these concepts obviously require additional experimental and clinical evidence before we can be sure of their validity, there is much to support them at the present time.—I am, etc.,

LESTER R. DRAGSTEDT.

Chicago.

REFERENCE

[1] Dragstedt, L. R., *Amer. J. Roentgenol.*, 1956, 75, 219.

Oestrogens and Breast Cancer

SIR,—In the annotation on this subject in your issue of May 10 (p. 1115) the impression is given that there is general acceptance of a simple oestrogen-dependence of breast cancer. The view of a single dependence of breast cancer has been untenable for some time. The effects of oophorectomy, as with the natural menopause, do indeed reduce the total oestrogen as measured by excretion products, but the complex changes of the menopause, either artificial or natural, appear to be the important feature in the regression of the tumour. This complex involves a gross alteration in both adrenal and pituitary function.

Such an alteration is of great importance, as is borne out by the clinical efficacy of both adrenalectomy and hypophysectomy. Moreover, the success of adrenalectomy is not dependent on the level of oestrogens before operation, and regression can also occur even when oestrogen remains after adrenalectomy. This must imply that the removal of some other adrenal product is of at least equal value to the removal of some oestrogen.

Finally, regression of cancer will occur after hypophysectomy, even though no oestrogen is detectable by present-day means before operation. All these findings suggest strongly that simple dependence on a single hormone is improbable and that the tumour, if hormone-dependent, is probably dependent on a mixture of hormones, oestrogenic, progestational, and pituitary in nature. Interference in any or all of these factors may be necessary to influence the hormone-dependent tumour. It should be also remembered that oophorectomy only reduces and practically never abolishes oestrogen secretion, and that a considerable number of patients after adrenalectomy still excrete oestrogen in measurable quantity—a factor which emphasizes the importance of the other hormonal influences.

This clinical evidence falls in line with the present experimental evidence that breast growth in an animal after hypophysectomy cannot be produced by any single hormone administration and requires at least three factors—an oestrogen, a progestogen, and a pituitary hormone.—I am, etc.,

E. F. SCOWEN.

London, E.C.1.

To-day's Drugs

SIR,—The *British Medical Journal* is to be congratulated on the new item in its columns entitled "To-day's Drugs," introduced in the issue of May 3 (p. 1061). In the annotation (p. 1055) introducing this feature it is stated that "we hope to publish at intervals authoritative short notes giving practical guidance on new drugs and on older drugs appearing in new forms," which in effect covers most of the recent proprietary preparations. It is to be hoped that the "intervals" will not be greater than a week and that this scheme will be retrospective as well as prospective. It is also to be hoped that the layout of the items should be on the lines previously suggested by me[1] for describing pharmaceutical products in the form of a standard reference card and should also include the price.

Is it too much to hope that the *B.M.J.* will start a service for doctors like that compiled by the *Pharmaceutical Journal* for chemists, but without the latter's well-known disadvantages?[2] If the items in "To-day's Drugs" were laid out as suggested above, 7 by 5 in. (17.8 by 12.7 cm.) cards could be reprinted of those items and incorporated into an index run on the lines suggested by Mr. G. Raine[3] and subsidized by the pharmaceutical industry through the Association of British Pharmaceutical Industry, the exact details of which would have to be worked out.

Finally I wish to record my grateful thanks to those pharmaceutical firms who are taking note of my previous suggestions.—I am, etc.,

JOHN D. W. WHITNEY.

London, W.12

REFERENCES

[1] *Brit. med. J. Suppl.*, 1957, 2, 7.
[2] *Brit. med. J.*, 1956, 2, 1431.
[3] *Brit. med. J. Suppl.*, 1957, 2, 76.

Vesico-vaginal Fistula

SIR,—In your leading article (*Journal*, May 10, p. 1110) you have written: "There is reason to suppose that even now there are unfortunate women in the *remoter* (my italics) parts of this country who, day in and day out, tolerate a seepage of urine believing that their condition is incurable," and you hint that we should try to find these unfortunate women and try to help them. By all means let the gynaecologists, general practitioners, and others search diligently for these women so that they may have the best that we have to offer, but let us not delude ourselves into thinking that they are easily found or easily handled, or that their restoration to health will necessarily be simple. The restoration of continence in some cases can be as difficult as any other task in gynaecological practice.

Within the past 10 years or so I have "found" a few women with persistent fistulae, and there is every reason to suppose that there are many more, but it is not necessarily in the "remoter parts of this country" that they hide themselves; it is more likely to be in the big towns. I, too, believe that these women should be sought out, but this is a much more difficult matter than may generally be realized.

Previous attempts at closure, often on top of the trauma causing the fistula, may have been much more of an ordeal than was really necessary, and even the thought of further surgery just cannot be faced. (I have notes of one woman who, in the six months before she was referred to me, had eight anaesthetics and three operations.) A further complication is that the distress of the dribbling incontinence can quite change a woman's nature. More than once I have observed an allegedly "difficult" patient change almost beyond recognition once her suffering was relieved. Also, previous attempts at closure may have been "successful," but only for a week or so while post-operative oedema lasted. The patient's hopes were raised by her dryness to such a level that the subsequent return of incontinence was devastating, bringing her near suicide level. She may be unwilling to go through it all again. The surgeon in charge, too, may not have helped by being much too light-hearted about the lesion and far too optimistic about the prognosis.

The protective shell into which the woman retires is illustrated by one patient, now cured and very grateful, whom I suspected of still having her fistula when I scrutinized her old hospital records; she had to be tricked even to coming to see me by sending the ambulance to her door against her last-minute wishes. Even then I had to overcome 18 years of resistance (the time she had been incontinent) on both her part and that of her husband. When eventually she was admitted to hospital she nearly walked out again. As it so happened, the repair was simple and successful.

The vesico-vaginal fistula seldom kills its victim, but it probably makes her life more of a misery than any other single condition, and so we must do all we can for those with this most distressing and humiliating affliction.—I am, etc.,

C. SCOTT RUSSELL.

Sheffield, 3.

Polio Vaccination

SIR,—I appreciate the leading article on poliomyelitis vaccine which appeared in the *Journal* of May 3 (p. 1053). Your reference to tuberculosis as a bigger problem in this country than poliomyelitis is more than apt.

I wonder if the figure of "75 injections a day" which you quote in the article is correct. Was not the figure "75" intended to apply to a session of two and a half hours? During such a session my medical officers have for some months been able to give easily more than 75 injections. To allow an average of more than two minutes for performing each injection must surely presuppose that there is no preliminary planning and "streamlining" of the necessary