From January 17th to March 18th, 1853, the galvanism was applied to the platinum wire, which was allowed to remain, about twice a week. Then ligatures and pressure were adopted for four months, with some improvement. In consequence, however, of the discontent manifested by the girl and her friends at the duration of the treatment, I was induced to change my plan; and consequently, on September 1st, I passed a very narrow double-edged knife under the skin, near to the external canthus, and cut up the whole of the blood-vessels; the haemorrhage being in a great measure arrested by the immediate injection of a filtered saturated solution of the lactate of iron. The eyelid was a little swollen for a day or two.

On September 10th and 30th, I performed the same operation, but with so little benefit that I determined on varying my proceeding by using an unfiltered solution of the lactate of iron, which, I felt persuaded, would succeed, by its irritant as well as by its coagulating power, in stopping the circulation of the part. On November 13th, after having cut up the tumour as on each former occasion, I injected a drop of as thick a solution as would pass through the small canula attached to the syringe. Though but little pain was experienced in former operations, after the anaesthesia had passed off, much was complained of this time; and consequently I was not surprised to find, on the following day, that considerable inflammatory action had been set up. The eye was much chemosed; the lids were swollen and very tense; and I feared that the sight would be lost. The chemosis gradually diminished; but the vividness of a portion of the lid ceased; and, on November 16th, five days after the injection, nearly the whole of the aneurism sloughed, leaving a large gap in the lid, which slowly granulated up, a few small blue vessels only remaining to be obliterated.

At the expiration of four months, I again injected the lactate of iron a few times, but without success, the remnant of the tumour being evidently too small to be affected by the fluid. Pressure and ligature seemed quite useless; and the only means left was the potassa fusa or hot needles. The latter I applied, and cured the case.

Chloroform was inhaled from twenty-five to thirty times, anæsthesia at first being induced in six minutes, at last in ninety. The dose on this occasion was seven draughts; and so great was the coma, which suddenly supervened to a state of exatious talkativeness, that I feared a fatal result, and did not think it prudent to accede to the wish of my patient to administer it again.

It will be observed in figure 2 that there is a little deficiency of the lower lid, which gives a start, and allows the tears to trickle over in moments of excitement. This defect has improved since the drawing was taken.

Although this case was under observation and treatment about two years, its result (which placed the poor girl in a position to obtain her own livelihood) amply repays the time and labour devoted to it. I have to thank my friends, Mr. John Lowe and Mr. Jacobson, for their able assistance.

OBSERVATIONS ON ELIMINATION IN FEVER.

By C. Handsfield Jones, M.B., F.R.S., Physician to St. Mary's Hospital.

The mode of determining the amount of urea in the following cases is a modification of that proposed by Dr. Davy (Dublin Hospital Gazette, June 1st, 1851, p. 134). One draught of urine is poured into a tube graduated into cubic inches, tenths, and hundredths; and the tube is then filled with liquid ammonia diluted with an equal volume of water, and immediately inverted in a solution of common salt. The urine, as it gradually mixes with the liquid, becomes decomposed, and nitrogen is set free, which collects in the top of the tube. Much of the liquid so deposited is expelled by the ammonia as it collects. Some losses of urea, no doubt, takes place; but not much, I think, as scarce any gas is evolved in the lower third of the tube. After standing some hours, the tube should be shaken, as Dr. Davy recommends, after which some further amount of nitrogen is extricated. In about six hours, the volume of gas can be easily calculated from it; 1,540 cubic inches of nitrogen = 1 grain of urea. I do not suppose this method is so accurate as that of Lévi; but it may be very easily and readily performed, and afford, at any rate, results capable of being compared with each other. The main cause of error is the circumstance that so small a quantity of urine only can be operated on.

Case I. R. R., aged 24, was admitted September 30th, 1856. He had been ill seven days. He had severe fever, from which he was convalescent on November 11th. There was diarrhoea, and a time high delireum. He was treated by a little wine till October 9th, when he got two grains of quinine every three hours. The wine was increased to six ounces on October 10th. Improvement had begun by October 13th.

