Wales 44% of the men and 56% of the women who committed suicide used coal gas. McCulloch, Philip, and Carstairs (1967)² reported that of the 216 suicides in Edinburgh in the years 1963-5 40% were due to coal gas, the proportion being the same for both sexes. Your opening sentence should thus have referred to common methods in completed suicides.

The last paragraph of your leading article indicates that the neurological prognosis of patients who have inhaled carbon monoxide is generally good, and with this we would agree; but you close with the sentence: "It is a paradox that many patients might not wish it so." You have failed to appreciate that the vast majority of poisoned patients do not wish to kill themselves, and the motive is unknown for many who die. Kessel¹ pro-

posed the term "self-poisoning" as being more appropriate than "attempted suicide," as he considers the latter not only misleading but positively wrong. If these acts have a purpose it is nearly always to alter the social situation, rather than self-destruction.—We are, etc.,

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- ¹ Kessel, N., *Brit. med. J.*, 1965, 2, pp. 1265 and 1336.
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Fluphenazine Enanthate in the Maintenance Treatment of Schizophrenia

SIR,—We read with interest the letter by Dr. N. S. Capstick (20 January, p. 181) and review briefly our own experience with fluphenazine enanthate in a 107-bedded unit based on a general hospital. Our experience with this drug is similar to that of Dr. Capstick, but, because of the reluctance on the part of some psychiatrists to use this preparation we feel the need to enlarge on one or two aspects of treatment.

To date we have treated a total of 79 patients, of whom 70 are still receiving maintenance therapy. The failures showed: 7, inadequate response; 1, absconded (therefore excluded); 1, discontinued (abnormal fear of hypodermic needles).

Of the 70 patients 66 are now discharged from inpatient care and are attending the hospital for injection. Four are being stabilized as inpatients.

The following Table may be of interest:

Period of Treatment (Months)	No. of Patients
0-6	26
6-12	18
12-18+	26

These figures should help to dispel doubts regarding the efficiency of the drug in maintaining patients in gainful occupation in society, thus relieving pressure on the bed state. The readmission rate and the need for further E.C.T. have also greatly diminished. A detailed report of our findings will be published at the end of the year.

It is our practice to start medication as an inpatient, giving fluphenazine orally, followed some two weeks later by 0.25 ml. intramuscularly as a test dose, then by 0.5 ml. about two weeks later. The doses are then adjusted to the individual response, depending upon what the patient can tolerate with minimal side-effects. If there are any side-effects we have a chance to observe them in the initial stages and have been able to control them with orphenadine or procyclidine. In this group of chronic schizophrenic patients we have found fluphenazine enanthate highly effective, and we feel that psychiatrists need have few qualms concerning toxicity, side-effects, or patient control with a long-acting preparation

such as fluphenazine enanthate.—We are, etc.,

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SIR,—The contributions from Dr. N. S. Capstick (20 January, p. 181), Dr. R. Hicks and Dr. I. M. K. Ovenstone,¹ and Dr. C. M. Parks *et al.*,² bring forward for consideration whether or not the time is opportune to recognize that the phenothiazines exert at least two significantly different effects on the central nervous system. These two separable effects comprise a general sedative effect at subcortical level, and a more specifically directed antipsychotic effect which, if exerted over a sufficient length of time, conceivably may be associated with a destructive lesion, possibly in the strio-nigral system.

In a manner of speaking it is coincidental that we have come to think of these drugs as divisible into a "broad spectrum" group (of which chlorpromazine is a good exemplar) and a "narrow spectrum" group. I say "coincidental" because probably those phenothiazines which are utilized by us primarily for their general sedative effect do not produce a specific antipsychotic effect unless we use them in sufficiently high dosage to procure an antipsychotic effect; and *vice versa* with the narrow-spectrum antipsychotic group. If these hypotheses correspond to fact then it may be that in many patients a rational therapy would be to combine the use of small doses of a broad-spectrum (sedative) drug such as chlorpromazine with a narrow-spectrum antipsychotic drug.

What is now emerging from your columns is that there are an increasing number of patients, especially in the older age groups (who are predisposed to degenerative lesions by virtue of their impaired cerebral circulation) who develop these choreiform movements, and less frequently ballismus and athetosis. I think it possible that with some of these patients (especially the older group) these effects are not reversible and are not easily covered up by such drugs as orphenadrine, because, I believe, there has in fact accrued a destructive lesion.

These notions tie up with the nowadays well-documented observation that if one subjects a number of chronic schizophrenics to long-standing phenothiazine therapy (for example, over a period of 10 to 15 years) the time arises when these drugs can be reduced very considerably and indeed in many instances withdrawn completely. In such cases it seems possible that what we have done is not only to sedate a brain but in addition to destroy nerve cells (or interfere with enzyme system activity) and thereby eradicate delusions and hallucinations. The comparison with leucotomy is invalid if it be a fact that we are not interfering with tracts but attacking relatively specific centres of activity in the mid-brain. Further, if these hypotheses correspond to fact then it might seem that a logical therapeutic regimen would be to subject our patients to an intensive barrage of narrow-spectrum antipsychotic phenothiazines for a limited period (which might prove to be about three months at most), then switch over to a broad-spectrum sedative phenothiazine for a period of two or three years, during which latter period one would aim at rehabilitation by means of psychotherapy and social therapy. The place of E.C.T. and insulin sopor within such a regimen would be justified on empirical grounds, though doubtless these latter methods ultimately also will be reducible to scientific consideration. One need hardly stress the importance of having regard to the medico-legal responsibilities involved in such notions if it be true that with the use of certain of these narrow-spectrum antipsychotic phenothiazines one is indeed destroying neural tissue and endangering in certain instances (especially the older age group) the risk of permanent damage and the emergence of these choreiform movements to which your correspondents are drawing attention.

In fact, from the records available to me, I possess one patient who I believe may have become incurably choreiform (age 61) and three other patients who I suspect possess permanent relic of minor "movements." As against these four patients, there are hundreds of beneficiaries, and the occasional "miraculous" recovery.

May I suggest in conclusion (if these hypotheses be correct) that we should cease thinking about "the sedative" phenothiazines as opposed to the "stimulating" phenothiazines (though still retaining the notion of "sedation" for the broad-spectrum group) but now speak simply of the "more potent" phenothiazines, recognizing that these latter possess a more potent "antipsychotic" effect. It seems possible that certain of the butyrophenones (for example, haloperidol) possess a target "antipsychotic" effect very similar to that possessed by the "more potent phenothiazines." One may of course think of a narrow-spectrum "sedative" phenothiazine such as promazine.—I am, etc.,

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- ¹ Hicks, R., and Ovenstone, I. M. K., *Brit. med. J.*, 1966, 2, 1071.
- ² Parks, C. M., Brown, G. W., and Monck, E. M., *Brit. med. J.*, 1962, 2, 1262.

Identification of Tablets

SIR,—I understand that there is, at present, a working party appointed by the B.M.A., the Pharmaceutical Society, and the Ministry discussing this matter. It would appear to me that the case for identification of tablets is overwhelming and this system should indeed have been introduced many years ago. In fact such a system was introduced by an individual firm (under the trade name of "Co-tabs"), but instead of receiving support this firm's individual effort was censured.