A Table of 138 Irritable Heart Cases.

Class of Discharge.	Number of Patients.	Average Age.	Seen Foreign Service.	Seen Home Service only.	Chorea or Rheumatic Fever.	No Chorea or Rheumatic Fever.	Usual Duration of Symptoms.	Average Stay in Other Hospitals.	Average Stay at Hampstead.
Categories:									
a	25	25	21	4	0	25	1-6 mths.	Months 3	Months 1½
b	31	26	25	6	0	31	4-12 mths.	4	2½
c	9	26	5	4	4	5	1-3 yrs.	3½	2
d	24	29	19	5	7	17		3	2½
Permanently unfit	49	25	30	19	16	33	Several years	4	2

The proportion of favourable results is highest amongst men who have broken down in health on active service. Men who develop their symptoms while training at home are distinctly unfavourable subjects.

The prevalence of rheumatic or choreic history amongst cases of "irritable heart" is too high to be a matter of coincidence (19 per cent.); it suggests the presence of early rheumatic heart lesions in many of these soldiers. Patients in whom there is such a history rarely reach the higher grade exercises, though their physical signs do not noticeably differ from the remainder. The majority have to be discharged as permanently unfit; a few are returned to duty in categories c and d.

A striking feature of the table is the relation between the duration of the symptoms and subsequent events; 46 per cent. of irritable heart cases give, on careful inquiry, a history of symptoms dating back prior to enlistment. The longer the history the worse the prognosis; patients in whom the history is of years' standing make little progress; those soldiers are most likely to return to duty in whom the history is of a few months' duration.

THE EXERCISES AS A THERAPEUTIC MEASURE.

The exercises have an undoubted value as a therapeutic measure. Improvement of the symptoms, objective and subjective, is in many patients rapid and conspicuous. Physically and mentally the men benefit. Some improvement is the rule in most of our patients. Many other remedies have been resorted to, and none has proved efficient, to our knowledge. In agreement with other observers we find confinement to bed and lack of occupation to be detrimental. If circumstances permit, we propose to publish further memoranda† on this subject in the future. For the present we are content to record our chief conclusions—namely, that in sorting patients for discharge as permanently unfit, or in returning them as fit for duty in the several categories of the Army Order, a system of graduated exercises is the only reliable means at our disposal when patients with clear signs of serious heart affections have been eliminated; and such a system is also of distinct therapeutic value.

* The figures of our tables are somewhat but not greatly misleading in this respect, for a history of rheumatic fever or chorea has been taken into account in a number of cases when considering the question of discharge.

† A number of independent researches are being carried out at the hospital; they are inquiries bearing upon the causation of the affection, and inquiries into the effects of remedies; many of these are progressing to completion, and we hope to publish our observations in the near future.

THE estate left by the late Dr. John B. Murphy of Chicago is valued at 1,125,000 dollars (£225,000), of which £200,000 is in real estate.

It has long been felt by the medical profession in the United States that the establishment of a standard examining body for the whole country is desirable. That feeling led in 1915 to the formation of the National Board of Examiners, the purpose of which is to establish a standard of examination and certification of graduates in medicine for the licence to practise. The board is to consist of the surgeons-general of the army, navy, and public health services, one representative from each of the Government services, three representatives from the State examining boards, and six members chosen from the profession. The head quarters of the board are to be at Washington.

NOTE ON AN ANTENATAL OR PREGNANCY CLINIC AT THE EDINBURGH ROYAL MATERNITY HOSPITAL.

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SINCE it would appear that in some minds doubts have arisen regarding the value of antenatal or pregnancy clinics, and of a differentiated prematernity department in connexion with or included in a maternity hospital, it may be well simply to describe such a clinic and demonstrate its relations with the maternity hospital and prematernity department.

Some objection has been taken to the word "antenatal." It has been stated to be a comparatively new and an objectionable word, compounded of an adverb and an adjective. Sir James Murray, however, in the *New English Dictionary*, lists it, has no criticism to make upon it, and does not even indicate it (in 1888) as "not-naturalized." Further, the word has been used by authors of repute. Thus Shelley, in 1817, in his poetical fragment *Prince Athanase*, wrote:

Some said that he was mad, others believed
That memories of an antenatal life
Made this, where now he dwelt, a penal hell.

