culosis with emaciation, the earthy phosphates are increased. Competent observers have decided that mental excitement and intellectual exertion increase the amount of urinary water, increase also the urea, chlorine, sulphuric and phosphoric acids, notably the latter, and lessen the amount of uric acid. Yet, in the six cases of our first series, the PO^5 was only decreased in two of the cases of low delirium, in which we can hardly speak either of mental excitement or intellectual exertion; increase of PO^5 occurred in three cases, one of which was delirium tremens; whilst of those in which no delirium existed, there was great increase of PO^5 in the case of fatuity, great increase in the case of hemiplegia, with acute cerebral softening, with the mind quite clear and calm, and considerable increase in the chorea; whilst in the case of phthisis the increase was small, although delusions of a most horrible character haunted the patient night and day, and made life a burden to her.

It should be remarked that most of these cases were being fed on rather a low diet, including about twelve ounces of bread, one pint of fairly strong beef-tea, and about a pint of milk. The exceptions were the cases of phthisis and chorea, in which a meat diet was taken. Except the child suffering from traumatic tetanus, all the patients were adults. These observations tend to show that although a high temperature in cases in which delirium is a symptom, seems generally accompanied by an increased secretion of PO^5 , we yet may have a great increase in the excretion of this substance without any exaltation of temperature.

In some cases, as in puerperal mania, the excretion of PO^5 may be an index of the delirium, *plus* the heat; whilst in others the PO^5 may be largely increased without any exaltation of temperature, without any delirium, or, indeed, as in the case of fatuity, without evidence of the existence of any mental function. Whether, however, this state of fatuity is a condition in which all mental function is in abeyance, or whether it is not, sometimes, at least, a condition of mental activity, in which the connection between thoughts and their external expression is broken through shock or disease, is beyond our present purpose. It is, therefore, probable, that the amount of PO^5 excreted bears no certain relation to the character of the delirium, except this, that in delirium, accompanied by hyperæmia of brain, as in acute mania, or the acute delirium of French authors, there is an increase in the amount of PO^5 . In all other cases the relation seems wanting, although probably Dr. Bence Jones's observations on the diminution of PO^5 in delirium tremens, express a general, though not an universal truth; whilst the elevation of temperature depends upon such a vast number of complicated chemical actions—chemical actions that, under other circumstances, might produce work mechanical, or of some other kind, that any attempt to connect it with the excretion of one particular substance absolutely fails by experiment.

A PECULIAR FORM OF SCARLATINA.

By N. HECKFORD, Esq.,
Surgeon to the East London Children's Hospital.

I THINK it important to draw the attention of the members of our Association to my experience of a peculiar form of scarlatina lately prevalent in the eastern districts of London. In connection with the East London Children's Hospital, I have recently had under my care numerous cases which presented the following marked peculiarities. There was usually little or no febrile disturbance, often not sufficient to induce the mother to keep the child in bed. The rash was either altogether absent, or so slight, that no history of it could be obtained. The tongue did not exhibit its characteristic appearance. There was at first no accompanying sore throat; the submaxillary glands almost invariably inflamed, and, as a rule, the inflammation terminated in suppuration or sloughing. Indeed, it was for these "swellings in the throat" that the patients were often brought, the premonitory symptoms having been so slight as to escape notice. This condition was occasionally followed by a sort of diffident diphtheritic exudation, which exceptionally ended in ulceration of the fauces. At a later period, and especially in fatal cases, a rash appeared over the trunk and extremities resembling a purplish roseola. The mortality was excessively high. The record of the following chain of cases, being in-patients of the hospital, will aptly illustrate the insidious and marked character of this form of scarlatina.

