answer to this is that new men buying practices, or coming in and setting up, exist in a definite amount determined by the number entering the profession from the medical schools each year. Accordingly, if a man throwing up general practice goes in for a municipal or State appointment, he takes one off any glut of new men there may be, and, unless the total number entering the profession increases, every man going into State work must inevitably mean one less in private practice somewhere.

Eventually more men will enter the profession as the average income goes up on account of increased public service requiring more men; but until that happens—and it will not happen at once—men already in the profession are going to have a better time of increased incomes, whether they themselves go into State work or not. In other words, even the transition period is going to be advantageous to the profession as a whole, and not deleterious.

There are other advantages which the proposed reform in Poor Law and public health administration must inevitably bring in its train, and conspicuous amongst these is the complete abolition of hospital abuse with the absorption of the voluntary hospital system, which must inevitably occur as the new hospital or infirmary for the poor is brought up to the present level of a good voluntary or charitable hospital. Charity will take the form, probably, of endowing medical and clinical research, while the State will supply one uniform and adequate system of hospitals, open to people with means fixed at a certain maximum level. The work done for these people will be properly paid for by the State to that portion of the profession occupying public appointments. There will be correspondingly less men in private general practice, practising under certainly better conditions amongst people who are able and willing to pay them.

Under such a system hospital abuse cannot exist; in the first place, there are no subscribers to worry both medical staff and lay committee into bowing to demands or supplications from wrongful participants; in the next place the people below a certain standard of means using the State hospitals cease to be a part of the *clientèle* of the private practitioners, who will be less numerous. Such cases will now belong to the men in the State service, who are paid by the State for attending to them.

The advantages to the community of such an adequate national system—in preventing the very poor from infecting other classes with disease and establishing a better national health and sanitation—are too obvious to require elaboration.

Were such a system in existence, legislation could be pushed forward to enable the profession to deal with disease, and especially infective diseases of a chronic type, in a way hitherto undreamt of, and, by complete and efficient segregation, some diseases which vitiate our community and kill off the best of our children and citizens could be entirely swept away, or reduced to such a state of subjection as are at the present time small-pox, cholera, typhus, and typhoid.

Can we not, then, seeing that the people's cause is our cause and their service our service, band together to head this movement towards better health and sanitation which social reformers are now leading past us, snatching away the palms which should be ours? Let us be at the head of this movement instead of at the tail of it.

DR. JAMES EDLINGTON MCDUGALL has been placed on the Commission of the Peace for the City of Liverpool.

THE annual conference of the Child Study Society will take place at Tunbridge Wells on Friday and Saturday, June 10th and 11th. On Friday evening the President, Sir James Crichton-Browne, will deliver an address. On Saturday papers will be read as follows: On the hand as the gate of knowledge, by Sir John Cockburn; on the social life of a child at a co-educational school, by Mr. John Russell, Headmaster of King Alfred School, Hampstead; and on the child as citizen, by Mrs. Higgs. Further information can be obtained on application to Miss F. M. Watt, Honorary Local Secretary, 10, Lime Hill Road, Tunbridge Wells.

GASTROSTAXIS.

BY

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DR. CHARLES BOLTON's very interesting article in this JOURNAL for May 21st prompts me to give reasons for the belief that the condition of gastrostaxis, or oozing of blood from the interior of the stomach, exists. He, like many others, myself included, has "not the slightest doubt" that there is a disease, occurring chiefly in women between the ages of 20 and 40, characterized by pain, vomiting, and bleeding from the stomach, but he suggests that it is due to acute ulcers. Last year he supported the oozing view, for he said,¹ "Occasionally in young women . . . gastric haemorrhage is seen without any lesion of the mucous membrane being present to account for it. . . . Such cases have also been called gastrostaxis." If the oozing is fatal, minute erosions must occur, for the blood has broken through the epithelium.

Dr. Bolton mentions three cases in which bleeding was due to an acute ulcer, but one was a man aged 49 and another a woman aged 69, so that two of them hardly come within the limits of the disease in question. In the third an ulcer $\frac{3}{4}$ in. in diameter was found. It clearly could not, after the *post-mortem* examination, be confused with gastrostaxis; in none of these three was there any evidence that the bleeding came from more than a single point. In favour of the belief that oozing or gastrostaxis does exist, I would urge that the blood often in that condition comes from many bleeding points at once. For example, Dr. A. G. Gullan² showed at the Liverpool Medical Institution the stomach and intestines of a girl, aged 19, who had had all the symptoms of gastric ulcer, including haemorrhage. No ulcer could be seen in the stomach, but there were numerous small haemorrhagic erosions scattered over its mucous membrane and that of the duodenum and intestines. Dr. Herringham³ gives a case in which on opening the stomach after death several small areas were seen from which haemorrhage had occurred, but no ulceration. There were also haemorrhagic areas in the intestines.

