poison be there, we can't get it out; it is probably there for life; but we can so tone and fortify the system that it feels it not. So I believe we should act in pemphigus; and the force of the comparison is rather enhanced when we remember what good service the very same remedies, arsenic and bark, effect in both diseases. Of course *il va sans dire*, that, if there be manifest derangement of the liver, stomach, or any other organ, in pemphigus, we must correct it just as we would in ague. Arsenic is no specific for this or any other disease; but, judiciously used, it is an admirable toner of vaso-motor nerves, especially the cutaneous; and this, it seems to me, is just the thing that is needed.

Hebra has recently recorded a highly interesting case, the subject of a frightful and inveterate pemphigus, which was treated by continuous immersion in warm water for one hundred days. The pulse and respiration became less frequent, the temperature increased, and the appetite improved; the secretions were normal, except the urine, which seemed somewhat diminished; and the weight gained was fourteen pounds. (*London Medical Review*, Jan. 1862.) There can be no idea of elimination here; the benefit was doubtless owing to the exclusion of the air, and the soothing influence of moist warmth upon the diseased surface.

[To be continued.]

HULL GENERAL INFIRMARY.

REPORTS OF CASES.

By C. J. EVANS, Esq., House-Surgeon to the Infirmary.

CASE I. *Severe Burn with Oil of Vitriol, followed by an Attack of Erysipelas: Recovery.* Jane E. T. Robinson, aged 21, a servant, was admitted under the care of Mr. Huntington, on March 6th, 1858, having been severely burnt with oil of vitriol, which had been thrown at her by a man in a fit of jealousy on Feb. 24th, nine days previously. She was seen at the time of the injury by a surgeon, who applied oil to the burned parts. Both shoulders, the lower part of the neck, and the whole front of the chest as low as the breasts, were one entire ulcerating surface. The chin and right arm, which had also been burnt, were incrustated with dry scabs; as also both eyelids. Vision was perfect at this time; but for a short time after the injury, it was impaired in the right eye. She was ordered to have common diet. Flour was dusted over the sores, and cotton wool applied.

March 8th. The sores were dressed with calamine cerate spread on lint. She was ordered to take half a drachm of tincture of cinchona in an ounce of decoction of the same three times a day.

March 18th. She complained of passing but little urine, which scalded her. She slept badly. The sores were healthy. A demulcent mixture and a sedative at night were prescribed.

March 27th. She did not sleep so well as she did; in other respects she felt better. She was ordered to have four ounces of wine daily; and to take occasionally half a grain of hydrochlorate of morphia and half a drachm of spirits of nitric ether in some cinnamon water.

April 6th. Gutta serena splints were made and applied, for the purpose of keeping up the chin, which had a tendency to be drawn down by the contraction of the cicatrices on the neck and chest.

April 21st. On removing the dressing to-day, a considerable quantity of venous blood spouted out from a point above the right breast, and it required long continued pressure to stop the hæmorrhage. The girl's spirits, which before were very low, were still more depressed by this occurrence; and she said she was "sure she should not get over it."

May 4th. The granulations were bathed daily with

sulphate of copper lotion. When the benefit derived from one kind of application when first used became less marked, another was substituted for it.

May 12th. The sores were dressed with zinc ointment.

May 28th. The sores were irritable, and her general health was disturbed. Dressings of simple cerate were used; the zinc ointment being applied only where the granulations were exuberant.

June 12th. The breasts had nearly healed; the right shoulder and the neck were now the worst parts.

July 8th. A severe attack of erysipelas had set in, obliging her to take to her bed again. The face and neck were the parts chiefly affected. Flour was dusted over the inflamed parts. This attack prevented her from appearing at the Assizes to give evidence against the man who injured her. She took wine, quinine, beef-tea, etc.

July 13th. The erysipelas had spread over the whole face and chest, reopening sores that had healed, and producing fresh ulceration and sloughing in those that were advancing to cicatrization. The wine was increased to eight ounces daily, and the dose of quinine doubled.

July 15th. The erysipelas had centred in both breasts, disappearing from the head and face. The integuments of the breasts at the lower parts were sloughing. The patient was extremely low; she complained of dizziness and noises in the ears. The breasts were well supported by bandages passing beneath them and over the shoulders. She was ordered to omit the quinine, and to take instead five grains of sesquicarbonate of ammonia in an ounce of infusion of serpentina every four hours; and to have a pint of porter, in addition to the wine.

July 20th. She was improving. The sores were healthy.

August 1st. A small abscess had formed on the scalp and burst.