Urine. October 7th. The urine was of yellowish colour, clear; specific gravity 1014; slightly albuminous, deposits; there were a trace of oxalate of lime, and a few casts with filamentary fibres.

November 14th. He was quite well. He had had ordinary diet and porter since October 27th. The quantity of urine in twenty-four hours was 60 oz., of nearly normal colour, of specific gravity 1017. The total amount of urea was 534:644 grains; the total amount of uric acid, 297:648 grains. There were many casts deposited; there were a trace of oxalate of lime, and a few casts with filamentary fibres.

Case II. J. H., aged 49, a woodman in Hyde Park, was admitted October 16th. He had been ill one week with typhoid fever, accompanied by some delirium and diarrhoea. He be-
came very low, and died October 25th. He was treated by beef-tea and six ounces of wine. On October 19th, he had half an ounce of spt. guaee every four hours.

Urine. October 20th. The quantity in twenty-four hours was 92 oz.; specific gravity 1005; colour bright. The acidity was below the normal mark. The total amount of uraee was 526-296 grains; of urie acid, 10-2 grains. The urine deposited casts, mostly homogenous.

Case VII. S. B., aged 39, a nurse in St. Mary's Hospital, was admitted December 2nd, 1856. She had been ill some days before admission. She was attacked at first with diarrhoea and vomiting. She lapsed into a state of extreme depression, and died February 19th. Her urine was thin, and milky, and compound chalk powder with opium for diarrhoea. She had half a bottle of stout on December 6th, and, on December 9th, was ordered to have an ounce of mistura spiritus vini gallici three times a day.

TABLE V.
The quantity of the last twenty-four hours was 42 oz.; it was high coloured, turbid, but clear after depositing a white sediment; specific gravity 1020. The acidity per ounce was equal to thirty drops of saturated soda solution. The total amount of uraee was 431-434 grains; of uric acid, 0-88 grains. The urine was doubly albuminous. In the deposit were masses of uric acid, granular and homogenous casts, a good deal of round epitheliaum, and some blood-corpuscles.

In both the preceding cases, the fatal event precluded a comparative analysis. It is apparent, however, that, in the last case, the quantity of urine excreted was quite equal to that produced by a healthy man in health (330 to 401 grains, according to other observations with this method). In Case 11, the amount of uraee was below the healthy mean; but the number of ounces passed, and the specific gravity, do not support the view that elimination was not going on freely. Moreover, the quantity of uraee added to urine was above the mean.

Case VIII. G. B., aged 20, male, was admitted November 19th, 1856. He had been ill five days before admission. He had typhoid fever, from which he was convalescent December 4th. November 6th. He had six ounces of port wine daily.

November 12th. He was ordered a draught of decoction of cinchona, with a dram of tincture of cinchona, and three hours. November 19th. Broth diet and milk were ordered: the medicine and wine were omitted.

Urine. About November 5th. The quantity in twenty-four hours was 12 oz.; it was nearly clear, not high coloured; specific gravity 1016. The acidity per ounce was equal to sixty drops of saturated solution of birecarbonate of soda. The total amount of uraee was 112-418 grains; of uric acid, 13-59 grains. The urine was slightly albuminous; it deposited a very few granulo-homogenous casts.

November 27th. The quantity in twenty-four hours was 74 oz.; it was clear; specific gravity 1014. The acidity was represented by thirty drops of the soda solution. The total amount of uraee was 374-144 grains; of uric acid, 11-11 grains.

December 10th. The quantity in twenty-four hours was 60 oz.; specific gravity 1014-5; quite clear. The acidity per ounce was equal to 63 drops of saturated soda solution. The total amount of uraee was 301-134 grains; of uric acid, 9-90 grains. The urine deposited a good deal of uric acid spontaneously, and a little oxalate on standing two or three days.

The first analysis in this case does not refer to the depth of the fever, but to an earlier period. The amount of excreta was very greatly increased during the time when convalescence was taking place. This is corroborated by the two last analyses show the result, on comparison, is not at all different from that of Case 11; but the date of the first analysis in Case IV has to be regarded. The two experiments are not quite parallel.

