When I visited the patient on the fourth day, I found the catheter had again escaped from the urethra, and had not been replaced during the last two nights. Having laid her on the table in the same position as before, and having expanded the vagina, and introduced the female catheter into the urethra, I depressed the bladder, and divided the ligatures with a probe-pointed bistoury, and a director bent towards the point. The threads were then removed with a pair of common forceps; and, from the view we could obtain, the union appeared to be complete. In order, however, to be satisfied respecting the cure, I left the catheter in the bladder during a quarter of an hour, having previously secured the lower opening with a plug. At the end of this time the plug was removed, and I had the pleasure of seeing the urine flow in a stream, while the vagina remained quite free from that fluid. In order to promote the retentive power of the bladder, I desired that the catheter might remain in the passage, and that the plug may be removed at stated intervals. The woman was also allowed to sit up, walk, or lie down, as she might feel disposed.

On the eighth day I examined the cicatrix again, and found by passing the catheter in the urethra and the finger in the vagina, that no vestige of the fistula remained. As the woman had been very impatient, and had retained the instrument only occasionally in the passage, I desired that it might be discontinued.

On the sixteenth day she rode to Bridg-north, a distance of seven miles from her residence. At that period she had so far regained the power of retaining the urine, that she could pass three ounces at a time. It now and then escaped involuntarily, particularly during the night; and she did not recover the retentive faculty of the bladder until the end of five months after the operation.

I was assisted in the operation by the late Mr. W. Proud, surgeon in this town, who kindly interested himself afterwards in watching the progress of the cure.

Two important facts were observed during the recovery of this patient; one, that it was unnecessary to confine her to bed with the face downwards; and the other, that the uninterrupted retention of the catheter during the union of the incisions was also not essential to the cure, after the first twelve hours.

The subjoined plate represents the forceps with the moveable ring, by means of which the needle may be retained at any angle with the greatest firmness, until the surgeon wishes to liberate it, which he can do by moving the ring towards the joint. The length of the instrument is eight inches and a half.

Fig. 1. The moveable ring.

Fig. 2. A spring to keep the blades open.

EPIDEMIC TYPHUS FEVER, COMPLICATED WITH ERYSIPELAS, IN THE COUNTY OF ANTRIM.

By J. JOHNSTON KELSO, M.D., Lisburn.

"IRELAND," as is justly observed by a well-informed recent writer (Dr. McCormac) "is the grand mart of fever;" and, from the operation of a concurrence of local and temporary causes, whether terrestrial or atmospheric, it not unfrequently assumes an epidemic character in that country; but as almost each epidemic presents some peculiar features, either in its phenomena, causation, or the laws by which it is characterised, perhaps a brief account of the leading characters of the present one may not appear as a work of supererogation, or wholly uninteresting to the numerous medical readers of THE LANCET.

It was early in the autumn of last year (1837) that epidemic fever may be correctly said to have first appeared in Lisburn and the adjoining country, to several miles around. The walls of our rather spacious Fever Hospital, so far as accommodation in the shape of bedsteads, bedding, &c., could be afforded, were soon comparatively crowded with the then augmenting number of cases of the disease; and as well on account of limiting its extension, as to meet contingent emergencies, a Board of Health was at this time, *pro forma*, established. And here, parenthetically, I may be permitted to remark, that fever prevailed also, at the same time,

to an unusual extent, throughout a considerable portion of this part of the province of Ulster, numbering among its numerous victims several medical men of my acquaintance, whose loss I, with an extended circle of their respective friends, cannot but deeply lament.