August 20th. The condition of the sores had rather retrograded. Parts that had healed broke out again; the new integument seemed in places to dissolve away as it were.

August 26th. An abscess which had formed in the right breast near the axilla was opened.

September 4th. The sores were healing very nicely. It being considered that change of air would be beneficial to her, she was made an out-patient, having been in the Infirmary six months; but up to this time she had been unable to leave with safety. The gutta serena apparatus not being sufficiently strong to keep the chin from being drawn down, an iron one was substituted, and made to rest in a socket in the front bone of her stays; this she was directed to wear for a long time, and it answered the purpose completely. She attended regularly to have her wounds dressed; and was discharged cured on October 20th, every sore having perfectly healed. The chin, the greater part of the front of the neck, the shoulders, and the whole front of the chest presented one almost continuous cicatrix. She was under treatment from first to last about eight months; and afterwards became very stout and healthy; but a year or so later she fell off, became rapidly weaker, and died of phthisis.

CASE II. *Burn of Back and Arms: Supervention of Chorea: Recovery.* Sarah Ann Hindley, aged 11, was admitted under the care of Mr. Craven on December 14, 1858, having been severely burnt on both arms, the sides of the chest, and upper part of the back. The burns were dressed with lint soaked in oil. She progressed favourably up to January 18th, when decided symptoms of chorea showed themselves. She was in constant motion, causing some difficulty in dressing the sores; had no sleep at night; and a cardiac murmur was distinctly audible. Her mother stated that she had never had chorea before, nor rheumatism. Ten grains of

jaiap and two of calomel were ordered to be taken every other morning; and a fourth of a grain of morphine every night.

Jan. 24th. The symptoms of chorea were less marked. The burns were dressed with zinc ointment. She was ordered to take ten minims of tincture of sesquichloride of iron three times a day.

Feb. 1st. She lay perfectly quiet now; there was only some unsteadiness in protruding the tongue. She had become much emaciated. Two grains of quinine were ordered to be taken three times a day, and a pint of porter daily.

Feb. 7th. There was much diarrhoea, and she passed her stools and urine under her. Four ounces of wine daily were substituted for the porter.

March 1st. The symptoms of chorea were more marked again, especially when she was awake at night. She was ordered to take the tincture of sesquichloride of iron again, in twenty minim doses.

She very slowly and gradually regained her strength during the next two or three months, and was made an out-patient on July 11th. At that time there was not the slightest symptom of chorea remaining; but the burns had not entirely healed till some time later. Through an over-sedulousness to prevent the elbows from becoming contracted during the cicatrization of the burns on the arms, these became stiff in an extended position, which afterwards rendered it necessary to flex them forcibly under the influence of chloroform, and to divide the tendon of the triceps muscle on one side. Considerable improvement was effected by this; but a slight amount of stiffness remained permanent.

CASE III. Extensive Scald of Back: Supervention of Tetanus: Recovery. Joseph Sillers, aged 23, was admitted under the care of Dr. Lunn, on April 13th, 1861, with a very severe scald of the back, extending on the left side from the shoulder to the nates. Some eight or ten years previously he met with a severe injury to the head, from which time he had been subject to "fits," occurring at distant intervals. He fell down on the morning of his admission in a fit, close to a steam-pipe, from which the steam issued upon him while he was in a state of unconsciousness; no one was near him at the time, so that he was severely scalded before his situation was found out.

Flour was sprinkled freely from a dredger over the scalded parts, which were then covered with a thick layer of cotton wool. He was ordered to have common diet. In a few days the carron oil was substituted as a dressing, and he did well up to

April 29th, when symptoms of tetanus showed themselves to a slight extent. There was some stiffness of the jaws, and pain along the ramus of the lower jaw on the right side. A linseed poultice was ordered to be applied to the jaw, and three drops of croton oil to be taken immediately.

April 30th. The symptoms were much the same; pupils a little dilated. He had been well purged. He was ordered ten grains of Dover's powder, to be taken at bedtime.

May 1st. The stiffness of the jaws had increased, and the abdominal muscles were hard and tense. There was no opisthotonos. Pulse 108; pupils much dilated. He was ordered eight grains of calomel to be taken immediately, and two ounces of common senna mixture after four hours.

May 2nd. The bowels were only slightly moved. The dose of croton-oil was repeated; and the burns were dressed with a lotion containing half a drachm of morphine in half a pint of warm water.

Evening. The pupils were now much contracted. The abdomen was softer; and he could open his jaws a little wider. He had been thoroughly purged.

