weaknesses being what they are, there can be little doubt that a night call several miles into the country is done less grudgingly and more efficiently if there is a commensurate reward. It is the all-important incentive that counts.

For the future Health Service I strongly advocate a system of *pro rata* remuneration by the State on the lines of the familiar Form 1667, payment of civilian medical practitioners by the Service departments. The additional clerical work involved would in my opinion be more than worth it, and no doubt the Minister could devise some method of ensuring that all claims were *bona fide*.—I am, etc.,

Launceston, Cornwall.

R. J. HEALEY.

Negotiating Committee and Consultants

SIR,—When a specialist who has been on the staff of a hospital reaches the age limit for that particular hospital—usually 65 years, sometimes less—he is generally “promoted” to being a “consultant,” and while he ceases to carry out any routine work at the hospital he by no means always ceases to carry on his private consulting work. So far as it is possible to judge, the State Medical Service will deprive such consultants of most, if not all, of these patients.

There appears to be no provision in the Act for any compensation to these men for the loss of their practices—often increased, owing to having more time to give to them, and carried on for a number of years after their retirement from the hospital staff. There must be a very large number of such specialists in many branches of the profession in practice today, and I suggest the Negotiating Committee should insist that one of the numerous Regulations which undoubtedly will be made shall ensure a pension or compensation of some sort for these men, unless of course the State is willing to take them into its service—unlikely on account of age.—I am, etc.,

Norwich.

ARTHUR GREENE.

Medical Certification

SIR,—The incursions of the bureaucrat into our professional freedom increase apace, and I am gratified that you have found space in the *Journal* of Feb. 15 (p. 268) to give vent to the protestations of Dr. Basil S. Kent against the personal data required by the Board of Trade before it issues a permit for the acquisition of a “thermos” flask. While I agree wholeheartedly with the stand taken by Dr. Kent I regret that he did concede the diagnosis in the case of his particular patient.

A few months ago I had a similar, if more protracted, correspondence with the Board of Trade which, for the sake of brevity, I summarize:

May 4, 1946. Myself to Board of Trade. Point out that a medical diagnosis is a matter of strict confidence between patient and doctor and request text or content of any Regulation requiring a doctor, after he has certified that in his opinion a patient requires a “thermos” flask, to submit his diagnosis for the approval of a lay official before such flask can be obtained. May 6, 1946. Reply from B. of T. Agreed that medical diagnosis is a matter of confidence but require certification that flask required for health reasons. May 7, 1946. Myself to B. of T. Point out that no doctor is going to act merely in the capacity of a rubber stamp, automatically endorsing applications for flasks, say, for picnic purposes, and that a medical certificate is for nothing but health reasons. May 10, 1946. Reply from B. of T. Permit for flask granted to patient, as it is gathered from my last letter that it is required for health reasons. Would be appreciated if, on future certificates, this additional information could be given. May 17, 1946. Myself to B. of T. after a certificate to another patient had been turned down because of omission of the vital words “for health reasons.” Reiterate that medical certificates are only issued for reasons of *ill-health* and not for flippant reasons. Suggest that a little red tape would save paper, postage, and manpower hours for the B. of T. as well as spare a busy practitioner a lengthy correspondence. Stated that I expected my original certificate to be honoured. May 21, 1946. Reply from B. of T. Permit granted. Stated that it would save the man-hours which I mentioned if on future certificates I included the necessary words “for health reasons.”

What can one do, Sir, in the face of such obduracy? Incidentally, I believe that “thermos” flasks were on sale indiscriminately at a local ironmongers at the same time.—I am, etc.,

Huddersfield.

LESLIE BALLON.

The Spens Committee

SIR,—It is to be hoped when the Spens Committee issues its report that it will be couched in terms which can be understood by any trade unionist. The more obvious details such as wages, hours of work, and holidays are not likely to be overlooked, but there are more recondite matters which will require the exercise of the most precise judgment and discretion if discontent within the profession, leading to “ca’ canny,” “working to rule,” and strikes, is to be avoided. The possibility of claims for “bending-money” from the obstetricians, “stretching-money” from the orthopaedists, “danger-money” from the syphilologists, “dirty-money” and “wet-money” from other departments which I shall not specify are only a few of the examples which could be given.

Remuneration on a sessional basis presents peculiar difficulties of its own. Is the pace to be that of the slowest? If so, production per man hour will suffer. “Time-studies” would have to be introduced to avoid unfairness and consequent bad feeling. The good sense and dignity of the profession would be adequate to prevent cries of “No stop-watches here!”

Then there are degrees of skill and length of experience which will require their own assessment and reward. Surgical operations will have to be priced individually, otherwise the craftsmen who do lengthy operations will be able to take more home in their pay packet each week than, say, the ophthalmic surgeons. A careful delimitation of the various regions of the body will have to be carried out in order to avoid the unseemly disputes with regard to spheres of influence which are already arising. Rewards in kind, such as extra food and nylon stockings, may have to be provided in order to maintain the supply of men in the more tedious and unpleasant specialties, such as post-mortem work.