Case IX. G. F. H., aged 14, male, was admitted November 21st, having been ill one week. He had diarrhoea and low fever, began to convalesce about December 5th, and was discharged well on December 19th. He was treated by hydrargyrum cum creta, night and morning, from September to December 6th; and an ounce of decoction of cinchona three days. Beef-tea and milk, and two ounces of port wine, were given.

December 10th. He had broth diet and milk.

December 12th. He had half ordinary diet; on December 30th, ordinary diet.

Urine. December 2nd. The quantity in twenty-four hours was 51 oz.; specific gravity 1007; natural colour. The acidity per ounce was equal to twenty-five drops of soda solution. The total amount of uraee was 107-472 grains; of uric acid, 192 grains. There was a deposit of mucus-corpuscles.

January 8th, 1857. The quantity in twenty-four hours was 82 oz.; specific gravity 1012. The acidity per ounce was equal to forty drops of the soda solution. The total amount of uraee was 249-841 grains; of uric acid, a trace.

In this instance, the amount of the excreta had increased considerably during the period of convalescence. This may in part, no doubt, be attributed to the improved diet which he had for several days before the second analysis. The urine of different period was, however, in large quantity, though of low specific gravity.

Case XI. E. S., aged 30, female, was admitted December 12th. She had been ill about seven days before admission. She had typhoid fever, was convalescent about December 30th, and was discharged well about the middle of January. She was treated by thirty drops of cinchona cum creta, night and morning, for some days, with an ounce of mixture of acetate of ammonia three times a day; milk, and beef-tea.

December 15th. Five ounces of port wine were given.

December 30th. She had half ordinary diet, and a pint of porter; also an ounce of decoction of cinchona three times a day.

Urine. December 14th. The quantity in twenty-four hours was 47 oz., of clear light colour; specific gravity 1008. The acidity per ounce was equal to sixty-five drops of the soda solution. The total amount of uraee was 193-116 grains; of uric acid, 94 grains.

January 5th. The quantity in the last twenty-four hours was 79 oz.; it was clear; specific gravity 1012. The acidity per ounce was equal to sixty drops of soda solution. The total amount of uraee was 302-017 grains; of uric acid, a trace.

This case is very similar to the preceding; the same remarks apply. In both cases, the period of convalescence amounted to but a mere trace.

Case XII. A. P., aged 22, a male, was admitted June 26th, 1857, having been ill seven days before admission. He had typhoid fever, with diarrhoea. He was in the depth of fever about July 9th, began to convalesce about July 14th, and was doing quite well on August 14th. He was treated with six and a half drachm doses of quinine mixture from July 6th to 8th; afterwards with mixture of acetate of ammonia, and two grains of bicarbonate of ammonia, every four hours. Four grains of hydragyrum cum creta were also given on the night and morning of one day. He had broth, and five ounces of wine daily.

July 14th. He had half a pint of bottled porter, with half a draught of yeast.

July 17th. Half ordinary diet was ordered, with a pint of milk, and the same quantity of beef-tea.

July 20th. The fever continued:

1. Decocti eurichoio 3i; ammoniace bicarbonatis gr. ij. M.

Fiant haustus ter dio sundemus.

July 20th. He was ordered an egg daily.

August 3rd. He was ordered two ounces of port wine daily.

August 6th. He had a pint of bottled stout.

August 7th. He was ordered ordinary diet, with a pint of milk, and half a pint of beef-tea.

Urine. July 9th. The quantity in twenty-four hours was 38 oz.; specific gravity 1016. The acidity per ounce was equal to thirty-five drops of the soda solution. The urine was of pale red colour, nearly clear; it contained much albumen. The total amount of uraee was 388-512 grains; of uric acid, 190 grains. The urine deposited some casts, granular and corpusculated; and some renal epithelium.

August 1st. The quantity in twenty-four hours was 29 oz.; specific gravity 1023. The acidity per ounce was equal to forty drops of the soda solution. The colour was high, clear; there was no albumen, nor were there casts. The total amount of uraee was 289-192 grains; of uric acid, 8-245 grains.

In this case, elimination by the urine went on in much greater quantity during the depth of the fever than subse- quently, when health was being re-established. The presence of great quantity of renal epithelium, in the secreta during the Fever period, testify to the existence of renal congestion at that time, which subsequently ceased.