May 4th. There was more hardness of the abdomen to-day; in other respects, he was much the same;

pupils natural. He was ordered to take forty minims of laudanum at bedtime; and the sores were dressed with a lotion containing, in the half-pint, two scruples of sulphate of zinc and one drachm of extract of belladonna. He was ordered to have a pint of beef-tea and half a pint of porter daily.

In the evening, the pupils were much dilated again.

May 6th. He could not bear the zinc lotion; so the sedative one was used again instead.

May 8th. Opisthotonos was now strongly marked; but the spasms were not very frequent. The porter made him sick; four ounces of wine were ordered instead. The croton-oil was repeated. He was very sick after this; and a purgative enema was ordered in the evening.

May 9th. The opisthotonos was less marked; the bowels had been well relieved after the enema. This was ordered to be repeated at night; and the wine was increased to six ounces.

May 11th. Opisthotonos was still less marked, and the abdomen was less rigid; some stiffness of the jaws continued. He slept a good deal, and took a fair amount of nourishment. He was ordered to omit the sedative lotion.

May 18th. He was daily improving. The wine was reduced to four ounces.

May 25th. The tetanic symptoms had now quite subsided, and he got up a little every day. The burns were dressed with sulphate of zinc lotion. He was ordered to have a pint of porter instead of the wine.

June 6th. He was made out-patient. He attended regularly at the surgery to have his sores dressed; in a few weeks more they had quite healed, and he was discharged cured.

CASE IV. Senile Gangrene: Good Effect of Low Diet. Robert Dunn, aged 58, a feeble old man, in comfortable circumstances, and of very intemperate habits, was admitted under the care of Dr. King on Dec. 17th, 1858. There was a sore of gangrenous appearance upon the great toe of the right foot. He was ordered to have a linseed poultice applied to the toe; to take five grains of soap and opium pill every night, and to have full diet.

Dec. 22nd. The gangrene had extended towards the dorsum of the foot. Resin ointment was ordered to be applied to the sore; an ounce of infusion of cinchona to be taken three times a day; and half a pint of porter daily.

Dec. 27th. The whole inner side of the foot now presented a purplish appearance. It was directed to be enveloped in cotton wool; and low diet was strictly enjoined (no porter or meat to be taken).

Dec. 29th. He had some pain in passing his urine, which was high coloured and thick. This was relieved by a demulcent mixture. The foot presented a better appearance.

Jan. 12th, 1859. A line of demarcation was forming just in front of the metatarso-phalangeal joint of the great toe. The soap and opium was ordered to be omitted, and a fourth part of a grain of muriate of morphia to be taken every night instead. He was allowed half a pint of milk night and morning.

Jan. 15. The toe was beginning to separate. An abscess, which had formed on the dorsum of the foot anteriorly, was lanced. The morphine was ordered to be taken in the morning as well as at night; and a linseed meal poultice to be applied to the foot.

Jan. 29th. The morphine was ordered to be omitted, and two grains of solid opium to be taken twice a day instead.

He took the opium twice a day for a considerable time, gradually at last leaving it off. An abscess afterwards formed in the sole of the foot, and was opened. He was discharged cured on May 6th. From the 27th December up to that time—rather more than four months—he was not allowed a drop of malt liquor nor

spirit of any kind; and tasted meat twice only. He was strictly watched during that time; and there is reason to believe that nothing of the kind was conveyed to him clandestinely.

Original Communications.

HOSPITAL EXPERIMENTS ON THE SUPPOSED THERAPEUTICAL ACTION OF THE EXCRETA OF SERPENTS.

By RICHARD PAYNE COTTON, M.D.; Fellow of the Royal College of Physicians, London: Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

SOME of my professional brethren may, perhaps, think that I owe them an apology for the following experimental inquiry upon the action of the *excreta of serpents*. To such, therefore, I would offer a brief explanation of my views on the subject.

It seemed to me passing strange that our old enemy the serpent should turn out in this nineteenth century to be so great a benefactor as to supply us with a cure for phthisis; and this too by certain *excreta* chemically allied to that which, being so abundantly eliminated by our own renal organs, must obviously be regarded not only as unnecessary, but actually prejudicial. I had, moreover, long been convinced that for consumption there is not, and probably never will be, a *specific* remedy; the origin, the course, and the whole pathology of the disease irresistibly leading to such a conclusion. It will be evident, therefore, that my trial of the *excreta* was not dictated by any very hopeful expectation.

