gastritis may be associated with an ulcer crater on the pyloric ring or in the prepyloric stomach. It is cured by vagal section yet the disease is commonly associated with absent free hydrochloric acid in the fasting juice and a low response to histamine. In vagotomy we have, in a sense, the right operation found for the wrong reasons. We must, therefore, not let low

acid findings deter us from using vagal section in the treatment of chronic peptic disease.—I am, etc.,

HAROLD BURGE.

West London Hospital,
London W. 8.

REFERENCE

- ¹ Butsch, W. L., *Proceedings of the Staff Meetings of the Mayo Clinic*, 1935, 10, 435.

Coagulation Failure in Pregnancy

SIR,—I have suggested (14 March, p. 691) that amniotic fluid can be implicated as a cause of clinical coagulation failure in pregnancy. It seems that amniotic failure does not merely contain a potent coagulant but is in addition a highly active and variable substance.¹

Uterine hypotonia appears to be a constant feature in cases of amniotic fluid embolism. Furthermore, Attwood and Landing² have found amniotic fluid in the veins of uteri removed for persistent postpartum haemorrhage, and occasionally it has been the only abnormal finding.³ If amniotic fluid does cause uterine hypotonia its effect could be central or local. If its effect is local one

single experiment, but the above does seem to corroborate the circumstantial evidence available.³ While present in an in-vitro system amniotic fluid increased the duration of contractions and diminished their frequency, but when removed from the same system it left the muscle in an atonic state. This could possibly indicate a dual effect, the dominant and more permanent one being that of inhibition. Could this be the basis of postpartum uterine hypotonia and also postpartum haemorrhage in those cases where no other case can be found?

It is interesting to note that numbered among the causes of postpartum uterine hypotonia are multiparity, multiple preg-

TRACING A.—Spontaneous uterine muscle contractions in vitro. TRACING B.—Effect of introduction of 5 ml. of amniotic fluid into the system. TRACING C.—Obtained when amniotic fluid was washed out of the system. TRACING D.—When synthetic oxytocin was introduced into the system.

could expect it to inhibit uterine muscle in vitro.

During an in-vitro study of uterine function amniotic fluid was added to a standard uterine muscle preparation.⁴ Tracing A shows spontaneous uterine muscle contractions. Tracing B shows the effect of the introduction of 5 ml. of amniotic fluid into the system. It can be seen that, while the duration of the contractions increased, their frequency diminished from one in every two minutes to one in every six. Tracing C was obtained when the amniotic fluid was washed out of the system. Spontaneous contractions did not return, and the muscle remained almost totally atonic until synthetic oxytocin (Syntocinon) was added (Tracing D).

Conclusions cannot be drawn from a

nancy, hydramnios, placenta praevia, and precipitate labour.⁵ These conditions are also associated with fatal amniotic fluid embolism. The histological findings of Attwood and Landing may not be coincidental. The relevance of amniotic fluid seems to be worth further consideration.—I am, etc.,

LOUIS D. COURTNEY.

Radcliffe Infirmary,
Oxford.

REFERENCES

- ¹ Courtney, L. D., and Allington, M., to be published.
² Landing, B. H., *New England Journal of Medicine*, 1950, 243, 590.
³ Courtney, L. D., M.D. thesis. 1970. Submitted.
⁴ Lewis, V., and Pybus, A., Unpublished observations, 1970.
⁵ Donald, I., *Practical Obstetric Problems*, 3rd edn. London, Lloyd-Luke, 1964.

Jet Vaccination

SIR,—Your leading article on jet vaccination (10 October, p. 64) leads me to question the safety of this procedure. The injector is not sterilized between injections, and in many cases it produces a small amount of bleeding at the injection site. The injector could thus become contaminated with blood, thus transmitting, for instance, hepatitis virus to subsequent patients.—I am, etc.,

M. G. KREMER.

Bracknell,
Berks.

SIR,—Your leading article on jet vaccination (10 October, p. 64) rightly deprecates the use of jet injection for primary vaccination with killed vaccines. But you miss one point which equally applies to booster doses, which you say can be given satisfactorily by jet injection. If all or part of the dose is injected subcutaneously, general reactions are likely to ensue, and the main advantage of intradermal injection is lost.—I am, etc.,

W. P. STAMM.

Royal Free Hospital,
North-Western Branch,
London N.W.3.

Attitudes to Psychiatry

SIR,—We were most interested to note the conclusions of a recent article "Attitudes to Psychiatry in the General Hospital" (10 October p. 106). However, like the authors, we have also wondered whether their methods led them to obtain a much rosier picture of the position of psychiatry than in fact really exists.

We base this comment not on speculation but on a preliminary examination of our own study of attitudes to psychiatry, which has just been completed. This study, which was designed and begun by one of us (G.P.M.) in 1967, has examined the change of attitudes to psychiatry within all the non-psychiatric staff of a district general hospital over a period of three years. We have, in particular, been attempting to look at the effect of a purpose-built 100-bedded psychiatric unit and day hospital on such attitudes. The unit has since 1966 served an urban and rural catchment population along the lines advocated in the 1962 Hospital Plan for England and Wales.

Our results, which we hope to report fully in the near future, indicate that, while some favourable attitude change has occurred, a great deal of uncertainty and prejudice remains. For example, there has been no significant change in the proportion of the sisters and administrative staff, who clearly agree they have "much less patience" with the mentally ill (40%), view the mentally ill as having "much less sense of responsibility" (50%), consider them "uncooperative and difficult" as patients (23%), and who advocate sterilization for severe mental illness (39%).

Two quite important differences in method may be responsible for the less favourable views we have obtained. Firstly, we attempted to preserve the anonymity of