from secondary hæmorrhage owing to the carelessness of those in charge, who failed to detect and report the accident until too late.

A young female, almost moribund from chronic diarrhoea, and much emaciated, was admitted with an elephantoid tumour of the clitoris, about the size of a child's head, and hanging by a small narrow pedicle. I yielded to the temptation of snipping it off with a pair of scissors, but she sank exhausted from her diarrhoea a few days afterwards.

Herniotomy.—Two radical operations were performed for strangulated inguinal hernia in old men, one by Banks' and the other by Macewen's method. Four radical operations

for ventral hernia were performed on women. In one there was strangulation, and the sac had to be opened. They all healed by first intention, and the results were quite successful.

Amputations.—There is nothing requiring special notice with regard to amputations, except to explain that the two fatal cases were compound fracture of the arm and thigh, respectively brought to hospital several days after the receipt of the injury, and after septicæmia had set in. The wounds were quite putrid, and in the case of the arm the parts were gangrenous, and the limbs had to be taken off at the shoulder-joint.

I cannot bring this account to a close without acknow-

ledging my obligations to Miss Perry, the Lady Dufferin doctor, for her valuable assistance and unremitting care of the cases committed to her charge, and also to the various assistant surgeons who worked under me, but especially to Baber Benode Krishna Bose.

Howrah, Calcutta.

ON THE INFECTIOUSNESS OF INFLUENZA.

By H. POOLE BERRY, M.B.,

MEDICAL OFFICER OF HEALTH TO THE BOROUGH OF GRANTHAM.

IN various articles and reports which have recently appeared in the medical journals with reference to the spread of epidemic influenza, the writers seem to be quite satisfied that this takes place by infection or contagion from person to person. In deference to the numerous high authorities who hold this opinion, I feel bound to admit it as substantially true; but I think there are very many who have had a large experience of the recent epidemics in the less densely populated parts of the country who will agree with me in thinking that, if it be true that the disease does spread from person to person, nevertheless it certainly does not spread by *direct* infection like scarlet fever, measles, small-pox, whooping-cough, &c., but that the infection must take place by some *indirect* means, just as typhoid fever and cholera are known to spread by infection indirectly. In no other way can I possibly reconcile the facts that I have observed, the manner in which the disease has first attacked certain localities, and the way in which it has subsequently spread. I am forced to such a conclusion by the following reasons.

1. Granting that the disease spreads by infection and infection only, then it must be admitted by all, I think, that it is the most virulently infective disease which we know. By this I mean that either a vastly larger number of people are liable to be attacked by this infection, or that the infection itself is much more readily communicable, than is the case with any of the other infectious diseases which occur amongst us. Numerous instances, however, must, I think, be present in the minds of most of us in which isolated cases have occurred unaccompanied by the development of the disease in those who were in immediate contact with patients suffering from the malady. I need, I think, only allude to one or two such instances in my own practice, feeling confident that these will readily recall in the minds of others a similar experience: (a) In the epidemic of 1890 a young man came from London to his home here, developed typical symptoms of influenza the next day, which ran the usual course, and none of the others in the house were attacked. (b) Last autumn, when the disease was not epidemic, isolated cases occurred here, irregularly scattered, cropping up from time to time, and an epidemic did not result till the spring of this year. We had this disease, then, present amongst us last autumn, this disease which is capable of spreading like wildfire through a community, and yet no widespread epidemic occurred. (c) In my own house, my groom had a typical attack in the beginning of February, 1891, and, with no attempt at isolation, none of the rest of my household suffered at that time, though in the middle of April I had it myself, followed a fortnight later by my cook (though the incubation period is stated to be two or three days). This showed that two of my household, at any rate, were liable to be attacked, though we escaped when the infection was in the house in February. (d) In another house this year, one case commenced on Jan. 7th, another member of the family was attacked on May 5th, three servants were struck down almost simultaneously on May 26th, and on July 6th another member of the family had the disease. When the disease was present in the house, and all these six people were liable to be affected, and no isolation was attempted, if the disease be so very readily communicable, why did they not all have it about the same time?

2. During the last epidemic, I especially noticed that in the villages around here some few cases of influenza were present for from seven to ten days before the great bulk of the cases occurred; that is to say, the disease was present in a particular village for a few days, when suddenly a little later a large percentage of the villagers were almost simultaneously attacked. Why should the infection smoulder for a few days amongst a few people and then suddenly

flare up, and the whole village, as it were, be then *almost suddenly* struck down?

If those who maintain that the disease spreads by infection will admit at the outset that it does not spread directly from person to person like scarlet fever, measles, &c., but by some indirect means which exist outside the human body, then I think we may admit their theory, the ground for discussion and discovery will become clearer, and all must set to work to find out what is the manner of the indirect means by which the infection spreads. This is of the utmost importance from a preventive point of view, for it has always struck me as savouring of the ludicrous to endeavour to prevent an infection—which is known to rush across a continent in a fortnight or so, numbering its victims by thousands—from spreading, by attempts at isolation, from the garret to the ground floor. Whereas, if we can discover the manner in which the infection spreads, or the conditions under which it multiplies, then there is a possible chance, at any rate, of finding out some means of holding it in control.

Grantham.

SPEAR WOUND IN THE ABDOMEN, AND SUBSEQUENT RECOVERY OF PATIENT.

By ANDREW ROSS, M.D.

THE following remarkable case occurred in my practice some few years back, and may possess some interest.