CASE I.—Six weeks before admission, a boy, aged three years, living in a small street in which scarlatina was rife, was attacked with what was thought to be febricula; there was no sore throat or rash; the submaxillary glands inflamed and sloughed; the inflammation eventually greatly subsided, and matters promised well, but two deep sinuses, discharging a thin sanious pus remained. One night, at the end of this time, profuse venous hæmorrhage took place. Pressure by means of a compress saturated with a solution of perchloride of iron, arrested the bleeding

for two days, when it recurred, and again also on the fifth day. By this time the child had become quite blanched, and delirium traumaticum manifested itself. At this juncture I laid open the sinuses into one opening, and at the bottom of the wound, which was deep and sloughy, I found the blood issuing from a large vein, either the internal jugular or the internal maxillary. The jet was equal in size to a pigeon's quill. I determined to ligature the common carotid; but, being at the moment single-handed, I tightly plugged the wound with cotton-wool soaked in the perchloride, and directed manual pressure to be kept up. Soon afterwards, Mr. Buxton Shillitoe saw the case with me. The hæmorrhage having been completely checked, we resolved to give digital pressure a trial. This was continued without intermission for sixteen days. On the third a few drops of blood escaped, but on no other occasion. The plug was renewed every second or third day. Not long afterwards, the boy was discharged cured.

CASE II.—Three days after the admission of the above case, a strumous child, in the same ward, had an attack of typical scarlatina, sore throat, rash, "strawberry" tongue, etc. It died of dropsy and albuminuria.

CASE III.—Before the symptoms in the second case had unequivocally declared themselves, and the coming evil not being suspected, a boy, aged 8 years, was cut for stone by Mr. Shillitoe. Forty-eight hours after the operation it was evident that he, too, had scarlatina. He had high fever and a rash, but no sore throat. He made a most satisfactory recovery.

CASE IV.—A boy next to the above, also suffering from stone, but waiting for operation, went through a well-marked form of the disease.

CASE V.—A girl, aged five years, admitted for infantile paralysis of one leg, was apparently doing very well. For two or three days her appetite fell off, but she soon seemed to regain her usual status. However, as her face looked somewhat puffy, her urine was examined, and found to be highly albuminous. On the evening of the day this was discovered, having eaten her meals heartily, she vomited soon after going to bed. This was followed by urgent dyspnoea and sudden death. At the *post mortem* examination, both pleuræ and the pericardium were found filled with fluid.

CASE VI.—A stout healthy-looking girl (having hydatid of the liver), who, in common with the preceding case, had not been obliged to keep her bed for a single hour, was attacked with sudden and severe albuminuria. The only premonition was loss of appetite for a few days. She did not have dropsy, and is now well, excepting as regards her liver.

CASE VII.—This was a similar one to the two former, but the albumen was not copious.

OBSTETRIC MEMORANDA.

LACERATION OF VAGINA.

By A. B. STEELE, Esq., Lecturer on Midwifery, Liverpool Royal Infirmary School of Medicine.

I WAS summoned by a midwife to a woman, the mother of several children, who had been in labour for a few hours, all apparently going on well until just before I was sent for, when the pains ceased suddenly, and were replaced by a continuous sharp lancinating pain in the abdomen, the patient at the same time becoming very faint and sick, leading the midwife to suspect that rupture of the uterus had taken place. There was no unusual hæmorrhage. I found the woman in a state of incipient collapse; and, on examination *per vaginam*, the head low in the pelvis. I at once applied the forceps and delivered a living child in a few minutes and with very slight traction; the placenta followed immediately, with no more than the ordinary amount of discharge. On introducing my hand after delivery was completed, the uterus was found intact and moderately contracted; but in the situation of the posterior *cul-de-sac* of the vagina, was a rent large enough to admit easily the hand, which was readily passed along the posterior surface of the body of the uterus, and the convolutions of the intestines could be distinctly felt. The patient was carefully watched, opium was given freely, with stimulants, until reaction was established; and she gradually recovered without a bad symptom. The woman had been ill treated by her drunken husband, who, about a fortnight before labour came on, had kicked her violently in the back, which may possibly have caused the injury, although it is singular that so long an interval should elapse before the mischief manifested itself. The facility with which the forceps were used, and still more conclusively the pre-existence of symptoms of serious lesion before their application, show that the injury did not occur during delivery.