Turning to cases observed during life, Mr. Eve⁴ speaks of seeing inside the stomach "small red points." Mr. Moynihan⁵ speaks of "bleeding from many tiny points"; "the mucous membrane weeping blood." In the series of cases I originally collected,⁶ in No. 5 blood was seen oozing from three different places. In No. 12 nothing abnormal was seen inside the stomach but a congested patch of mucous membrane. In No. 15 the stomach was deep red all over, with many bleeding points. In No. 16 bleeding points were found. In No. 20, in a small patch the oozing of blood appeared to come from a few minute points. In No. 24 a considerable number of bleeding points were seen. I have notes of a case communicated to me by Dr. A. E. Boycott. The patient, a woman, had two very severe attacks of haematemesis. During the second the stomach was opened and a large area of congested bleeding mucous membrane was seen. No local point of bleeding could be found to tie or excise, I admit that Dr. Bolton says that the finding of multiple bleeding points is no evidence against the acute ulcer view, because acute ulcers are sometimes multiple; but, in the first place, many acute simultaneously active ulcers are very rarely seen at an autopsy, and most of the descriptions which I have quoted, hardly describe active ulcers. An observer probably would not describe acute ulcers as a large area of congested, bleeding mucous membrane. And lastly, the chances that numerous minute acute ulcers would be all quite close to one another and all bleed at the same time must be remote. The opportunities for seeing this oozing from the stomach will become fewer, for surgeons, fortunately, rarely now open the stomach for haematemesis during the attack of bleeding; but I submit that the descriptions I have quoted support the view that oozing occurs.

Evidence from *post-mortem* examinations must be rare, as the condition is seldom fatal; indeed, out of 7,500 *post-mortem* examinations at Guy's I could only find 3 cases that could have been examples of gastrostaxis. Several observers, however, believe that they have seen fatal cases

of gastric haemorrhage in which no trace of an ulcer, chronic or acute, could be found; and although, before the presence of a minute acute ulcer can be denied, much care must be taken, it hardly seems likely that all these observers are wrong. I have seen one fatal case within the last four years. That was a woman who had been in the hospital several times for haematemesis. After death I made a careful examination of the stomach, and neither I nor any one else could see any evidence of an ulcer. Dr. Wilberforce Smith has kindly sent me notes of a similar case, in which he and two other doctors made a most careful examination of the stomach after death, and no ulcer or source of the bleeding, which during life was very severe, could be found. I must, however, admit that in neither case was the stomach photographed or examined microscopically. It is allowed that acute ulcers may form the initial stage of chronic ulcers; but if all the cases which some call gastrostaxis were examples of acute ulcers, we should hardly expect that chronic ulcers would be, as they are, judging by *post-mortem* experiences, equally common in men and women, for the condition described as gastrostaxis is far commoner in women.

From this evidence it seems that some at least of these cases of pain, vomiting, and haematemesis in young women are due to oozing of blood from the stomach, and may therefore be called gastrostaxis. We do not know the cause of it any more than we know the cause of epistaxis in young boys or menstruation in women. There is reason for believing that a similar oozing may take place from the vessels of the kidney and give rise to blood in the urine; probably some of the cases of suspected stone in the kidney in which none is found are instances of this. Several cases have been recorded lately of bleeding from the stomach in association with disease of the appendix, and although this is difficult to explain it is easier to imagine that some toxin from the diseased appendix, acting as an endothelial poison, would cause gastrostaxis rather than gastric ulcer, for we know that in toxæmia associated with disease of the liver (apart from portal congestion) haematemesis may occur without any ulceration of the stomach and rupture of minute gastric vessels is not rare in acute infective process, for of 172 cases of gastric ecchymoses found in the *post-mortem* room at Guy's Hospital in 68 the cause of death was an acute infective process.

My justification for this short note is that it may interest your readers, as Dr. Bolton has given reasons for doubting whether the bleeding was due to gastrostaxis, to supplement him by giving those in favour of that view.

REFERENCES.

