hours, during which 5 lb. (2.3 kg.) of ether was administered by the communications officer.

My late chief James Sherren, of the London Hospital, a recognized authority on abdominal surgery, always emphasized that no case of acute appendicitis in an adult would prove fatal if treated by starvation and morphine. An abscess might develop, and if necessary be drained by means of a simple incision. Children are in a different category, as their resistance to infection is less than that of adults, and their short and flimsy omentum is not sufficiently developed to reach the right iliac fossa and so circumscribe the spread of inflammation. It is my conviction that conservative treatment of acute appendicitis in an adult is far safer, although less theatrical, than an improvised operation by an unqualified enthusiast, or even by a medical man with inadequate surgical experience.—I am, etc.,

London, W.1. McNEILL LOVE.

REFERENCE

1 Love, R. J. M., *The Appendix*, 1947. H. K. Lewis, London.

Viruses Made to Order

SIR,—Your leading article (*Journal*, February 16, p. 390) draws attention to an aspect of biological and medical research which may undoubtedly bring great benefits to mankind in due course. However, it may also lead to terrible suffering if such research is taken up by the bacteriological warfare departments of various nations. Once it has become possible to change the structure of a virus all previously acquired immunity to it would disappear, and one could imagine with horror a changed influenza virus let loose upon an unsuspecting country by an enemy who had carefully inoculated his own troops and population against it.

I understand that work is going on at present in Australia to change the myxomatosis virus in order to kill those rabbits which have become immune to the established virus. While this research appears useful to mankind, it would be terrible if it should become the prototype of other similar but more dangerous experiments.—I am, etc.,

London, W.C.1. A. R. MICHAELIS, Editor, *Discovery*.

Mongolism in Siblings

SIR,—More than one mongol in a family may not be as rare as is suggested by Dr. Freda M. Paul's letter (*Journal*, January 26, p. 212). In our practice of just over 3,000 patients, of five families with mongol children, one family has two; and one of us remembers another family of two.

A mother born in 1910 gave birth to a boy in 1944, who died at three weeks from convulsions. In 1947 and in January, 1950, she had normal girls, who are still thriving. In September, 1950, she had an early miscarriage, and in 1951 her first mongoloid child, a boy, was born. In February, 1952, there was a second miscarriage, and in December, 1952, a second boy mongol. Both mongols are in good health and free from other congenital abnormality.

This mother gave birth to mongolian children late in her reproductive life, but the usual long period of sterility preceding them both was absent. Rather might one suggest that the rapid succession of her pregnancies did not give time for preparation for normal maturation of gametes or ovum.—We are, etc.,

MARGARET DUDLEY-BROWN.
York. L. JOAN LETTY.

Living with a Colostomy

SIR,—Your leading article on living with a colostomy (*Journal*, February 2, p. 274) should do much to enlighten the ignorance and indifference—still all too prevalent—of all concerned, be they patient, surgeon, physician, or nurse. May I, an active surgeon for some forty years, and by no means passive patient for three years, comment, suggest, and advise?

In the strict sense of the word, we have no methods of gaining control of the colostomy. The sphincterless colostomy is impotent, uncontrollable, and incontinent, and will remain so until some ingenious surgeon devises an adequate and controllable sphincter such as is present at the normal exits of bladder and bowel. Restriction of roughage may result in vitamin deficiency with bowel looseness. This remote risk can be prevented or remedied by judicious intake of vegetable and "forbidden fruit" juice, yeast, etc. Other factors hitherto little appreciated deserve consideration—body build, previous bowel habit, mental make-up, climatic conditions, etc. Those of sthenic build possess a relatively shorter and more active colon than do their counterparts, the asthenic visceroptotics. The intestine, like other organs and tissues innervated by the autonomic system (well named sympathetic), is both sensitive and reactive to emotional states—worry, anxiety, trepidation, etc. A true sense of humour inhibits or minimizes both cause and effect, and enables one to face and cope with most situations with equanimity. Chilling should be avoided. The colostomite in these circumstances is more prone to suffer from diarrhoea.

I neither require nor use drugs of any kind, nor have I ever had a wash-out. Inhibitory drugs, I found, simply postpone the inevitable evacuation, which is likely to be more bulky or even a "gusher." Tea and coffee with lots of energizing sugar are well tolerated, so is whisky (with a little water), which diminishes the effects of emotional disturbances and helps to maintain morale. As a practical adjunct to the armamentarium of all colostomites I most strongly advocate the inclusion of an ordinary glass jam-jar, the use of which, I have found, ensures confidence and comfort and substantially reduces the amount and cost of dressings. After breakfast I go to the bathroom for shaving, etc. There, by a very simple adjustment of my belt, I fix the jam-jar over the colostomy, and with complete comfort and confidence proceed to do two things at once. A little gentle massage or squeezing over the terminal subcutaneous inch or two of the pelvic colon stimulates desirable activity. On my person I carry a spare dressing, and in my car the same, plus jam-jar. Thus all emergencies can be anticipated and in most circumstances circumvented.

I learned a lot as a patient in bed. I am convinced that ritual heavy-handed rubbing and scrubbing of bony prominences does more harm than good. Frequent change of posture and position, as is normally exercised and accomplished by the healthy and strong, is all that is necessary to prevent bed-sores, thrombosis, pulmonary oedema, etc. But so tightly was I tucked in that I could hardly move or breathe in freedom or comfort until I took evasive action. My bed was uncomfortable: it sagged so that I had no support between pelvis and heels. I demanded a soft pillow which when supine I placed under my thighs and when in a lateral position used as a very comfortable inter-knee pad. Somewhat to the chagrin, I suspect, of all concerned (to whom I am most grateful) I made a complication-free and rapid recovery.—I am, etc.,

"COLOSTOMY."

Distribution of Red Bone Marrow

SIR,—I had occasion recently to look up the accounts of the distribution of red bone marrow in long bones given in the common textbooks of anatomy used by students to-day. The results were surprising and exemplify the considerable delay which may occur before recent work of immediate use to the student is made readily available in his textbooks. Since much discussion centres round the teaching of anatomy, may I beg the hospitality of your columns to illustrate my point?

Gray's Anatomy, 1944.[1]—Marrow is red "in the articular ends of long bones." *Gray's Anatomy, 1954.*[2]—"By the age of twenty the medullary cavities of the long bones, the spaces in the spongy substance of their extremities . . . are . . . occupied by yellow marrow." *Cunningham, 1951.*[3]—"At puberty the red marrow is found only in the spongy bone; and, as age advances, it is replaced by yellow marrow in the spongy bone of peripheral parts—distal ends of long bones and the lower part of the backbone." *Buchanan's*