On Dec. 25th a messenger arrived requesting my attendance on one "Harry," an aboriginal, who had, in an encounter with another of the race, arising through some quarrel over a "gin," received a most dangerous spear wound in the abdomen or epigastric region, and leaving the spear, which was eight feet in length, embedded in the body to the depth of about seven inches. I at once proceeded to the spot, which was about three miles from Molong, but on my arrival found the patient had in the meantime been removed to the adjoining hotel. His mate was attending to him, and was patiently engaged in holding the projecting handle of the spear in a line as near as possible corresponding with the original blow, in order, I presume, to prevent any further mischief arising until my arrival. I was subsequently informed, however, that several rude and ineffectual attempts had been made to withdraw the spear, but their efforts were foiled owing to the barbs—two in number and three-quarters of an inch in depth, the third just projecting at the mouth of the wound—being entangled in some portion of the internal viscera. The wound entered to the left of the mesial line, a little below the ensiform cartilage or near the pyloric orifice of the stomach, about an inch and a half in length, inclining downwards and backwards, and bleeding freely, owing probably to the rough, ineffectual attempts made to extract the weapon. He was a young man of about twenty-six, with a good constitution. At first I was a little puzzled to decide on the best course of procedure to adopt in such a case; for on slightly moving the handle I could evidently discover that two at least of the barbs, as they were very sharp and pointed, had fairly become fouled on some portion of the internal viscera, and therefore to attempt to extract it as it had entered was not only to increase the danger by involving and lacerating other parts, but to render a chance (though at best a poor one) of recovery perfectly hopeless. In regard to wounds, however, I must admit that blacks are more tenacious of life than European or white subjects, as the history of the case will, I think, fully demonstrate. As the instrument, as I stated, had penetrated to some considerable depth, I resolved at last to extract it, if possible, from behind, low down in the lumbar region, so as to readily admit of the flow of any discharge which might subsequently ensue. To this end I lost no time in providing myself with a small tenon saw and a pair of forceps, which I borrowed from a neighbour. After fixing the spear in the direction I wanted to extract it, and giving it to one of the attendants to hold, I commenced to saw it through close to the neck of the third barb (as seen in the accompanying engraving) and the mouth of the wound, and then steadily but firmly pressing my finger against the cut end. I then made a sufficient incision at the point behind, and by the aid of the forceps succeeded in

extracting the spear, with but very slight hæmorrhage. I next sponged, adjusted, and stitched the edges of the wound together, and applied a broad bandage. The landlord of the hotel was kind enough to accommodate the man with a comfortable room; but I may remark that the weather at this time (it being midsummer) was exceedingly sultry, the thermometer ranging from 100° to 111°. After prescribing some sedative medicine, I left the patient for the night. At my next visit, the following day, I found the patient was not used to such comfortable quarters, and had during the night managed to make his escape from the room unobserved, and had joined his mates, who were camping in a bush paddock a short distance from the hotel. On learning this I repaired to the camp and found the deserter, *minus* the bandage, better than I expected to find him, the wound free from discharge, and little or no pain or swelling. He refused to take any food, and occasionally moistened his mouth with weak tea or thin arrowroot. I continued the sedative medicine and left him. During the evening he remained in much the same state, and only complained of pain when moved. On the 27th he began to complain of acute radiating pains and slight abdominal swelling. Owing to his present weak state through previous loss of blood, I substituted fomentations in place of bleeding, and now added a little calomel to the opium. During the evening he remained much the same. On the 28th I found the plaster and the whole of the stitches had been removed, and the original or anterior wound wide open and gaping, accompanied by a quantity of ichorous serum oozing from the orifice. He had taken no medicine since my last visit. The posterior wound to all appearance had healed. His "gin" was sitting by his side in a bough gunyah, attentively bathing the wound and swollen abdomen with a few of the most tender under-shoots and leaves of the red gum tree (*Eucalyptus nostrata*, so common in the bush of Australia), wrapped together in the form of a wreath, and every now and again dipped into a "billy" (a tin vessel capable of holding from half a gallon to a gallon) of hot water containing the infusion of the gum leaves,

Spear used by the aboriginal natives in Australia. Each barb is $2\frac{1}{2}$ in. apart, and its length, including the three barbs, measures about 7 in. The length of the entire spear measures $7\frac{1}{2}$ ft. to 8 ft. The barbs, or prongs, are particularly short and much pointed, and the depth of each is about $\frac{3}{4}$ in.

which was constantly kept warm by the fire. In consequence of this unexpected interference, and the untoward appearance of the wound (now greatly enlarged owing to the swelling), the slight chance of his recovery seemed now to be completely taken out of my hands; for to attempt to again close the wound under the circumstances would not only have been futile, but adding to the danger, as the swelling had so rapidly increased that the man now seemed quite helpless, and the pulse sinking. I was somewhat, then, reluctantly forced to abide the issue of what seemed not only a clumsy, but an unnatural and cruel sort of application. I was determined, however, to watch the case to the end. I continued the sedative medicine and left. On returning on the following morning, to my surprise I found what I had previously regarded as a useless application had not only lessened the size of the wound, but had had the effect of also considerably reducing the swelling in the abdomen. Seeing such promising results, I of course offered no further objection to the use of this evidently strange application to the wound, and simply continued the opium. On the 29th I was still further pleased to find that the patient had rallied and was in good spirits, the wound gradually closing up, and very little discharge. On the sixth day (the 30th) I found the abdominal wound closed; and with the exception of the swelling, surprising to say, it looked almost as well as it did when first dressed, and so far everything was progressing favourably. On the 31st he was able to sit up a little, and partook more freely of arrowroot, but only in small quantities at short intervals, as otherwise it increased the swelling and distressed his breathing. The bowels not having operated, castor oil was prescribed with good result. Through some oversight I was debarred from examining the nature