¹ C. Bolton, *Clin. Journ.*, March 31st, 1909, p. 392. ² *The General Practitioner*, December 8th, 1906. ³ W. P. Herringham, *St. Bartholomew's Hospital Reports*, vol. xlii. ⁴ F. Eve, *BRITISH MEDICAL JOURNAL*, May 7th, 1910. ⁵ Moynihan, *ibid.*, January 29th, 1910. ⁶ Hale White, *Lancet*, November 3rd, 1906.

THE first of a special course of six demonstrations on the surgery of the nervous system will be given by Mr. Percy Sargent at the National Hospital for the Paralyzed and Epileptic, Queen Square, W.C., to-day (June 3rd), at 5 p.m. The course will be continued on June 8th, 10th, 15th, 17th, and 22nd, at the same hour.

THE Society of Medical Phonographers offers a prize of one guinea for competition amongst medical students for the best answers to three questions in medicine and surgery which are intended to appear in the August, October, and December issues of *The Phonographic Record of Clinical Teaching and Medical Science* (the organ of the society). The sole qualifications for entry are membership of the Society of Medical Phonographers and ability to read shorthand (Pitman's system). Answers to the questions may be sent in in ordinary writing, type-writing, or shorthand, at the option of the candidates. The competition will take place if not less than four student members enter for it. Entries must be received on or before July 7th by the honorary secretary of the society, Dr. A. Hill Joseph, 10, Cantelupe Road, Bexhill-on-Sea, who will be glad to receive applications for membership. There will be no entrance fee. Student members of the Society of Medical Phonographers pay a subscription of 5s. per annum, in return for which they receive the periodical and other literature issued by the society. Members of the profession pay a subscription of 7s. 6d. per annum. It is proposed later to institute another competition in anatomy and physiology.

THE DIFFERENTIAL CUTANEOUS REACTION IN TUBERCULOUS DISEASES.

BY

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AND

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IN October, 1908, Dr. Ladislaus Detre, of Budapest, speaking at the Washington Congress on Tuberculosis, proposed a modification of von Pirquet's cutaneous reaction. He suggested that by applying bovine and human tuberculin simultaneously it would be possible not only to determine the presence or absence of tuberculosis but also to determine whether the bacillus present was of the human or bovine variety.

We have been using this method for about eighteen months, and have now on record the results in several hundred cases. We think it may be of interest to record the first 250 consecutive cases, and to consider what conclusions may reasonably be drawn from the results.

The technique is simple. A 25 per cent. solution of old tuberculin (as prepared by Meister, Lucius, and Brüning) is made up with a diluent consisting of one part of 1 in 20 carbolic acid glycerine and two parts of normal saline solution. The solutions are kept in three pipette stoppered bottles containing respectively the diluent for control, bovine, and human tuberculin.

On the right forearm is placed a drop of the diluent, and at some distance a drop of human tuberculin, and the skin is scarified through each drop with a straight Hagedorn needle. The solutions are then rubbed in with the needle. The left arm is similarly treated with bovine tuberculin. A different needle, which is kept in alcohol, is used for each solution.

If a reaction occur, a small red papule appears in twenty-four hours, increases in size for three or four days, and then gradually fades in about a week, leaving in some cases a slight desquamation or pigmentation. In a few cases the papule becomes vesicular, and in still fewer the reaction is delayed until the fifth or sixth day. The control should show no reaction on the third day.

In analysing the results of the first 250 cases it must be borne in mind that in every case there was some reason to suspect the presence of tuberculosis. Seventy-nine cases were certainly tuberculous, in 42 cases the diagnosis of tuberculosis was highly probable, and in 129 cases there was no evidence of tuberculosis other than the reaction when present.

The accompanying tables (p. 1349) contain an analysis of our results:

1. All cases certainly tuberculous gave one or both reactions, with one exception, namely, a case of tuberculous meningitis in which tubercle bacilli were found in the cerebro-spinal fluid. This patient died.

2. Of cases probably tuberculous, one or both reactions were present more frequently where the probability was greater than where the probability was less.

3. In cases suspected of tuberculosis, where there were no definite diagnostic signs, one or both reactions appeared more frequently after the age of 15 years and most frequently in patients over 45 years of age. It is obvious, however, that the probability of any individual being tuberculous increases with his age.

3. In the pulmonary cases, of those certainly tuberculous 2 gave a bovine reaction, and 22 both reactions. Of those almost certainly tuberculous 2 gave a human reaction, 1 a bovine, and 39 gave both reactions. In these two groups, of 66 patients examined 61 gave both reactions, which in 28 cases were equal, in 17 cases the human, in 16 cases the bovine being greater; 2 gave the human reaction only, and 3 the bovine. In all cases some reaction occurred.