the State, or will I have to send my patients to a midwife and another doctor on the "list"? Can the Minister or anyone interested in seeing this part of the Act implemented as it stands to-day tell us the answer to these questions?

The matter seems to me to strike at the very root of our acknowledged principle of being free to exercise the art and science of medicine.

If the "others" are debarred from practising midwifery in the Service, then the first sentence quoted can, at best, only be called a terminological inexactitude. The "others" have been passed as competent by their university or college professors or they would not be qualified, and in the absence of proved incompetence or negligence after qualification I can see no justification whatever for preventing them working in the Service. General practitioners might next be prevented from treating pneumonia as this would be the province of "physicians," from treating a whitlow as this would be the province of a "surgeon," from giving an anaesthetic as this would be the province of an "anaesthetist."

We are qualified practitioners. It has been and should continue to be our right to decide when we shall refer our patients to another practitioner. And that should be only when we feel in need of his help or advice—and not when we are instructed to do so from "higher authority."

My fears are not fancies. Many of us experienced interference in our professional freedom during the war, but that is not necessary now. Let us see that it shall not be so by our united voice. In this as in the other vital issues raised with the Minister it is only by unity that we can ensure that the best possible service is evolved for our patients and ourselves.—I am, etc.,

Harrogate.

D. C. WILLIAMS.

SIR,—A crucial question at this time which I think is being forgotten is, Do the public gain in health through the introduction of the Service at this stage?

The answer is obviously "No." The Service will call for more work among doctors owing to more visits by patients and the inevitable form-filling which is the necessary evil of any co-ordinated service. If we look upon the patients as the material with which we work, and whose medical well-being is our "finished job," then I'm afraid we're being forced on them at a time when workmen and material are of poor quality. We should have workshops (hospital beds)—the present numbers are inadequate; also assistants (nurses)—whose number is also inadequate.

A little variation in available foods may brighten a few, in mind if not in body. Tuberculous-infected milk can still take its toll of children, and tuberculous patients still linger at home waiting for hospital beds. However bad these are, and however good are the excuses for not remedying them now, the introduction of a health service, which to the patient promises improvement in medical care, can do nothing—in fact, we could be made the scapegoat for its failure.

Let us accept the role of heaven-sent advisers to Aneurin Bevan and tell him gently "No," or at least "Not yet."—I am, etc.,

Newport, Mon.

H. J. HOUGHTON.

SIR,—I have never seen or heard discussed the obvious solution to the aim of the National Health Service—the desire of the public for the avoidance of doctors' bills. All patients desire private (in every sense) service, and pay for such when possible. Why not have universal private practice, raising panel patients to the private level, and let the £66 millions, plus insurance, pay the doctors' bills?—I am, etc.,

Farningham, Kent.

H. M. DENHOLM-YOUNG.

SIR,—In all the letters which you publish in your issue of Jan. 3 I have not observed any mention of the one solid ground upon which we may rightly take our stand with the solid psychological backing of the general public, a prerequisite to any success—i.e., the absence of the right of appeal to the High Court. No amount of "haggling" over fees or the precise method of remuneration would cut much ice with the public, enlist their sympathy, or enhance our prestige. But to refuse

us a right of appeal is a refusal of bare justice and reason, weakens the Minister's case, and is clearly illogical. *The Times* leader complained that the dispute was passing from the logical into the emotional. No emotion is involved in the right of appeal. I am heartily in favour of a basic salary.—I am, etc.,

Hassocks, Sussex.

CHARLES FRANKLYN.

SIR,—One hears the question asked, "What can we do if the Minister brings the Act into operation in spite of us?" with dark hints as to the penalties for strikes by bodies other than trade unions. Surely there can be no question of a strike against a non-existent employer? Again, is there anything to prevent the individual general practitioner from saying to a patient on and after July 5, "I am not in the Service. I am perfectly willing to treat you, but in case the Minister gets up to any hanky-panky about the recovery of medical fees I must ask you to pay me each time I see you, and I am sorry, but I cannot let you have any certificate for anything." Perhaps some of your readers learned in the law will let us have their views on our powers and limitations.—I am, etc.,

Launceston, Cornwall.

DONALD M. O'CONNOR.

