A Mouthful of Wire

SIR,—The letter from Miss Mabel E. Carter (*Journal*, August 7, p. 361) asking for opinions on the desirability of orthodontic treatment in school-children prejudges the issue by its tendentious tone and might well provoke an acrimonious debate on the whole subject unless ruled out of place in a medical journal.

May I, as one having a foot in both camps, medical and dental, endeavour to answer the question whether treatment is medically justifiable? Generalizing is impossible, but in a great many cases failure to correct deformities may saddle the child with a permanent disfigurement which at best is a source of constant mild regret and at worst may be a severe psychological handicap. On the physical side, though these irregularities do not often hinder mastication seriously, they may, and often do, lead to premature loss of teeth either from direct trauma when incisors impinge on the gingivae of opposing teeth, or from gingivitis leading to pocketing and the usual sequelae. As regards the specific disadvantages mentioned, Miss Carter's experience must be exceptional or her case overstated. The average appliance does not "afflict" the child. It is common for a young patient, inspired no doubt by the competitive spirit, to express a lively hope that a plate will be necessary, and equally common for him to feel unnatural and even uncomfortable when not wearing it. Only in a minority of cases does an appliance affect speech for more than the first few days of wearing it. Eating in some cases may be impeded during a short stage of treatment where the act of biting is utilized to produce tooth movement, but most appliances which would interfere may be taken out for meals, and no fixed apparatus if properly designed should hinder mastication.

The frequent adjustments referred to are presumably those carried out by the child; these are necessarily extremely simple, effected in seconds and at regular stated intervals. Adjustments carried out by the orthodontist are only frequent in exceptional cases; obviously no dentist would wish to bring the child from school to his surgery if it could be avoided. Wires do break, since the need for gentle pressure requires that they shall be slender, but this is not in my experience a frequent mishap, and in only a minority of such cases is there resulting discomfort necessitating an emergency visit. Only too often such breakages are only discovered by the dentist at the end-of-term visit.

In short, though all the horrors enumerated by Miss Carter *can* occur in isolated cases they are not necessary hazards of treatment and taken in the mass they are exceptional, especially now that an increasing number of cases is being treated by the Andresen appliance, which is suitable for several varieties of irregularity, is worn at night only, has no delicate parts to bend or break, and places no strain on child or teaching staff. As a postscript I might add that I have just shown Miss Carter's letter to the mother of a patient, and her only comment was that the irritable and tearful children mentioned would probably be types who would have been so in any case.—I am, etc.,

London, W.1. N. J. AINSWORTH.

SIR,—Some sympathy must be extended to Miss Mabel E. Carter (*Journal*, August 7, p. 361) as the headmistress of a boarding-school in her difficulties with those pupils who are wearing orthodontic apparatus. To some extent the problem is more peculiar to this country than in any other, because in our educational system we make greater use of the boarding-school, many of them being in rural areas far from dental facilities. A headmistress is therefore *in loco parentis* for some nine months of the year.

The fact that a child has irregular teeth means that their positions are the visible manifestation of errors in bone development even to the extent of actual deformity. The object of undertaking orthodontic treatment is an attempt to produce a functional oral cavity, thereby reducing the risk of dental caries and paradontal disease. It must not be forgotten also that for psychological reasons—and these certainly apply to a woman—aesthetics are important. Whereas the dentist is attempting to influence dental development, the headmistress is concerned with mental development, and she is naturally irritated with anything which disturbs the school routine. Miss Carter, in her position, must accept the fact that regular adjustments of apparatus are almost always necessary, but she may recently have had the misfortune to have had charge of certain children discovered after the fitting of appliances to be "breakers." Such patients have a remarkable facility for damage and loss.

Orthodontic treatment is not a "new craze," neither should it be considered an "affliction" on the child. It must be viewed within the general picture of prevention, control, and repair of child dental health. It is recognized and appreciated by the dental profession that the interest and care of the teaching profession in dietetics and development during the dental formative period is invaluable to the dental future of the adult.—I am, etc.,

London, W.1. PHILIP G. CAPON.

*** This correspondence is now closed.—ED., *B.M.J.*

Chlorpromazine and Jaundice

SIR,—The toxic effects of chlorpromazine upon the liver (without actual jaundice), recorded by Garmany *et al.* in their article (*Journal*, August 21, p. 439), are of particular interest to me, for two patients in this practice, while taking chlorpromazine, developed manifest jaundice.

A man aged 56 years, suffering from an anxiety neurosis, was given "largactil" 100 mg. daily. After 22 days' treatment he suddenly developed pyrexia, reaching 102° F. (39° C.) and over, which continued for four days. On the fifth day his temperature subsided to normal, and at the same time jaundice became apparent and persisted for three weeks. Another patient, a woman aged 66 years, who was under the care of Dr. A. J. K. Wilson (my partner) on account of a functional nervous disturbance and was having largactil, reported to him at the surgery with jaundice. She was then apyrexial, but it is not known whether there was pyrexia prior to the onset of the jaundice. The jaundice persisted for over two weeks.

The drug, which was being taken orally, was stopped in both cases when these untoward symptoms appeared, and both made a full clinical recovery from the jaundice. There was no evidence and no reason to believe that either of these patients had a pre-existing hepatic dysfunction, and the jaundice was attributed by us to drug toxicity or to a coincident infective hepatitis. The former supposition now receives support from the article referred to above.—I am, etc.,

Birmingham, 32. W. M. CHESNEY.

Genetic Patterns in Retinoblastoma

SIR,—I have been struck by the failure of the genetic patterns found in families afflicted with retinoblastoma to fit into any of the experimentally verified Mendelian modes of inheritance. Families have been described which show both "horizontal" and "vertical" patterns of affected individuals.[1,2] Thus retinoblastoma may occur in successive generations, being passed down as though it were a dominant trait. In other instances the trait may be found in several members of a sibship, the parents being apparently unaffected, thereby giving the appearance of a recessive trait. Some families have shown both "horizontal" and "vertical" patterns. Several investigators have postulated that retinoblastoma represents a single dominant gene, which, for reasons as yet unknown, does not always find expression. The latter phrase permits one to invoke somewhat rhetorically the status of a Mendelian dominant.

I have wondered if another avenue ought not to be explored. It is the possibility that the appearance and disappearance of retinoblastoma in families is analogous to the similar behaviour of the bar eye mutation in the fruit fly *Drosophila*.[3-6] This mutation involves reduction in eye size and partial blindness in the affected fly. Although this