The cost of production of a doctor is a point which may have escaped the notice of the committee, and I only touch upon it briefly in order to point out that it has been calculated by Socialist writers that the expense of training a doctor would be amortized over his working life by an increase of 5% above the wage of an unskilled labourer. This, of course, leaves out the question of ability, but it should be remembered that in a Socialist State there would be little “rent of ability” allowed, the principle being: “From each according to his ability, to each according to his needs.”—I am, etc.,

Bournemouth.

T. R. AYNLEY.

Behcet's Syndrome and Vitamin K

SIR,—Dr. E. W. Prosser Thomas's very interesting article (Jan. 4, p. 14) on this very serious and intractable complaint and Dr. G. Whitwell's letter (Feb. 1, p. 197), in which he states, “In view of the utter uselessness of all treatment up till now any therapeutic measure would be welcome. The peculiar sensitivity of the skin would suggest a trial of ‘benadryl’ . . .” have prompted me to send a brief account of a very severe skin condition occurring in a friend of mine who had been treated over a period of 3½ years by a competent G.P. and three consulting dermatologists without any amelioration of his symptoms.

It was a case of seborrhoeic dermatitis of scalp, forehead, face, neck, limbs, and hands in which pin-point pustules as described by Dr. Prosser Thomas developed like emboli, the inflammation of one closing the left eye. There were in addition indigestion and intense sensitivity of the skin to light, heat, and cold, and also to drugs such as sulphur and salicylic acid. Beyond some deterioration of sight there was no sign of gross eye lesions nor ulcer of the scrotum or aphthae of the mouth, so I do not know whether this was a case of Behcet's syndrome or not; but in view of Dr. Whitwell's remarks quoted above I should like to draw attention to the fact that after the failure of penicillin, injections of colloidal manganese, desensitization by mag. sulph., colloidal sulphur, vitamins A, B, C, D, nicotinic acid, thyroid, and ephedrine, there was a dramatic cessation and disappearance of the pin-point pustules and consequent easing of the intolerable itching when I gave him a course of “acetomenaphthone” (vitamin K analogue) 10 mg. once a day by mouth. But this drug had no appreciable effect on the dry scaly seborrhoea, which, however, yielded to shampoos and weak concentrations of ung. hyd. nit. dil. and olei cadini.

In the *Practitioner*, 1946, 157, 391, Dr. D. M. Evans commented in a very valuable article on the benefits he has observed in skin and other diseases from the use of vitamin K analogue, and recently in "Any Questions" in the *Journal* (Jan. 11, p. 77) your expert stated that vitamin K seemed "to exercise a beneficial effect in some cases of perniosis—and this was borne out in the case I am recording where the patient said his cold feet were warmer after taking the drug. May I therefore suggest that vitamin K analogue should be given a trial in Behcet's syndrome and the result of such treatment recorded.—I am, etc.,

Paignton.

A. J. AMBROSE.

Vitamin H

SIR,—In a recent paper some preliminary observations were reported about the relationship of premature alopecia and biotin by Chavarria *et al.*¹ In Costa Rica a nutritional deficiency syndrome was studied by them during the last three years which appeared only in children and never in adults. Similar changes were described in Africa under the name of kwashiorkor² or infantile pellagra,³⁻⁸ but they were apparently considered manifestations of other deficiencies. The hair changes in Costa Rican children consisted of dryness, fragility, and loss of colour; the hair became loose and easily and painlessly pulled out, leading to calvities. Concurrently depigmentation of the hair varying from slight greying to intense whiteness occurred. The children often presented other deficiency symptoms such as: follicular keratosis, seborrhoeic-like dermatitis, occasionally diarrhoea, generalized oedema with normal content of blood proteins and hepatic cirrhosis, glossitis, and angular stomatitis. The diet of the affected children consisted chiefly of bananas and molasses.

Unless the patient died shortly after admission the ordinary hospital diet effected a cure. An addition of 0.25 mg. of biotin to the diet twice or three times a day appeared to accelerate the return of both pigment and growth of hair more quickly than the addition of thiamine, nicotinamide, and other vitamins.—I am, etc.,

London, W.1.

Z. A. LEITNER.

REFERENCES

- ¹ *J. Amer. med. Ass.*, 1946, 132, 570.
- ² *Arch. Dis. Childh.*, 1933, 8, 423.
- ³ *Ibid.*, 1937, 12, 193.
- ⁴ *Trans. roy. Soc. trop. Med. Hyg.*, 1940, 33, 389.
- ⁵ *S. Afr. J. med. Sci.*, 1943, 8, 106.
- ⁶ *Nature*, 1944, 154, 148.
- ⁷ *Arch. Intern. Med.*, 1945, 76, 63.
- ⁸ *J. Amer. med. Ass.*, 1945, 129, 12.

