull the pieces of tube together. The assembly is then pulled through in the usual way, and the abdominal operator has only to cut the nylon and withdraw the distal half of the tube together with the nylon and introducer.

This method eliminates the need for the abdominal operator to cut through a tough tube within the lumen of the stomach, leaving him a minimum of manipulation and a much smaller chance of infecting the wound. Secondly, in middle-third tumours the tube does not protrude into the stomach so the oesophagogastric sphincter is not disturbed.—I am, etc.,

R. S. DAVID

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Manchester

- 1 Younghusband, J. D., and Aluwihare, A. P. R., *British Journal of Surgery*, 1970, 57, 422.
- 2 Celestin, L. R., *Annals of the Royal College of Surgeons*, 1959, 25, 165.

Immunosuppression and Malignancy

SIR,—Prompted by your leading article on immunosuppression and malignancy (23 September, p. 713), we should like to report the following case.

In 1964 a 34-year-old woman developed an erythematous rash on areas exposed to light, dysphagia, and nasal speech. She was admitted to hospital with a diagnosis of dermatomyositis. This was confirmed by muscle biopsy and enzyme concentrations as follows: aspartate transaminase 72 U/ml (normal 0-40), alanine transaminase 50 U/ml (0-30), aldolase 23 U/ml (up to 19). A thorough search for underlying malignancy was unproductive. 80 mg of prednisolone a day was required for control but in 1967, when on 12.5 mg prednisolone daily, the patient developed aseptic necrosis of the right femoral head. An Austin-Moore prosthesis was inserted in 1968. In 1969 steroids were withdrawn and she remained well. In 1971 there was a recurrence of the rash and oedema of the face after exposure to the sun. This became more pronounced in 1972 but no muscle symptoms or enzyme abnormalities were detected. As the rash continued to extend treatment to prevent a recurrence of muscle damage was instituted. In view of the previous problems with steroids, she was started on azathioprine 150 mg daily in March 1972. Three months ago (after 13.65 g of azathioprine) she developed dyspareunia but did not report it until seen this month, when she was found to have an infiltrated vulval ulcer. Biopsy has shown this to be a cutaneous lymphoma of the reticulocell sarcoma type. Deep x-ray treatment is proceeding.

While dermatomyositis is well known to be associated with both epithelial and reticulo-endothelial malignancy, the interval of eight years between the onset of the dermatomyositis and the first evidence of malignancy is outside the usual time limit. The unusual site involved and the immunosuppressive treatment she has received makes it seem probable that the reticulosarcoma of vulva is a result of the treatment rather than the natural course of disease.—We are, etc.,

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J. M. WISHART

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