

portion of intestine united. There is a danger in the weight of the button which may act as an anchor to hold the bowel in a flexed position, and so cause obstruction. There is also a danger of the lumen of the button becoming plugged with hard faecal matter, thereby causing fatal obstruction. The holes placed at the ends of the buttons for the purpose of drainage may cause perforation, if care be not taken in pressing the segments together. On the other hand, the statistics collected by Wiggin are much in favor of Murphy's method. In 84 cases of intestinal anastomoses of gastro-enterostomy and of operations on the gall bladder, the mortality was 14%, which compares favorably with that of intestinal anastomoses by other methods, which, according to von Baerez, is 24.5 per cent.—In a consideration of Wiggin's objections which is published in this reprint, Murphy states that of the numerous cases in which his method has been practiced, not a single instance has been reported to him of obstruction due to retention of the button, and he has heard of only two in which the button had been retained. In this case on which Wiggin bases this special objection, the button, it is held, might have been removed by an operation which no surgeon would consider of grave importance. In answer to the objection that in practising Murphy's method the surgeon depends mainly on the craft of the cutter, it is pointed out that he depends also on the silk manufacturer for the silk he uses, and as he tests his silk, he should test also his button. Murphy has sent models to all manufacturers who have requested them, and asserts that he would gladly inspect, and does inspect, all buttons sent to him. The fact that defective buttons have been manufactured cannot, he believes, be brought forward as a valid argument against the utility of his method.—*Brit. Med. Jour.*

THE STUDY OF HEREDITY.—In his address before the Abernethian Society, Sir James Paget drew attention to the great gaps which exist in our knowledge of the laws of heredity. Some of the broad facts of heredity are familiar enough, and are indeed too palpable to be overlooked, even by careless observers. That gout, cancer, rheumatism, tuberculosis, and insanity, to take a few examples out of many, are often inherited is a well recognized and certain fact, but, says Sir Jas. Paget, "it has never been studied carefully what may be the result when one parent has one transmissible disease and another has another; what comes if one parent is a member of a cancerous family and another a member of a tuberculous family. Do these two diseases in any respect disturb one another? Are they mutually exclusive, or do they mingle together? We know that acute tuberculosis and acute cancer never make rapid progress together; they seem in so far as that to

be antagonistic. But what comes of it when they are mingled together by inheritance? Of that I think we certainly know nothing." This is only a specimen of numerous questions which might be put in connection with the subject of heredity, but are for the present without any certain answer. Is heredity more usually through the male or the female? If a son or daughter strongly resembles the male or female parent, will he or she be likely to develop the diseases occurring in the corresponding stock? Why does disease sometimes "skip a generation" only to re-appear with increased virulence? Why does the epilepsy of the parent become insanity in the child, or *vice versa*? How comes it that the female transmits the tendency to hæmophilia, but is herself exempt, while the male who suffers does not usually propagate the disease? We might multiply these queries a hundredfold, but they are sufficient to show how much darkness still envelops so patent and all-important a fact as the inheritance of disease.

Some of the laws of heredity are approximately known, although often their *raison d'être* is inexplicable—as, for example, the law that disease often skips a whole generation and re-appears in the generation that follows. This fact has long been observed, and is known as "the law of atavism." It seems to involve the assumption that an individual apparently quite healthy may contain in his organism the seeds of disease, for example, tuberculosis or cancer, and transmit the tendency to such diseases to his offspring although he has never presented any symptom of them himself. This may be so, but if such a theory be correct it intensifies our conception of the mystery of pathological processes. If it could be shown in such cases that the "latent" seeds of disease (we are compelled to use figurative language in this connection for want of better) remain latent until certain favoring conditions combine to bring them to maturity, the mystery would be materially lessened, but in many cases we have no evidence that such is really the true explanation. It may, however, be regarded as often a probable hypothesis.

A great deal of work still remains to be done in connection with the heredity of phthisis. It is generally asserted that from thirty to forty per cent. of the cases arising in practice occur in infected families, but it is striking how various are the figures given by different observers. Owing to the great frequency of the disease and the probability of infection, it is evident that many cases of apparent inheritance might be otherwise explained. It would be a great gain to practical medicine if we had decisive evidence as to the influence of heredity upon phthisis on the one hand and the frequency of infection on the other. We are still without any quite satisfactory theory to harmonize the apparently certain facts that