

in the JOURNAL (February 7th, 1925, p. 273) in an annotation entitled "A new motor danger." Reference was again made in the JOURNAL (March 6th, 1926, p. 442) to tetra-ethyl lead, in which emphasis was laid upon the particularly dangerous character of lead by reason of its capacity to produce cumulative effects, and thereby the very extensive and irreparable damage which might be produced before the first symptoms of poisoning appeared.

Switzerland took the lead in 1925, and boldly forbade the use of motor spirit containing any compound of lead (Ordinance dated April 7th, 1925). In America its use is permitted subject to regulations which provide for the giving of notice to the purchasing public and to garages that it is a poison, and must be handled with appropriate precaution; this despite the reports made by the following observers: (A) Robert A. Kehoe, on tetra-ethyl lead poisoning: "Clinical analysis of non-fatal cases."<sup>1</sup> (B) Charles Norris and Alexander O. Gettler on poisoning by tetra-ethyl lead: "Post-mortem and chemical findings."<sup>2</sup> (C) Frederick Flinn: "Some of the potential public health hazards from the use of ethyl gasoline."<sup>3</sup> Report B is an independent official record. The investigations and findings embodied in Reports A and C were made at the instance of the manufacturers themselves, who, in short, convict "ethyl gasoline" out of their own mouths whilst giving the clearest evidence of the grave dangers to all individuals concerned who may use this material—namely, motorists and workers in garages.

There are two aspects of this matter to which reference, curiously enough, has been omitted by all observers: the toxic influence of lead upon the gonads in both sexes, and the possibility of criminal misuse of this material. A third point for consideration is the character of the deposit in the exhaust system following the use of tetra-ethyl lead in conjunction with organic halides, which must give rise to the formation of lead halides in the engine and in the exhaust system. These lead halides (chloride, bromide), being comparatively soluble, are obviously toxic.

Legislation and regulation upon this subject are urgently called for to govern not only the concentration of tetra-ethyl lead in petrol, but also its distribution. The public should be instructed and warned in the handling of this material as in the case of all other poisonous substances. The potential users of this toxic product number over a million adult persons, the thousands of employees in garages being specially exposed to danger by continuous handling.—I am, etc.,

Hendon, N.W., Jan. 3rd.

MYER COPLANS.

\*\* Further references to this subject will be found at pages 61 and 64 this week.

#### TREATMENT OF CANCER BY RADIUM.

SIR,—My letter in your issue of December 17th, 1927 (p. 1163), raised a definite question—namely, the specific grounds on which Dr. Fletcher Shaw bases his criticism of radium in the treatment of carcinoma of the cervix uteri.

He replies (December 31st, p. 1244) by giving his own and Bonney's statistics, and suggests that British radiology might at least have furnished statistics on similar lines for radium. For their achievements and sins I have, as Dr. Fletcher Shaw knows, no responsibility, but I have a right, as one who is actively engaged in radium work, to suggest that many workers are not ignorant of a technique which has given results equal to those of surgery, even though it may not be a product of the particular clinic to which one is attached. (In parentheses I might add that the protagonists of British radiology in the past could easily retort to Dr. Fletcher Shaw's preference for British statistics by pointing out that a survey of all the literature on abdominal hysterectomy revealed an almost equally preponderating amount of foreign statistics.)

If I have implied in my original letter that radium is preferable to operation in operable cases I should like to correct it, because my personal experience is neither sufficiently wide nor lengthy. On the other hand, I do hold that in criticizing a statement made in a leading article of

a responsible medical journal the exact grounds of criticism should be given, that the whole weight of evidence—local, national, and even foreign—should be taken into account, and that personal experience be given its true value in relation to the whole.

Dr. Fletcher Shaw on a previous occasion<sup>1</sup> stated that he "clinically had concluded that radium was not of much value;" and I suggest that this should be taken into account in assessing the true value of his criticism. I admit that in an analysis of his cases he softened the blow by saying that 41 per cent. of his cases treated by radium before operation were alive and well, as compared with 32 per cent.

Some of us are not insensible to the deficiencies of local conditions, but revolutions, such as have occurred in a comparatively short space of time, have not as a rule resulted in Utopian conditions.

Finally, I need hardly refer for serious consideration the admirable analysis of world statistics on cancer of the uterus (Reports on Public Health and Medical Subjects, No. 40), in which the whole of the evidence for and against is discussed.—I am, etc.,

Manchester, Jan. 7th.

G. E. BIRKETT.

#### ISOLATION FOR MEASLES.

SIR,—Your correspondent Dr. F. J. Child (p. 33) states that it is perfectly safe for an uncomplicated case of measles to mix in society fourteen days after the first appearance of the rash. May I state that in the Memorandum issued jointly by the Ministry of Health and the Board of Education in 1927, on the closure of and exclusion from school, the period of exclusion is three weeks from the appearance of the rash. This, I take it, is the official view and the one generally accepted.—I am, etc.,

Stourbridge, Jan. 7th.

GEOFFREY DUDLEY, M.O.H.

#### THE DURATION OF PREGNANCY.

SIR,—The following notes, I think, are of interest. The case described adds weight to the idea that the period of gestation is ten times the normal inter-menstrual period, and emphasizes the possibility of an unjust verdict being given in a case of legitimacy or affiliation where the medical evidence is that the child in question is "full time," meaning, presumably, being born after a period of 273 to 280 days.

On April 7th a patient, aged 30, presented herself at my surgery complaining of foul vaginal discharge. I diagnosed a two to three months' pregnancy with a dead ovum. On April 10th I thoroughly curetted, removing a quantity of extremely foul pus and fragments of necrotic tissue, placenta, membranes, etc. The uterus was flushed with a hot solution of lysol and afterwards swabbed with tincture of iodine. During the following fortnight daily vaginal douches were employed to minimize the foul odour. The patient made a rapid and uneventful recovery.

On August 8th the patient complained that she had not menstruated since the curettage and that the abdomen was "swelling." On examination I would have diagnosed a five months' pregnancy, but, believing that to be impossible, I estimated the date of her confinement to be about the beginning of February. She gave birth to a daughter, after a perfectly normal labour, on November 27th. The child cried lustily at birth, had a good crop of hair, was well coated with vernix caseosa, measured twenty inches in length, and weighed 7 lb. The finger and toe nails were fully developed and the child sucked vigorously on being put to the breast. In every way it appeared to be a "full-time" child.

The baby was born 231 days after the curettage. Coitus would be wellnigh impossible for the first fortnight; the patient thinks it did not occur for at least three weeks. If that is true, it would give a gestation period of 210 days—ten times the normal menstrual period for this patient, who states that before her pregnancy she menstruated regularly every three weeks.

I have looked through a number of midwifery books and the shortest period I can find tabulated in arriving at the average duration of pregnancy is 253 days. The statutes of Scotland, France, and Germany are said to allow a minimum period of 180 days. Is the child of 180 days' gestation expected to be normal in size and development, or merely viable?—I am, etc.,

SIDNEY H. WADDY, F.R.F.P.S.Glas.,  
Huddersfield, Dec. 19th, 1927. L.R.C.P. and S.Ed.

<sup>1</sup> *Journ. Amer. Med. Assoc.*, July 11th, 1925, p. 108.

<sup>2</sup> *Ibid.*, September 12th, 1925, 818.

<sup>3</sup> *Journ. Industr. Hyg.*, February, 1926, p. 51.

<sup>1</sup> Report of proceedings of the Section of Obstetrics and Gynaecology of the Royal Society of Medicine, *Lancet*, October 23rd, 1926, p. 856.