Pellagrous Encephalopathy

SIR,—I was interested in Dr. P. R. Graves's account (Feb. 15, p. 253) of pellagrous encephalopathy occurring among prisoners of war in Singapore. In our camp at Palembang, Sumatra, we had a similar syndrome, but had many more acute coma cases. These occurred mainly in the last three months of captivity, when the basic rice ration was 200 grammes per diem, with very little vegetable and practically no protein foodstuffs. Most of the acute cases had previously shown well-marked signs of pellagra and were all greatly emaciated. Some went from the ambulant stage into coma in the space of hours, and on occasion a man failed to report at the morning roll-call as he had in fact gone into a coma overnight in his billet. All showed quadriplegic rigidity, but I cannot remember any case which had convulsions. We were able to perform only one or two necropsies and these very much *sub rosa*. It was possible to examine the brain *in situ* only. The hemispheres showed generalized oedema, but apart from that little else was noted, and it was not practicable to open the abdomen.—I am, etc.,

Devonport.

J. P. CORCORAN.

Intravenous Procaine (Novocain)

SIR,—More is known about the effects of intravenous procaine (novocain) than is suggested in the reply to a question in the *Journal* of Feb. 15 (p. 282). Procaine has indeed quinidine-like actions on the heart which can prevent the development of auricular or ventricular fibrillation in experimental animals. Since, however, this action can only be produced on intravenous injection, and probably only by doses that cause central nervous side effects, it is not likely to be of much therapeutic value.

Procaine has also been given by intravenous infusion for the relief of pain due to burns (Gordon, R.A., *Canad. med. Ass. J.*, 1943, 49, 478), for the relief of the pain of labour (Allen, F. M., *Amer. J. Surg.*, 1945, 70, 283), and for sundry other types of pain and in the relief of pruritus (Lundy, J. S., *Clinical Anaesthesia*, Philadelphia, 1942). It has been suggested that this analgesic effect is due partly to a local action on a traumatized area, where increased capillary permeability would allow greater amounts than normal to escape from the blood, and partly to an action on the central nervous system. For this purpose procaine has been given intravenously in doses of up to 5 g. in 1½ hours.

It is important to realize that the toxicity of intravenous procaine is very closely related to the speed of injection, since the compound is rapidly detoxicated, partly by an enzyme in the blood (called "procaine esterase" by Kisch, Koster, and Strauss) and partly by a similar enzyme in the liver. The procaine is hydrolysed to para-aminobenzoic acid and diethyl-amino-ethanol, neither of which has the typical peripheral or central actions of procaine. If the rate of infusion exceeds the rate of breakdown the blood level of procaine will rise steadily, and toxic effects such as convulsions and respiratory failure will finally occur. Tachycardia usually appears when procaine is injected at rates exceeding 2 ml. per minute of a 1% solution (20 mg. per minute) and becomes marked when rates of over 5 ml. per minute (50 mg. per minute) are given. It is claimed that the convulsive action of procaine is prevented by pre-medication with barbiturates—e.g., pentobarbitone (1 gr. (65 mg.) by mouth).

The safety and value of intravenous procaine as an analgesic have not yet been adequately assessed; studies on this subject are in progress in my laboratory at the present time.—I am, etc.,

Department of Pharmacology,
Middlesex Hospital Medical School, London. W.1.

C. A. KEELE.

SIR,—With regard to the question (Feb. 15, p. 282) on intravenous novocain (procaine) dosage, it may be of interest to mention some unpublished facts on this subject. The writer has now administered procaine by vein in 48 cases, mainly for post-operative pain in place of morphine. The routine dosage has been 1 g. in 0.2% solution given over a period of 60–70 minutes. No deleterious effects have been noted and in general satisfactory analgesia has been obtained without the dangers of post-operative respiratory depression. This analgesia persists for as long as four days in some cases and its action is by no means clearly understood. Further investigations are at present being undertaken to determine effective blood levels consistent with safety and the mechanism of action of generalized procaine effects.

In addition to its analgesic effect intravenous procaine has a mild cerebral excitatory action which is beneficial in many post-operative cases. This effect may be very easily controlled by barbiturates, which have the further advantage of increasing the minimum lethal dose of procaine fourfold (Goodman and Gilman).—I am, etc.,

London, W.12.

E. J. DELORME.

Endocrine Receptors

SIR,—We have to be grateful to Dr. S. L. Simpson (Feb. 15, p. 270) for standing up in defence of endocrinologists who paid attention to the "endocrine receptors" discussed by Mr. Aleck Bourne (Jan. 18, p. 79) in view of your statement in the editorial review in the same number (p. 96).

Due tribute should be paid, however, on this occasion to Prof. Julius Bauer, of Los Angeles, California, formerly of the University of Vienna, who based his teaching of endocrinology on this assumption as long ago as 1917.¹ The piquancy of the situation is the fact that in the summary of his works, *Constitution and Disease* (Wm. Heinemann, London, 1942), he devoted a whole chapter to the discussion of this question (p. 53). The book was extensively reviewed in your leading article of April 24, 1943 (p. 510), from which I quote: "Like H. H. Dale, he [Bauer] emphasizes the importance of the receptivity of the organ to hormonal stimulus, which explains cases where the endocrine lack is expressed in only one organ." In a previous paper² Bauer explains the manifold activities of the pituitary hormones in this way.