CASE IV.—Frank H. (Plate V., Fig. 1), aged six and a half years. Operated on at the Dublin Orthopædic Hospital, Sept. 16th, in the presence of Drs. Cranny and Baxter, and Mr. Baird, resident medical officer. The right leg was very much worse than the left, and was selected for operation; the left was reserved for treatment by gradual extension. Fig. 2 shows result of operation on right leg six weeks after operation.

The facts which I have above enumerated will, I trust, show that surgeons have at their disposal a certain means of rectifying the most serious and intractable forms of genu valgum, and that the operation is a legitimate one, inasmuch as it does not impose an unjustifiable risk on the patient. I have endeavoured to divest the surgical procedure of the epithet “heroic.”

ART. XVII.—*Enteric Fever; Remarks on its Diagnosis.*^a By WALTER BERNARD, F.K.Q.C.P., Londonderry; late Principal Medical Officer, 3rd Division Army Works Corps, Crimea.

Importance.—The solution of the problem of the diagnosis of enteric fever is so frequently forced upon us in practice that it demands our best and most careful consideration. Although much has been written on this subject, I hope that these few remarks will prove useful in eliciting some practical hints from those who are continually engaged in fighting at the bedside with this fatal malady. I have been induced to bring this paper before your notice not only from the importance of the subject, but also from the confusion which appears to exist in the diagnosis and nomenclature of acute febrile states. The importance of the subject cannot be over-estimated, and is well known to us all. I shall briefly show how important the subject is with regard to the prognosis and treatment. On many occasions the lives of our patients depend on our recognition of the mildest forms of the disease. When we are sure we have typhoid to deal with, we strictly enjoin rest, and put in force necessary prophylactic measures. If we fail to recognise the disease and allow our patient to go about, we may be undeceived by the occurrence of perforation or hæmorrhage, for it is a notorious fact that the severity of the general symptoms is by no means in proportion to the severity of the intestinal lesions. Almost every practical physician has met with cases of this kind.

Difficulty.—The difficulty of the subject is in proportion to its

^a Read before the Medical Society of the King and Queen's College of Physicians, Wednesday, November 3, 1880. [For the Discussion on this paper, see page 522.]

importance. We are all aware that under this head there are included some of the most difficult questions in the practice of medicine. Whether we look at the mild or at the severe forms of the disease we encounter difficulties, and in some cases we are reluctantly compelled to confess that it is impossible to be certain of the nature of the disease we are called upon to treat. With our present knowledge, however, we are able in the vast majority of cases to arrive at an accurate diagnosis. In some cases we can only interpret the phenomena before us after a considerable time has elapsed, and not till we have carefully reflected on what we have observed. The difficulties of diagnosis arise from the fact that typhoid exhibits many protean forms and closely resembles many other morbid states.

Former History.—A superficial glance at the progress of our knowledge will show that one error into which practitioners fell is now for the most part removed. The term “enteric fever” has been used in too limited a sense—in other words, enteric fever in some of its protean forms has not been recognised as such, and it has been classed under the head of some other disease. Many cases which some years ago would have been classed under the heads of “simple continued fever,” “low fever,” “worm fever,” “infantile remittent fever,” “gastric fever,” “bilious fever,” “brain fever,” and such like, would now be placed under the head of enteric fever.

Error of present time.—At the present day I think we err in using the term typhoid to include too many acute febrile states. It is in this direction that I look with confidence for improvement, and I have no doubt that accurate clinical observation, along with careful *post mortem* examinations, will at some future time add one or more names to our list of fevers. We have already some evidence of this change. Zenker, in the year 1860, proved by *post mortem* examination that a patient who was supposed to have died from typhoid really suffered from trichinosis. An attempt has been made by our Registrar-General (Dr. Grimshaw) to show that many cases of the so-called typhoid are really cases of acute gastro-enteric catarrh. Although I am not prepared to deny the existence of the “*febris gastrica*” as an independent disease, still I think it is impossible with our present knowledge to distinguish between this disease and mild cases of typhoid. Cases occur during epidemics of typhoid which exactly answer to Dr. Grimshaw’s description of acute febrile gastro-enteric catarrh. It is to be regretted that in those cases no notice has been taken of the size

of the spleen. Again, we know that many high authorities do not regard the well-known outbreak at the Clapham School as typhoid, but as some other disease—still unnamed—produced by sewage. Further evidence of this change can be obtained from cases of prolonged febrile states, which are sometimes met with in practice. These cases do not exhibit any of the marked symptoms of typhoid, but by the method of exclusion are put down as examples of the disease. It is not improbable that many of these cases arise from a cause quite different from the specific poison of typhoid.