Many are the so-called "*specifics* for Consumption" introduced to my colleagues and myself at the Consumption Hospital, and urgent are the appeals to try them; but the object of their respective authors is either too obvious or too doubtful to deserve attention. With the *excreta* of reptiles, however, the case was different. Dr. Hastings has published his new remedy to the world, and invited other physicians to try it. Already have many consumptive sufferers taken it; some are reported to have spoken highly of its efficacy; and two such cases have come to my own knowledge. I felt, therefore, that I could hardly resist an appeal from one or two non-professional friends to try the far-famed *excreta*; and that by refusing to do so, I should fairly expose myself to that imputation of prejudice and dogmatism with which the legitimate practitioner is so constantly, and perhaps not altogether unreasonably, taxed.

To Mr. Harington, Resident Clinical Assistant at the Consumption Hospital, I am indebted for notes of the cases subjected to the experiment; and to him as well as to Mr. Edwards, Resident Medical Officer, who saw the patients daily, I can confidently refer as witnesses of the fairness of the inquiry, and the carefulness with which it was conducted. To avoid any possible error, the latter gentleman undertook the preparation of the *excreta* according to the following formula, which I obtained from Dr. Hastings. Eight grains of the *excreta* of the python were dissolved in sixteen ounces of water by the agency of three drachms of liquor potassæ. From this solution, the lithate of ammonia was partly or wholly precipitated by the addition of ten drops of strong sulphuric acid. This mixture, when filtered, constituted a lotion which was to be rubbed all over the chest two or three times a day; whilst one drachm of the same solution, diluted with six ounces of water, formed a mixture for internal administration, half an

ounce of it being given two or three times daily. Both the lotion and mixture were clear, colourless, and almost if not quite tasteless, and were compared by many of the patients (who were entirely ignorant of their composition) to rain water.

The following is a description, as brief as possible, of the cases, and how they were influenced by the treatment. The *inverted commas* indicate the patients' own remarks.

CASE I. *Phthisis: third stage*. W. S., aged 30, omnibus conductor. Chronic phthisis, with ordinary symptoms of some severity. Considerable cough, and dyspnoea. Cavernous breathing at the apex of left lung.

April 4th. To use the *excreta* lotion freely, and take the mixture twice daily.

April 8th. The same as on admission: cough and shortness of breathing unrelieved.

April 19th. "No improvement" in any of the symptoms.

CASE II. *Phthisis: third stage*. J. H. aged 39, manservant. Very chronic phthisis in an advanced condition. Dyspnoea, cough, night perspirations. Cavernous breathing with gurgling at the apex of the right lung; humid crackling at the apex of the left lung.

Has been in the hospital some weeks, under general tonic treatment, but without benefit.

April 4th. To have the chest rubbed with the lotion three times a day; and take the mixture twice a day.

April 11th. Breathing much easier; no other change. *The lotion changed for distilled water.*

April 15th. "*Lotion still relieves the breathing;*" but he does not feel so well as when taking the former tonics.

CASE III. *Phthisis: third stage*. G. G., aged 39, bricklayer. Chronic phthisis of ordinary character: severe cough. Cavernous breathing at the apex of the left lung.

Has been in the hospital for some time, and improving under quinine and cod-liver oil.

April 4th. To take half an ounce of the mixture three times a day.

April 11th. No change in any of the symptoms.

April 16th. Became so dissatisfied with the change, that at his own request he returned to his former tonics.

April 20th. "Feels better since taking the quinine and oil."

CASE IV. *Phthisis: first stage*. H. R., aged 25, cabinet-maker. Chronic phthisis, associated with general bronchitis and great dyspnoea. Weak respiration, with abundant subcrepitant rhonchus at the apex of the right lung. Percussion duller, with subcrepitant rhonchus at the apex of the left lung.

April 8th. To continue the remedies under which he has been gradually improving for some weeks, and to rub the chest frequently with the lotion.

April 11th. "No relief to breathing."

April 19th. "No better." Lotion discontinued.

CASE V. *Phthisis: first stage*. C. B., aged 31, housemaid. Chronic phthisis, with much cough and thoracic pain and distress. Dulness on percussion, and subcrepitant rhonchus at the apex of the left lung. Had previously taken tonics and cod-liver oil, with very little advantage.

April 4th. To take the mixture twice, and use the lotion three times daily.

April 8th. "No difference."

April 17th. Thinks the lotion has given her cold. No general improvement; left hospital at her own request.

CASE VI. *Phthisis: first stage*. M. S., aged 21, maidservant. Phthisis in quiescent condition: much cough and dyspnoea of nervous character. Harsh and weak respiration at the apex of the right lung. Had been in hospital some time, and improving under steel, etc.