It was, however, towards the end of the autumnal, or beginning of the winter season, that the epidemic, which had previously generally presented the simple continued character, without evincing any evident local complication, or unusual fatality, assumed all at once the typhoid type, with marked affection, in almost every case, of the gastro-enteric mucous membrane, and an increased amount of comparative mortality. The disease, on being ushered in with the usual pyrexial phenomena, was, for the most part, characterised by the following condition and *complication* of those phenomena :—

The pulse, which from the first was generally expanded and soft, soon became accelerated and easily compressible under the finger. In number it commonly varied from about 90 to 120 in the minute. The respiration, which usually counted from about thirty to thirty-five, was generally imperfect and laborious. The respired air was frequently charged, sometimes to an unusually great extent, with aqueous vapour, and felt oftentimes cold to the sensation of the hand. Cough, of a more or less teasing character, accompanied generally with some degree of pain of chest in the effort, was now by no means uncommon. The cheeks were either pallid, or slightly flushed, the flushings occasionally alternating with pallor, either in one cheek only, or in both at the same time; and the eyes were either suffused, or morbidly brilliant, preternaturally prominent, or sunk back in their sockets. The skin, which not unfrequently appeared contracted, and bound down to the subcutaneous tissues, was always hot, or burning, although, perhaps, the patient felt chilled, or was shivering, at the same time. Occasionally the trunk of the body and superior extremities were bedewed over with a rather copious, cold, clammy moisture, while the rest of the integuments felt warm, or burning, and dry. The tongue, whose edges and tip presented generally a dirty red aspect, not unlike that of half decomposed flesh, was invariably coated over either with a brownish-dark, or a black fur; the mouth and lips being parched and dry. The thirst was variable, being sometimes but slight, but more generally excessive; and there occasionally existed, even from the first, a distressing irritability of stomach, which it was sometimes found impossible, by any means, entirely to allay. The bowels were sometimes constipated, but more generally relaxed, while the motions, which were sometimes bilious, were of va-

rious degrees of consistence, and frequently emitted a mawkish, disagreeable odour. Pain, of a more or less acute character, was very generally found to exist in some part of the abdominal region, but more especially about the epigastrium and umbilicus. Some degree of meteorism, too, not unfrequently announced itself during this stage. The urine, in addition to those appearances which it usually presents in cases of fever, was found to be occasionally albuminous. Headach, of greater or less intensity; some, though rarely excessive, confusion of the ideas, with generally restless, unrefreshing nights, constituted the remainder of the more prominent phenomena of this stage, to which I need here advert. Perhaps it should have been previously mentioned, that in those cases where blood was abstracted from the general system, it always presented a dark, molasses-like appearance and consistence, coagulated slowly and but imperfectly, and in one or two instances which fell under my observation, it evolved a disagreeable, sickening odour.

As the disease progressed, the muscular debility and general prostration of the vital powers became more manifest. The pulse became quicker, weaker, and tremulous; and in those cases which were to terminate fatally, it was frequently intermittent and irregular. Free perspirations, either general or local, and of a more or less disagreeable odour, now very generally set in. Indeed, in some cases, the extreme and abominable factor of these perspired fluids was found, on raising the bedclothes, to be absolutely insupportable. The bronchitis of the earlier stages now not unfrequently lapsed into pneumonia, thus constituting but too often a fatal complication of the disease. Diarrhoea, to a greater or less extent, accompanied generally with extreme tympanitic distention, and, in almost every instance, with acute pain of the entire abdomen on pressure, were the common and certainly very formidable phenomena of this, its more advanced stage. Generally speaking, sudamina, or typhus spots, were rarely developed; but sloughs, occasionally of frightful dimensions and depth, frequently formed in the more dependent and compressed parts of the body. The countenance, at this period, appeared generally languid and anxious, and the patient usually succumbed to the disease in a period of time varying from about ten to twenty days; and, what is rather remarkable, generally in the full possession of his intellects.