The Treatment of Myasthenia Gravis

SIR,—Your interesting annotation on this subject (Dec. 13, 1947, p. 966) did not mention the recent work of Torda and Wolff (*Arch. intern. Med.*, 1947, 80, 68) on the effect of intravenous administration of an enzymic hydrolysate of casein ("amigen") to five cases of myasthenia gravis. The concept that much of the symptomatology of myasthenia gravis could be explained by decreased synthesis of acetylcholine, and the demonstration that this synthesis could be increased *in vitro* by amino-acids and proteins, provided the rationale for their procedure. Muscle action potential records were made in patients with myasthenia gravis and in healthy subjects. Full details are given of one patient in whom the known decline of the amplitude of muscle action potential after prolonged indirect stimulation was prevented by amigen; this patient was even able to postpone the taking of "neostigmine bromide." The remaining cases were less severe, but responded similarly. There was an improvement in muscle function signified by increased performance of work and a reduction in the daily requirement of neostigmine bromide during the period of amigen administration. Obviously this effect of amino-acids in myasthenia gravis may implicate many processes, and examples of these are discussed. Admittedly Torda and Wolff stated that "no therapeutic implications are justifiable from these preliminary experiments," but their apparently favourable results would seem to deserve notice.—I am, etc.,

Rowett Research Institute, Aberdeen.

L. R. C. AGNEW.

Penile Carcinoma

SIR,—I am bound to meet the friendly challenge of Mr. D. M. O'Connor (Dec. 20, 1947, p. 1010) for evidence of my belief that the mixed bacterial flora rampant beneath the phimotic prepuce may be transferred to the vagina and may there set up cervical carcinoma. The admitted relative freedom of Jewish women from the disease already raises a presumption in favour of this explanation.

For many years I sought to find a specific peculiarity in the tissues of precancerous areas. Such areas have usually been the sites of chronic local infection, especially by the staphylococcus, the treponema, the tubercle bacillus, or by a virus, or have been subjected to the action of tar or other chemicals, or have been unduly exposed to solar or x-ray radiation. Anatomically, on skin surfaces the cancer is preceded by papillary hypertrophy, on mucous surfaces by the formation of adenomata. I have demonstrated that a lymphatic capillary is the central structure of each papilla of the skin, and that in a papilloma this central lymphatic is blocked by previous infective lymphangitis. This observation, simple as it is, is in my opinion the key to the origin of cancer. A rise in intercellular pressure necessarily follows, the papilla swells up, and all its tissues are nourished at high pressure by stagnant but over-rich tissue fluid, largely deprived of its hormones and probably poor in oxygen. At this stage the bacteria have done

their work, and they usually disappear, but the nutritional upset persists, and under the influence of lymph stasis the papilloma may ultimately in the course of years evolve into carcinoma without the intervention of any new factor.

In lupus cancer, x-ray cancer, and tongue cancer I have traced every stage of this process, and Mr. O'Connor will find the evidence fully stated in my book *The Genesis of Cancer* (Kegan Paul, London, 1931). I have not had the material for extending my observations to cancer of the penis and of the cervix, but it seems most unlikely that these forms of cancer are exceptions to a rule which appears to be general. The papilla is a little physiological engine. It must be supplied with not too rich a mixture at the right pressure, and must have a free exhaust. Lymph stasis following local bacterial infection violates all these conditions, and cancer is the ultimate consequence.

Temporary lymph stasis is seen in every focus of acute inflammation as Nature's method of inducing proliferation and repair. The enormous legs of elephantiasis show how intense is the proliferative impulse imparted to a tissue if the lymph stasis is permanent. It was from a case of elephantiasis which presented about fifteen separate epitheliomata on the affected limb that my researches started.—I am, etc.,

London, W.1.

W. SAMPSON HANDLEY.

A Method of Abdominal Palpation

SIR,—Dr. E. W. Price (Nov. 1, 1947, p. 703) argues in favour of abdominal palpation when the patient is sitting upright or leaning forward. I have been convinced for a long time that the abdominal palpation used on patients supine is frequently insufficient, and so I complete this first examination, when necessary, by the following methods:

(1) *Genu-cubital Position*.—This throws forward the deeper organs and enables one to distinguish some pains, especially those issuing from the right iliac fossa.

(2) *Orthostatic Position*.—When the patient leans forward, or is sitting, his legs are drawn up against his abdomen. Therefore I usually ask the patient to *lean backwards* and relax as much as he can. In order to make this possible he must be supported at the back. The physician behind the patient could support him, but this situation might prove awkward in some instances.

In order to avoid this difficulty I have had a "palpation board" constructed. It is 14 in. (35.6 cm.) wide and 6 ft. (1.83 m.) high. The top part of the board is attached to the wall at a distance of 17 in. (43.2 cm.), while the base of it is 24 in. (61 cm.) away; this inclines the board at an angle of 8–10 degrees.

To use the vertical palpation, one stands behind the board, between it and the wall. The patient is standing against the board in a leaning position and completely relaxed. The top part of the board is adapted with a groove; this enables it, when not in use, to be slid back against the wall so as not to take up too much room.—I am, etc.,

Geneva.