Kingsley, too, in 1848, referred to "heaven, my spirit's antenatal home"; and Farrar in 1879 in his *Life of St. Paul*, spoke of the "antenatal predilection for Israel and detestation of Esau." None of these men would be refused a claim to the title of a literary man, but De Quincey is admitted by all to be a prince amongst the writers of English prose, and he penned the following passage: "All necessity for supposing immediate impressions made upon our understandings by God or other supernatural, or antenatal, or connatal, agencies, is idle and romantic." When, therefore, in 1892 I employed the word "antenatal" in the phrase "antenatal pathology," as a convenient and suitable designation for the department of scientific medicine which should contain all the morbid states found in existence before birth, it appears that I was following the example of the poet, the novelist, the divine, and the justly admired man of letters. I could, of course, have called it the department of teratology, of fetal pathology, and of morbid heredity; but I was looking for a comprehensive name under which to group all the pathological developments of the life before birth, and I am inclined to maintain that I found it. Its extension, first to antenatal hygiene, then to antenatal treatment, and latterly to antenatal clinics could hardly have been stayed by me even had I desired to lay an arresting hand on it; but surely no one can possess an intelligence so curiously mis-orientated as to imagine that antenatal clinics for expectant mothers mean opportunities for the examination of these mothers before their birth. An antenatal clinic is concerned with the investigation of the health or sickness of the antenatal life within the mother as well as with the health or disease of the mother herself, both of which are of course intimately bound up with the unborn infant's wellbeing. At the same time, I am unwilling to differ from any man on so microscopical a matter, and if there is a general desire that these clinics should be termed "pregnancy," "prematurity," or even "gestational," I shall be ready to join in calling them so; but the terms "antenatal pathology" and "antenatal hygiene" are too useful and too well established to be sacrificed for the sake of pedantic purism. As a matter of fact, I have myself employed "pregnancy clinics" now and again as a convenient, if rather ungraceful, synonym.

The particular antenatal clinic which is here to be described was held in the Edinburgh Royal Maternity Hospital on July 25th, 1916. In conducting it I was assisted by two resident medical officers (one of whom is qualified), and by two sisters, one of whom holds the diploma of the C.M.B., and has had an extended experience in dealing with pregnancy cases both inside and outside the hospital. On this day there were fifteen patients in attendance, and this was above the average (between eight and nine) for July. It turned out that one of the women, an albuminuric case, had formerly been in the hospital, but was not now pregnant; and she was dealt with as a puerperal patient. Fourteen pregnancies were therefore left to be investigated.

In each case the urine was tested, the past history

entered in the book for the purpose, the present state both of the general systems and of the reproductive organs was investigated, and the birth canals measured and examined by the hands and sometimes by the pelvimeter. Thirteen of the women were attending for the first time, and one had been at a previous clinic. In her case there was a history that in previous pregnancies the baby had died a week or two before labour; she was now coming to the clinic each week in order to have the fetal heart counted; the occurrence of any irregularity in the heart will be the signal for admission and the induction of labour; and in the meantime tonic medicines are being administered to the mother and her health watched over.

[A fortnight later this patient was admitted to the prematernity ward as she was growing weaker and suffered from grave depression of spirits; two weeks after this the fetal heart showed signs of failure, and induction was begun; most unfortunately, it was then found that she had absolutely central placenta praevia, and, although she did not lose an excessive quantity of blood, she died soon after delivery from exhaustion. The placenta was markedly diseased as well as praevia. This was the only placenta praevia lost.—Note added September 16th, 1916.]

Of the thirteen new cases, four were found to be normal in practically all respects. To them a few words of advice were spoken, to each a copy of the little green book entitled *Hints to the Expectant Mother on her Health* was given, and each was invited to return should any uncomfortable or unusual conditions develop. Amongst the nine remaining cases there were five in which the pelvis seemed on physical examination to be narrow; two of them were clearly cases for induction of premature labour, and were told to come back in a month and three weeks respectively for this. But the other three were difficult cases on which to decide, and were asked to come in the morning and to be prepared for examination under an anaesthetic. Accordingly on the following day I examined them under chloroform. One (within a few days of term), whose pelvis I found to be too contracted to permit of the delivery of a living child, I operated on by the Caesarean section within a week, and got the best result for both infant and mother. The second I found to be suitable for the induction of premature labour, and a few days later Dr. Oliphant Nicholson, the assistant physician, successfully delivered her of a living 7 lb. baby. The third, a primipara, was discovered to have a pelvis near enough to the normal to justify waiting till the supervention of pains at term.