REMARKS. In cases IV, V, and VI, the amount of urinary uric acid was greater during convalescence; in I and VII, it was greater during fever. This no doubt depends partly on the circumstance that the analysis was made at an earlier period of the disease in the former than in the latter. The average date in the one is 18-2, in the other 11-33 days, from the commencement; as appears from the following table.
In the above cases there is the same diversity as noted by Dr. Parkes in instances of pyrexia; viz., increased elimination in some, diminished in others. I have examined the histories of the latter, but do not find that any sudden speculation took place during convalescence or absence of spots at once is likely to occur from the semi-transformed and retained matters being at last hurriedly evacuated.

The large flow of urine which took place in almost all the cases during convalescence deserves to be noted.

In Case 1 it amounted to 66 ounces on the thirtieth day, and in Case 2 to 82 ounces on the thirty-fourth day after improvement had commenced. This appears ascribable to remaining phthisis; or chronic phthisis, as has been passed 50 to 67 ounces of urine daily, of specific gravity 1010.

Few things are more apparent than the long continuance of the prostrating effect of fever. The system too often has received a coup from which it never fully recovers.

EPIDEMIOLOGY, HYGIENICS, AND STATISTICS.

ON THE SPOTS OBSERVED IN THE PROGRESS OF FEVER, AS A MEANS OF DIAGNOSIS.

Dr. HENRY KENNEDY of Dublin has published a paper on the diagnostic value of spots in fevers published in the Dublin Hospital Gazette for April 10th, 1857. He is of opinion that, with regard to these spots, views prevail which are not supported by facts. As example, he refers to the prevale of the opinion that such spots are as regularly occurring with a fever as the excreta are with the normal period; in fact, the popular medical theory of the day. I do strongly suspect it is unsound; and that it might easily, but for the clear necessity of supporting the patient's strength, lead to worse results. He adds, as an example, the case of a man without fever poison the conjunctivae, it is a material thing. What prospect have we of getting rid of it, especially if it multiplies itself as we conceive, by any kind of evacuation, except it be by the pulmonary exhalations. In deed, the breathing a free pure air I believe to be of the greatest importance; but I question exceedingly whether, in any fever except rheumatic, eliminatory remedies are of the least avail, supposing them to act beneficially by ridding the system of these, or mission it has imbibed. That they may do good by subduing local inflamations or congestion, is very intelligible, as when renal congestion of scarlatail origin is relieved by purging; but this is no more than effecting a determination of fluids elsewhere.

If in a malignant fever there comes a complication of dysentery, we do not give diuretics to carry off the poison by the urine, or put our trust in forcing copious sweats, but we treat the dysentery as a local inflammation, arrest its flux as soon as we can, and deal with the fever poison by fortifying the nervous system with quinins, and so enabling it to withstand the morbid influence. Who would wonder, in a bad case of erysipelas, of trying to get rid of the poison? Our instinct and our experience tell us that our task is to maintain the system in its struggle against it. The same is true in the case of snake bite, and, indeed, of most poisons once received into the blood. Should we think of elimination in the case of poisoning by opium or strychnine? In fact, the attempt is simply insensible in any such instance; the virus is diffused everywhere throughout the blood and fluids of the system, and we might probably evacuate all before the end was attained. The rational treatment of fevers therefore resolves itself into this: (1) to quiet inflammatory movement if it run high, locally or generally; (2) to sustain the several vital actions when in danger of failing in asthenia. In tropical fevers large bloodletting and purging are essential with spirits and rhenaments. Even in some forms of fever among ourselves the administration of tartar emetic and opium, as practised by Dr. Graves, is of the greatest benefit. Usually, however, at the commencement of such a fever, the patient is in no case sufficiently strong or quick of action to cause the sweat to flow in a manner to carry off such a poison as is occasioned in asthenia; and if any part become seriously engorged, a cautious local bleeding is to be associated with stimulants. An eminent physician once described his practice one in pneumonie cases occurring in fever as follows: "For such a case, I take by cupping from the chest, I give an ounce of wine."