Temperature.—The thermometer, one of the most useful of our instruments, is invaluable as an aid in diagnosis. Our study of the temperature chart will, in many cases, if no active antipyretic treatment has been adopted, suffice to show that the case is one of enteric fever. The presence of pyrexia will at once enable us to exclude from our diagnosis such affections as mania, or a bilious attack, which are occasionally confounded with typhoid. It has been proved beyond all doubt that a patient may pass through typhoid without his temperature rising above normal.^a This fact is sufficient to show that we must accept with reserve the statement that enteric fever should be excluded from the diagnosis by a temperature approaching to normal any evening during the first week. Wunderlich says that if the maximal evening temperature does not reach 103° we may exclude enteric. Jenner and Murchison have shown that this law is unreliable; and we have abundant evidence of this in the occurrence of cases of non-febrile typhoid. It has been laid down, and it is true in most, if not in all cases, that we may exclude any case in which a temperature of 104° is observed on the first day or second morning of the illness.

Mild Typhoid.—Mild cases of typhoid, typhus, simple continued fever, and febrile gastro-enteric catarrh, may present to us exactly the same clinical phenomena. Light will sometimes be thrown on these obscure cases by careful attention to the ætiology and history. It is well to remember that the poison of typhoid, even in its mild form, has a peculiar elective affinity for the spleen. Unfortunately many other diseases produce enlargement of the spleen, and it is not easy to satisfy ourselves in all cases that there exists slight enlargement. If, however, we can detect enlargement we have strong

^a Cayley says (Croonian Lectures, British Medical Journal, April 3, 1880, p. 505):—"Many cases, and even epidemics, of typhoid have been met with in which the temperature has been subnormal throughout the whole course of the disease. One such epidemic has been reported by Dr. Strube."

presumptive evidence that we have to do with typhoid. In many cases of typhoid there is a premonitory stage—a stage of gastrointestinal catarrh^a—before the invasion of the disease, which is known by the occurrence of rigor and rise of temperature.

Typhus.—The labours of Stewart, Jenner, and others, have been so fruitful in their results, that little difficulty is now experienced in distinguishing between enteric and typhus fever. The rash of typhus occasionally, when discrete and in its earlier stages, resembles an abundant typhoid eruption; but when we take into consideration all the other phenomena we seldom have any great difficulty in arriving at a precise diagnosis. It sometimes happens that cases of fever are not seen till what is called the typhoid state is present, and it may be most difficult to determine, in the absence of eruption, whether the cause of the condition is the presence of the typhus or typhoid poison. The previous history will, if it can be obtained, set the matter at rest. It is important to remember that the rash of typhus can sometimes be made visible by the use of the cupping glass. For this observation we are indebted to Dr. Hudson. Those cases in which the poisons coexist are very perplexing.

Septicæmia.—In many cases of typhoid fever septicæmia is superadded to the original fever. Hence there is often great difficulty in distinguishing between septicæmia due to other not easily recognised causes and that due to septic matter from typhoid ulcerations. Murchison says that many cases of septicæmia, due to caries of the temporal bone, resemble closely enteric fever. In cases of this kind, where we cannot find any cause to account for the symptoms, we are perhaps too ready in making typhoid a symptomatological scapegoat. The occurrence of septicæmia gives an explanation of those cases of typhoid of very prolonged duration, but will not, I think, altogether explain the fact that typhoid terminates by lysis. In cases of short duration, in which ulceration may be supposed not to have taken place, the fever as a rule terminates by lysis.

