cubic foot. I have read that a child produces 0.3 cubic foot of carbon dioxide in one hour.¹ Assuming that a baby may produce 0.15 cubic foot, this gives about 6½ hours to fill a whole cubic foot, but much less to displace the comparatively small pocket of air in which the baby's head may rest.

It would be easy to determine the increase in level of the carbon dioxide at the bottom of different types of cots over several hours by taking samples of the polluted air.

Pause at the Parameter

SIR,—May I thank you for your magnificent analysis of the meanings of the new technical term "parameter" (30 April, p. 1063)? At best, one would say that the word is imprecise and is used to give an aura of innate science.

Use of such terms will dissuade many of us from reading an article further, since we may feel that we have insufficient knowledge of science or statistics to understand it fully. Nevertheless, had the author substituted a simple word such as "measurement," "reading," "value," or "factor" for "parameter," then the paper would have been quite understandable.

The way a new word will attain sudden popularity is a phenomenon of our times. Sir Ernest Gowers, whose recent death is such a loss to us, wrote that ready acceptance of such words seems to some people the sign of an alert mind; to others it stands for the herd instinct and lack of individuality. Sir Ernest took the latter view, and I am sure that he was right.

The English language is, of course, fluid and not static. New words must of necessity be introduced to express new notions. However, it is quite indefensible to allow a new word to intrude if its meaning is less precise than that of an old word already available.

You, Sir, have done a service by your exposé of the woolly term "parameter." You and other editors have the power to help further in that you can extinguish these forest fires at their inception.—I am, etc.,

Solihull, Warwicks.

PHILIP JACOBS.

SIR,—I enjoyed your leader on parameters (30 April, p. 1063). I am sure, however, that many medical users of the word have never read the definitions you quoted, and certainly these bore little relation to your examples. A direct translation, such as "measurement alongside" or perhaps "related measurement," comes nearer the common medical meaning, which is exemplified in Dr. R. H. D. Bean's article in the same journal (30 April, p. 1081). In his report of Case 1 he says, "Over the four-year period of treatment all parameters of the disease steadily improved." Here I think "aspects" would be better; the term must presumably include looseness and frequency of stools, loss of blood and mucus, and general well-being, as well as the barium enema, and "aspects" is a shorter and more pleasant word with a recognized meaning which does not smack of pseudo-science, nor pretend to have measured things which have, in fact, been appraised with an expert eye—a much more scientific procedure.—I am, etc.,

Hospital for Sick Children.
London W.C.1.

NIGEL LEGG.

I have, I hope, explained why I myself am convinced that carbon-dioxide poisoning is thus the cause of the bulk of these unexplained deaths, and I could be persuaded otherwise only by some practical evidence as to why it is not so.—I am, etc.,

London S.W.1.

F. R. NICHOLLS.

REFERENCE

- ¹ Adam, L. C., and Boome, E. J., *Notter and Firth's Hygiene*, 1940. London.

SIR,—Thank you for a very sensible leader (30 April, p. 1063) which clearly shows the objections to the current usage of this term as implied but not detailed in my letter (17 July 1965, p. 174).

For the consolation of those conscientious students who worry over the word, may I say that a little unofficial research of mine would suggest that the author is little more likely to know its meaning than the reader.—I am, etc.,

Glasgow W.3.

D. M. SINCLAIR.

SIR,—You write that "parameter" has come into fashion. You are well behind the times. "They" use "metameter" now. As you don't seem to know what a parameter is, I can have little hope that you can answer my question—"Please, what is a metameter?"—I am, etc.,

London W.C.1.

D. R. LAURENCE.

* The term "metameter" was apparently first used in a paper entitled "A Biological Test for Vitamin P Activity," by Bacharach, A. L., Coates, M. E., and Middleton, T. R., *Biochem. J.*, 1942, **36**, 407. The authors state that Professor Lancelot Hogben suggested the term to them. They used it "to designate the measurement, or transformation of the measurement, used in evaluating biological tests." A slightly more restricted definition is given in *A Dictionary of Statistical Terms*, by Kendall, M. G., and Buckland, W. R., 2nd ed., 1960, London: "A transformed value of a dose or a response (e.g. logarithm or probit) obtained by using a transformation equation that is independent of all parameters." Here the term parameter is being used to denote a characteristic of a probability distribution which may be estimated from data but is not otherwise known.—Ed., *B.M.J.*

Vaginal Specula

SIR,—I was interested to see the letter from Mr. Bryan Williams (16 April, p. 984) in which he describes his improvement on the standard Cusco speculum by increasing the length of the posterior blade to 5½ in. (13 cm.).

I have always found the Winterton bivalve speculum superior to the Cusco because both blades are 5½ in. It is, however, narrow and when used on the multipara with prolapse the redundant vaginal wall bulges between the open blades, restricting one's vision of the cervix.

In pregnancy, however, I have found neither instrument satisfactory, as the cervix almost invariably gets tucked into the posterior fornix. To overcome this A. L.

Hawkins & Co. modified Winterton's speculum for me so that the posterior blade is 1 in. (2.5 cm.) shorter than the anterior, quite contrary to the normal vaginal anatomy. Passed, however, into the anterior fornix till resistance is felt, this tends to bring the cervix forward into the axis of the vagina. On opening, the posterior blade misses the cervix and holds back the posterior vaginal wall. A long posterior blade would tend to exaggerate this posterior position of the pregnant cervix.

It is obvious that the type of speculum must be suited to the particular patient.—I am, etc.,

Aberystwyth.

GEOFFREY WILLIAMS.

Contact Lenses and Oral Contraceptives

SIR,—I was very interested to read the report of Dr. G. A. Caron's case (16 April, p. 980).

I have not seen any instances of corneal oedema in association with contact lenses due to oestrogen therapy. I have, however, seen corneal oedema supervening in a case successfully fitted with scleral lenses during the patient's pregnancy. The case followed much the same course as Dr. Caron's: the oedema disappeared after the contact lens was discontinued.

The cornea partakes of water retention due to electrolyte imbalance in the rest of the body, especially if its mechanism of dehydration and homeostasis is stretched, as happens with the wearing of a contact lens. The electrolyte imbalance could be local or general, nervous or hormonal, etc.

I gave instances^{1,2} of local electrolyte imbalance causing corneal oedema in the papers entitled "Some Observations on the Physiology of the Cornea" and "Factors in the Genesis of Corneal Oedema."—I am, etc.,

Oxford.

M. SARWAR.

REFERENCES

- ¹ Sarwar, M., *Trans. ophthalm. Soc. U.K.*, 1953, **73**, 547.
² — *Amer. J. Ophthalm.*, 1955, **40**, 37.

Duodenitis—Fact or Fancy

SIR,—Your leading article on duodenal inflammation (25 December 1965, p. 1501) is very instructive. We would like to point out remarkable dissimilarities among the groups of cases described as "duodenitis" by various workers.

Beck and his colleagues¹ cases of "duodenitis" had "perfectly normal duodenal bulbs" on radiological examination. They had not displayed the radiological features of a spastic irritable duodenal bulb with coarse mucosal folds (as appears from your comment). These cases had a normal output of gastric acid. They are quite distinct from those of Ostrow and Resnick,² which showed radiological abnormalities and were usually associated with hypersecretion of acid. The only common feature was presence of abdominal pain closely simulating duodenal ulcer.

Raju and Narielvala³ reported radiological evidence of "duodenitis" with "intensity of changes varying from mild to severe" in all their 59 subjects with hookworm infestation but without anaemia. Their cases were "infrequently" associated with pain resembling chronic duodenal ulcer and had normal