

awarded), a quarrel between a cock and a hen merlin, an automatically obtained snapshot of a badger by night, and another medal-winning set showing the opossum and young. An exhibition is given of the various possibilities obtainable by the cine-Kodak special, by means of which new type of camera moving pictures of varying degrees of rapidity and ingenuity can be obtained for students of medicine and natural science. In the general sections the photographs are as good as ever, and reveal the way in which modern photographic art and science is steadily making advances on the best of the past. A remarkable instance of this is provided by "luminograms" of illegible documents in which, by the use of ultra-violet rays, the words in two documents dated respectively 1280 and 1307 from the Public Records Office have yielded photographs which can be read. The deciphering of charred documents in this way, and by infra-red rays, is also demonstrated, one most striking result being obtained by direct contact of the charred fragment with a film for forty days in the absence of light.

## CORRESPONDENCE

### Treatment of Syphilis

SIR,—Dr. T. Anwyl-Davies's article (*British Medical Journal*, September 9th, p. 487) on the treatment of syphilis in the primary and secondary stages by bi-weekly injections of arsenobenzenes of the "914" type, with concurrent bismuth injections, which he has employed for three years, is corroborative evidence of the great value of this method of treatment. Since 1924, at the Seamen's Dispensary, Liverpool, all suitable cases of syphilis have been treated intensively, and a full report of the method employed was published by my assistant, Dr. E. E. Prebble, with due acknowledgement of the pioneers in this routine, in the *British Journal of Venereal Diseases*, April, 1933. The necessity for regularity in treatment is there proved, and the record of ten years shows that no serological or clinical relapse has occurred in any case which has received two courses of the prescribed treatment.

The main factor in the most efficient treatment of syphilis is regularity of sufficient dosage plus as short an interval between injections as is consistent with freedom from severe toxic effects. Clinical experience shows that a total dosage of 0.75 gram "914" weekly, split into two approximately equal doses, with concurrent bismuth injections intramuscularly, will render the serum Wassermann reaction completely negative in all cases of primary and secondary syphilis, but that extension of the period between injections beyond four days reduces considerably the value of the course.

It would appear that the rapid elimination of the "914" group, as opposed to the "606" group, demands that the interval between injections should not exceed four days, otherwise spirochaetes left unkilld proceed to regions therapeutically inaccessible, or in some other way become resistant to ordinary treatment.—I am, etc.,

Liverpool, Sept. 18th.

A. O. Ross.

### Tuberculous Bacillaemia

SIR,—The statement in your annotation (September 16th, p. 538) that tuberculous bacillaemia "is probably limited to miliary cases and cases of advanced pulmonary tuberculosis" is not in accord with the clinical evidence. In disseminated lupus vulgaris the lesions arise in children in the course of some minor debilitating illness, and are attributed to the breaking down of a small tuberculous focus with dissemination of tubercle bacilli in the blood

stream. In erythema induratum (Bazin's disease) and the papulo-necrotic tuberculides, a multitude of lesions will arise over the course of years from the presence of tubercle bacilli in the blood stream. These affections, dependent upon a tuberculous bacillaemia, give rise to clinical manifestations by reason of individual peculiarities in the "soil," and it is difficult to believe that a similar bacillaemia does not commonly exist under similar circumstances without clinical signs, where those individual peculiarities are absent. Yet, in those states of lupus, erythema induratum, and the papulo-necrotic tuberculides, there is no serious evidence of ill-health apart from the skin manifestations, and certainly there is no suggestion of miliary tuberculosis or of advanced pulmonary tuberculosis.—I am, etc.,

Leeds, Sept. 18th.

JOHN T. INGRAM.

### Toxaemias of Pregnancy

SIR,—I am sorry Mr. Paramore is hurt (*Journal*, September 9th). I paid him the greatest compliment in my power by devoting a great deal of time over a period of two years to subjecting his hypothesis to experimental investigation. If a litre and a half of sterile liquid paraffin be introduced under local anaesthesia into the peritoneal cavity of a dog held in Pavlov's stand the intraperitoneal pressure returns to the normal about two hours after the injection is finished. Of course the intra-abdominal pressure is increased during exercise—bed-making included—and rises to well over a metre of water while straining at stool. Indeed, it is probable that if it were possible for a healthy man to maintain this pressure for half an hour he would commit suicide. In normal circumstances a high intraperitoneal pressure can only be maintained for a few seconds. I advanced (*Journ. Obstet. and Gynaecol.*, *British Empire*, 1932, xxxix, 854) other reasons for concluding that the intra-abdominal pressure is not significantly raised during pregnancy, and, with respect, I suggest that purely theoretical conjectures cannot be allowed to stand in the face of experimental evidence.

My view is that the hepatic lesions associated with eclampsia are merely incidental and may occur during the course of obstructed, and possibly normal, labour, without any toxaemic manifestations. The fact that the incidence of eclampsia in Germany was reduced during the last two years of the world war is probably due to the fact that the women ate more vegetables and less meat. I do not think that Mr. Paramore did me the honour of reflecting on what I meant by an adequate diet. While I am forced to disagree entirely with his views and have developed my thesis along widely different lines, I acknowledge with the greatest of pleasure the fact that he has stimulated me to investigate the mechanical factors introduced by pregnancy, which I believe to be of indirect importance, and am glad that we are agreed that there is no evidence of a pregnancy toxin.

I had read Dr. W. C. W. Nixon's paper, but it was impossible to refer to the enormous literature dealing with the wide field I attempted to cover. I used intramuscular injections of calcium chloride in 1927 and 1928, before I was able to obtain calcium gluconate. Having seen a considerable number of cases of eclampsia I am completely unable to understand how it is possible to assess the value of any single therapeutic agent which may be used. In 1930 (*Proc. Roy. Acad. Med.*, Sect. Obstetrics and Gynaecology, May 19th) I wrote, "Startling results can hardly be expected from any line of treatment," and I would ask Dr. Nixon to ponder over the seized pistons of a motor car. Perhaps he will give his next eclamptic patient, after she has recovered from the