But it was in March that *erysipelas* announced itself as an important, though rarely, if ever, a fatal *complication* of the epidemic. The erysipelatous inflammation was almost invariably confined to the head and face, occasioning generally an enormous distention of, and a sense of constriction in, the impli-

cated parts. Ushered in, as this affection always was, by a considerable augmentation of the febrile phenomena, it usually ran its course in a period of from five to seven days; occasionally, however, persisting till the termination of the fever, either in recovery or death. Headach and delirium, both of which were occasionally intense and violent, constituted, for the most part, the more prominent of the phenomena which accompanied the appearance and progress of this super-added affection. It certainly appeared to be in some degree contagious, from the circumstance of its rapidly spreading among the patients in the Fever Hospital, on its first outbreak in that institution. Evidences, however, of its contagious character were, in private practice, rather more ambiguous. I need hardly add that no satisfactory causes can be here assigned to account for the development of an affection which proves so rare a complication of fever. The treatment consisted, for the most part, in the local application of the nitrate of silver to the inflamed parts.

Favourable changes, I may here mention, were not observed to have occurred on any particular day of the disease, more than another; nor could evacuations of any sort be ever correctly traced, except in a very limited number of instances, either as cause or effect of such changes.

With respect to the causes of the epidemic, I believe I only speak the sentiment of my professional friends here, when I say that we are almost entirely in the dark regarding them. Variations of weather, and of temperature, was remarked, exercised no influence whatever on the *progress* of the epidemic; and I am satisfied that its *origin* is referrible to something beyond the mere physical conditions attendant on the cycle of the seasons. True it is, that from causes to which I need not here refer, there resulted for some time previously to its outbreak, a great and rather sudden distress and destitution among a large section of the industrious working classes. But, as the disease was not limited to that portion of the community unfortunately involved in this distress, but extended to the more comfortable and even respectable classes, the existence of some other agency, or combination of agencies, must, I think, be necessarily assumed. Contagious it certainly was, to a certain extent, and in peculiar conditions of system, but its origin and pertinacious persistence up nearly to the present time, must evidently be referred to some other source than that of mere contagion,—and most probably to that unascertained *something* known to us since the days of the immortal Sydenham, by the name of "*epidemic constitution*."

As to the treatment, the simple method proved to be decidedly the most successful. Phenomena were never treated by *anticipation*, but as soon as they became developed,

were combatted by the simplest means consistent with their nature and intensity. General bloodletting, always a potent remedy, formed, with experienced practitioners, the exception, not the rule of practice. And in those cases where, all things being considered, the institution of this measure appeared advisable, the favourable expectations which may have been entertained of it were but rarely, if ever, realised; faintness, and subsequently prostration of the powers of life, generally supervening on the loss of some five or six ounces of blood. If, then, under the most favourable circumstances of age, constitution, &c., such, at least in my hands, were the usual effects of the *prudent* administration of bloodletting, what faithful results must have followed its indiscriminate and intemperate adoption by those low, illiterate, self-interested quacks, who, as is well known, unfortunately infest almost every locality in both town and country in Ireland? In fact, suffering humanity can never be considered as altogether safe from such officious and highly dangerous interference which has, in the present epidemic, consigned so many to the tomb, until the commonest practice of these despicable wretches shall have been interdicted by an Act of the Legislature. On the contrary, in those cases where the phenomena appeared to indicate its adoption, the topical abstraction of blood, by leeches, seemed to answer every good purpose. Of the utility of the milder mercurial preparations, given in such doses as to correct the vitiated secretions, there can, I think, be but one opinion: but when these were pushed to such an extent as to influence the system, the same decided advantages as are reported to have occurred in the practice of some of the leading London practitioners, its warm advocates, were never obtained by me in the present epidemic. But this discrepancy of result, as was justly observed to me by my excellent friend, Dr. William Thompson, is attributable to the fact that the fevers of Ireland are essentially different in their leading characters from those of the same class in England, but more especially in London. On the whole, after a fair trial of different systems of treatment, I am fully convinced that, the contents of the stomach having been previously evacuated by an emetic, salines, conjoined with regulated doses of some mild mercurial, in the earlier stages, and, in the later, superadded to these means, the most approved of the diffusible stimuli, as wine, camphor, &c., together with starch enemata, with or without laudanum, as the circumstances of the case demanded, proved, as general means, by far the most decidedly beneficial. The local or topical means adopted were various, but differed in nothing from those in general use in cases of fever.

Lisburn, Sept. 22, 1838.