Tuberculosis.—Acute tuberculosis, whether pulmonary, meningeal, or abdominal, so closely resembles typhoid as often to tax the skill of the most accurate observers to the utmost. In cases of difficulty the family history and ætiology will often afford much help. Those who are familiar with the use of the ophthalmoscope have a great advantage in the investigation of these cases. Tubercles, as a rule, are developed in the chorioid coat in cases of acute

^aThe word catarrh is used by some writers to signify affections depending on exposure to cold, while other writers use it in a much wider signification.

miliary tuberculosis, in some cases of phthisis, and rarely in tubercular meningitis. In acute phthisis Wunderlich and others have shown that the pulse-temperature ratio is greatly disturbed, and in difficult cases the knowledge of this fact may occasionally enable us to arrive at a right diagnosis. I know of one instance where considerable doubt existed as to whether the case were one of acute phthisis or typhoid fever, in which the anxiety of the medical attendant was entirely removed by the occurrence of malaise and gastro-intestinal catarrh, without diarrhæa or any other distinctive marks, in a member of the same family. This occurrence turned the balance of the evidence in favour of typhoid, and the result fully justified the decision. In his "Clinical Notes" Dr. Wilks remarks that it is often rather from a contemplation of the case from its commencement to its termination, and the surrounding circumstances, that the conclusion is arrived at. Dr. Waters, of Liverpool, has shown that in cases of phthisis the temperature, as a rule, attains its maximum about 5 p.m., and that in enteric fever the temperature is higher at 9 p.m. than at 5 p.m.

It is well known that we may have all the symptoms of tubercular meningitis present in typhoid, even those which are held to be very characteristic of the former affection, as hydrocephalic screams, cerebral maculæ, and strabismus. In some of these cases of extreme difficulty we must content ourselves to remain in doubt until *post mortem* examination solves the problem. On this subject Dr. Hudson says:—"One sign, I think, you will find all but unerring when present, as it is peculiarly characteristic of cerebral mischief—I refer to that deranged condition of the circulation, in which we meet with a jerking impulse of the heart, with irregular intermittent pulse, of unequal volume, and uncertain rhythm."

Local Diseases.—Sometimes, especially in children, it is difficult to come to a conclusion whether the pyrexia is due to some local affection (*e.g.*, intestinal irritation, enteritis, pneumonia), or whether it is primary. The greater prostration, the presence of spots, the peculiar range of temperature, the enlargement of the spleen, the occurrence of headache and epistaxis, the pea-soup alkaline stools, the gurgling in the right iliac fossa, will show that we have typhoid to deal with.

Treatment is sometimes of value in forming a diagnosis:—(1.) A small dose of castor-oil will often, in a doubtful case, produce a characteristic motion. (2.) Quinine, as an antipyretic agent, has much influence in typhoid, whereas in tuberculous affections it has

little or no effect. (3.) Sometimes in children we observe pyrexia with gastro-intestinal disturbance, which, although closely resembling typhoid in many of its symptoms, is very amenable to treatment. A powder of rhubarb and sulphate of potash, given once or twice daily, has a wonderful influence over this affection, and by this means we are able to distinguish it from typhoid.

The knowledge of the laws of diagnosis, and the errors likely to be made, may be called the mechanical part of diagnosis; but over and above this there is a knowledge which cannot be communicated from one individual to another, and which is possessed in varying degrees by different observers. We often reason from particulars to particulars without being able to express in general terms our experience. There is much wisdom in the lines—

“Whose old experience doth attain
To something of prophetic strain.”

ART. XVIII.—*Anomalous Fever Cases.* By THOMAS DRAPES, M.B., Enniscorthy.

IN the practice of every physician anomalous cases of fever from time to time occur in which diagnosis finds itself sadly at fault—cases in which it is difficult, perhaps impossible, to carry out the injunction of a sometime famous nurse, “Give it a name, I beg.” A sharp contention has been for some time waged, and even still the flame of controversy flickers, around what appears to be a new importation into these islands within the last few years, the disease called “rötheln”—some practitioners (I believe I am right in saying the great majority) regarding it as a distinct and specific exanthem, while others still prefer to consider it a hybrid, or some modification of either measles or scarlatina. Many of us, no doubt, can recal the uncomfortable state of uncertainty in which we found ourselves over our first case or cases of “rötheln,” and how, on being questioned, our ingenuity was taxed to give a properly ambiguous reply. Happily in this instance, under the “fierce light” of multi-form opinion, and chiefly by the aid of our Continental and American brethren, a problem, dubious at first, appears to be approaching a tolerably satisfactory state of lucidity. In other instances, however, such a result not unfrequently is sought for in vain. This, of course, more often occurs in isolated cases of disease of which only one specimen presents itself, than in the case of a disease like rötheln which affects numbers of individuals. By way of example, I may