Four cases were left. One of these women was found to have swelled feet, and a rectum so tightly packed with faeces that she was asked to wait behind after the clinic, was given an enema, and was made much more comfortable than she had been. She had no albumin in the urine and no heart trouble. Another had also swollen feet. In her case it was found that the fetal head was lying low and exercising some pressure; but since there was nothing else abnormal, and since she was near her date of delivery, she was allowed to go home. She was delivered normally a few days later and made a complete recovery. Another of the four had pulmonary phthisis as a complication of her pregnancy, and arrangements were made for suitable treatment outside the hospital. Finally, one woman stated that she had had some bleeding. No placenta could be felt, but she was taken into the prematernity ward, was thoroughly examined, and was watched. As, however, no haemorrhage recurred, and since she was anxious to go home, she was allowed to do so with instructions to return to hospital on the appearance of the slightest show. It had probably been a slight accidental haemorrhage.

The cases attending this clinic were not exceptional in any way; I have had others both much more interesting ones and more dangerous. It will be noted that there was not a single pre-eclamptic patient amongst them. For some unexplained reason eclamptic patients have been rare this summer whilst placenta praevia cases have been wonderfully common (the hospital dealt with nine in July). It was rather a large clinic of quite an ordinary kind. Yet I believe two infantile lives at least were saved, those in the case of two of the mothers who had marked pelvic contraction. In the one instance induction of labour could not very well have been postponed for a day if the child was to be saved; indeed, it weighed 7 lb., and could only be delivered by forceps. In the other case, the choice lay between craniotomy and Caesarean section, but had she, instead of coming to the clinic, appeared first after the

second stage of labour was initiated, I should in all probability have had to do craniotomy. As it was, I was able to fix my time, do the Caesarean section under good circumstances, and secure a living child and a completely convalescent mother. In each of those instances the prematernity beds were useful; they were also valuable in the haemorrhage case; and throughout the whole progress of the clinic one was conscious of their presence as a means of giving treatment, long or short, slight or important, to any woman who might require it.

There was, however, good of another kind, and in another degree, accomplished by this antenatal clinic. Advice was given to fourteen expectant mothers about their own health and their coming child's welfare. Even the four who were normal went away fortified by knowledge about themselves and about the danger signals by which they were to be warned they had not possessed before; several of the others had things done for them and arrangements made which were unmistakably for their future safety and their immediate comfort.

There can be no shadow of doubt that the differentiation of the prematernity work of a maternity hospital into a special department is a valuable advance in the obstetric hospital system of the country; even the giving to the ward, the clinic, and the patients the distinctive name of "prematernity" increases the respect with which the work is viewed and carried out by residents, sisters, and nurses, and it is an immense boon to the expectant mothers to know that they are not only always welcome, but have an inalienable right to attention in the department which is so named and set aside. Both prematernity beds and antenatal clinics are of great value, but they must exist alongside of each other in a maternity hospital if their full benefit is to be secured; they and their associated means and medical and nursing staff must be welded together into a prematernity department if they are to be really helpful. The most important, the central and essential part, without which all the other parts fall short of entire success, is the prematernity ward in the hospital.

SOME PRINCIPLES OF INVESTIGATION IN BLOOD-PRESSURE PROBLEMS IN HEALTH AND DISEASE.

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A STUDY of the literature of blood-pressure measurements cannot fail to impress the reader with the lack of method shown by some clinicians in the choice and arrangement of their observations. A measurement of blood pressure—in most cases the systolic—is chosen as an item in the routine examination of the physical features of a clinical case. Let us consider what knowledge is really obtained by taking the systolic blood pressure. The information obtained is no more than that during the period of observation the systolic pressure was equal to the weight of a column of so many millimetres of mercury; it may be a high blood pressure, it may be a low blood pressure, or it may be a normal blood pressure during systole. When the systolic pressure only is estimated, the maximum height to which the pressure rises during so many beats of the heart is given, but nothing whatever is shown as to how far it sinks during diastole, nor as to the extent of the swing of pressure between each diastole and each systole of the heart. In the laboratory to record the blood-pressure changes with the maximum manometer alone would be at once recognized as futile.

In recent years some observers have added an estimation of the diastolic pressure, and by subtracting the prevailing diastolic pressure from the prevailing systolic pressure a record of the pulse pressure range is obtained. To these data they have added observations on the rate of the heart beat and the rate of the respiratory rhythm.

When this information is available we have an isolated picture of the heart's activity, and can say that each contraction of the left ventricle is able to add to the existing diastolic pressure a certain increment of pressure, that this increment of pressure delivers a shock to individual organs, for example, the kidneys; that this shock is borne by the walls of blood vessels which are already under a certain measured existing and permanent strain, the diastolic pressure.