M. J. DEMOLE.

General Anaesthesia and Surgical Shock

SIR,—In a recent article (1947) I cited evidence to prove that fainting and shock are identical in origin, and that both are due to overstimulation of the sympathetic nervous system, a prominent cause of which in civilized man is pain. Opponents of the theory of the sympathetic origin of shock have pointed out that shock fails to develop in conditions such as biliary and renal colic, in which pain is intense and prolonged (Moon, 1938). Painful (sensory) impulses, however, are not the only shock-producing impulses arising in damaged tissues (Moon, 1944).

That pain is capable of causing shock is clearly demonstrated by the effect, in pre-antiseptic days, of the introduction of general anaesthesia on the mortality from surgical operations (amputations). It is to be remembered that general anaesthesia, though effectively cutting off all painful impulses from the vasomotor centre via the sensorium, does not prevent the reception by that centre of non-sensory shock-producing impulses from the traumatized area via the spinal cord. To prevent the reception of such impulses spinal anaesthesia is required (Tomb, 1937).

In an address to the Hunterian Society in 1848 "On the Advantages of Ether and Chloroform in Operative Surgery" Dr. T. B. Curling quoted statistics showing that the death rate from surgical operations in the London hospitals during the year 1847–8 fell by 50% consequent upon the introduction of general anaesthesia—a result which must be attributed to the diminution of shock from the prevention of pain and the sympathetic overstimulation arising therefrom.—I am, etc.,

Sydney.

J. WALKER TOMB.

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Thiouracil in Toxic Goitre

SIR,—In his letter (Dec. 6, 1947, p. 927) in connexion with our paper on "Thiouracil in Toxic Goitre" (Nov. 15, p. 759) Mr. Henri Roualle mentions experiments in which thyroid tumours have been produced in rats treated with thiouracil. Although these and previous experiments on the same lines are remote from the clinical use of thiouracil, a watch must be kept for neoplasm developing in the thyroid in patients taking thiouracil. After four years' experience we have not yet seen such a development nor has it been reported as far as we know. In the animal experiments the thyroid enlarges, whereas in our experience thiouracil often leads to a reduction in the size of the goitre.

Mr. Geoffrey Keynes and Dr. J. W. Linnell (Dec. 13, p. 971) think that the ten deaths in our 95 patients are to be attributed to thiouracil or perhaps failure to employ some other form of treatment. In nine of the ten this was not so, as shown by the details we gave. Three cases were too near death on arrival for any treatment to be effective; they had thiouracil for a few days to a few weeks before death. Six patients died from cardiovascular disease not immediately due to toxic goitre. The average age of these nine patients who died was 70 years.

As to the potency of thiouracil in restoring normal rhythm in goitrous fibrillation, our figure of 50% restored understated the case. This was because we included in the failures two patients who died shortly after coming under observation and before there was time for thiouracil to exert its effect, and also one, possibly two, patients who also had mitral stenosis. No quinidine was used for any patient. It therefore seems that thiouracil is almost the equal of thyroidectomy in converting goitrous fibrillation to normal rhythm. Lastly, as to the cases in which thiouracil is to be preferred to surgery in toxic goitre, we think that this applies to the elderly, thiouracil being the safer, particularly in those with evidence of degenerative or hypertensive cardiovascular disease. Again, in younger patients with smooth goitres of moderate or small size our results showed good control with thiouracil and a high proportion of remissions.—We are, etc.,

Bournemouth.

HAROLD COOKSON.
F. H. STAINES.

Tetraethylammonium Bromide

SIR,—In the annotation (Dec. 27, 1947, p. 1041) attention is drawn to the great possibilities of the drug tetraethylammonium bromide (T.E.A.B.). Stimulated by the early American publications, we obtained supplies of this drug early this year for clinical trial through the kindness of Dr. W. R. Thrower and Messrs. May and Baker. A short paper is being prepared giving the results of this trial, but it is not out of place to remark here that we have in general failed to produce the very favourable results reported by Coller *et al.* last June (*Annals of Surgery*, 1947, 125, 729).

Our main use of the drug was to attempt to reduce those symptoms most troublesome to hypertensives attending the medical out-patient department—i.e., headaches and giddiness—by weekly or fortnightly administration of T.E.A.B. intravenously or intramuscularly. We found that some patients obtained dramatic benefit, headaches disappearing for days or even weeks and vision clearing appreciably, so that the smaller newspaper previously unreadable could be read with comparative ease. This last statement was made quite independently by three separate out-patients who had never seen each other and to whom no suggestion had been made that improvement