ON
THE MEDICINAL PROPERTIES
OF
CREOSOTE.

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IN my work upon the diseases of the heart *, I began by stating that I conceived practical medicine was to be perfected by improvements in our knowledge of the nature of diseases, obtained through the cultivation of anatomy and physiology, and of morbid anatomy and morbid physiology ; by improvements in diagnosis ; and by improvements in our acquaintance with remedies and their application. With respect to the third mode, I expressed my belief that “ much remains to be accomplished in the discovery both of the virtues of medicines already in use, and of new medicines or such modifications of old ones as almost entitle them to the epithet new. Every advance in our knowledge of the essential nature of disease will no doubt enable us to improve our application of

* On the Recent Improvements in the Art of distinguishing the various Diseases of the Heart. Folio, with copper-plates. 1830.

remedies upon general principles, and to improve our general indications. But, without any additional knowledge of the nature of diseases, cautious trial, guided by the best analogy we may discern, or by some fortuitous occurrence, will enable us, if we are disposed to labour, to effect much in extending our knowledge of the powers of particular remedies over particular diseases. Lord Bacon regrets that physicians apply themselves so exclusively to general indications, neglecting the peculiar properties of remedies in particular diseases. ‘*Medici, hujusce ætatis,*’ he says, ‘*licet generales intentiones curationum non male persequantur, particulares tamen medicinas quæ ad curationes morborum singulorum proprietate quadam spectant, aut non bene norunt, aut non religiose observant.*’ He remarks that they merely go on in their prescriptions, ‘*addendo, et demendo, et mutando, circa medicinas, pro ut iis libitum fuerit, et fere pharmacopœorum more, quid pro quo substituendo*’; and he advises that some physicians ‘*et eruditione et practica insignes, opus aliquod conficiant de medicinis probatis et experimentalibus ad morbos particulares.*’” *

On every occasion that I have laid the results of my enquiries into the properties of medicines formally before the public, (and with one exception it has always been by means of this Society,) I have carefully detailed the circumstances by which I was led,

* Instauratio Magna. First Part.

—sometimes information supplied by others, sometimes an accidental fact, and sometimes a fancied analogy. This I shall do at present.

In the early part of last year, I found that M. Reichenbach had discovered a new principle in pyroligneous acid and all the tars, called Creosote by him from its property of preserving animal matter, and said to cure a variety of diseases. Having learnt the doses in which it was administered, I commenced a trial with it, in the beginning of July, at St. Thomas's Hospital, in cases of two diseases, which, being among the chief opprobria medicorum, justify any new attempt at cure that is not dangerous or absurd. The diseases I selected were phthisis and epilepsy. The medicine proved stimulating; and, if the first dose exceeded two or three drops, nausea, vomiting, vertigo, headache, and heat of the head, were generally the consequence: although, if the dose was at first only one or two drops, many patients bore a gradual increase of it to six, and some to ten, twenty, or even more, without unpleasant effect. As is observed with all powerful remedies, a very minute dose only can be borne by some persons. I have known individuals not bear more than a fraction of a drop of Scheele's prussic acid or of Whitlaw's tincture of lobelia inflata, or the fraction of a grain of the hydriodate of potass. Accordingly, I have known some patients not bear more than a fraction of a drop of Creosote. On the other hand, as a few persons will bear and even require a gradual aug-

mentation of the dose of Scheele's prussic acid to fʒss, —of Whitlaw's tincture of lobelia inflata, to upwards of fʒss, and of hydriodate of potass to upwards of ʒss, —so I knew a lady steadily augment her dose of Créosote to forty drops, before it disagreed: the addition of a single drop beyond this produced extreme giddiness, insensibility, and vomiting, followed by headache for several days. I found it much more likely to disagree if not well diluted; though, the longer it is given, the less dilution frequently is necessary. At first, every drop usually requires about half an ounce of water; and few persons can take many drops in much less than half a pint, without experiencing at least considerable heat, in the tongue especially, and in the pharynx, œsophagus, and stomach. I have always suspended it in the water by first mixing it with a little mucilage. My trials with it internally in phthisis were perfectly unsuccessful. I have since made many phthisical patients breathe for four or five minutes, four or five times a day, through a mixture of it with mucilage and water, but with no further effect in general than occasionally an increased facility of respiration, and a diminution of the cough and expectoration. I put one drop into rather less than a pint of cold water, and add one drop every time it is employed, in order to maintain the strength of the liquid, till this appears growing too strong; and then the patients inhale without adding any, till the liquid appears growing weak again. Some it always appears to irritate, and all in whom any degree of inflammation exists. I

am satisfied that it is no remedy for tubercles. Where, however, only a single ulcer, or but a small number, exist in the lungs, and there is no disposition to farther tubercular formation, it is very beneficial. One young gentleman, with a large solitary cavity in his left lung, has completely recovered, and not the slightest morbid condition is discoverable by the ear. In bronchorrhœa, or that state of the bronchial mucous membrane which consists in a profuse secretion without inflammation, I have seen its inhalation of essential service. In one instance of this affection, in which the expectoration was extremely offensive, the cure was very rapid. In asthma, also, dependent upon morbid excitability of the bronchial membrane, its inhalation is often useful. Even where it agrees perfectly well, the inhalation frequently induces a heat of the tip of the tongue.

The other disease which I had selected originally for a trial of the remedy, appeared in some instances a little under its control; a few epileptic patients for a time had milder fits, and at longer intervals. But, except in one or two instances, the disease returned with its former severity, or was uninfluenced altogether; occasionally, I think I saw it aggravated. All this was to be expected when we consider the infinite variety of the causes of epilepsy and the irremediable nature of many. The tranquillizing effect, however, of Creosote in some instances of this nervous disease, encouraged me to exhibit it in neu-

ralgia, hysteria, and that general morbid excitability which is sometimes denominated extreme nervousness.

The first case of neuralgia, or what appeared so, occurred in a girl, 12 years of age, who, after the influenza a year previously, had gradually become so costive, as to have an evacuation but once in three or four days, and then with great pain. In this condition she was suddenly seized with spasms in the abdomen, twitchings in the legs and arms, and extreme agony in the lowest part of the abdomen and pelvis. An attack of this kind frequently recurred, and at length came on every morning about 7 or 8 o'clock and lasted till night, when she fell into a comatose state till towards morning. The pain was such that she constantly sat moving backwards and forwards, wringing her hands, or pressing the lowest part of her abdomen ; her face was expressive of intense suffering, and she was much reduced. At the time of her admission into the hospital she had made water but once in twenty-four hours for the last three months, the abdomen was very tense, though but little swollen, and gave a hollow sound on percussion. The urine and alvine discharge were of a healthy character, and the bladder on sounding gave no indication of disease. Every known medicine likely to prove beneficial had been exhibited in the country. She was one of the most distressing objects I ever beheld, and I utterly despaired of any improvement. Three grains of muriate of morphia every morning perhaps alleviated her sufferings ; but

so little, that I discontinued it. On the 22nd of July, I ordered a drop of Creosote to be taken three times a-day, and the dose was gradually increased to seven. She began to improve rapidly, and left the hospital perfectly well in a month from the commencement of its use ; and in the mean time she had regained her flesh and every appearance of perfect health.

The next case was one of neuralgia of the posterior dental and nasal twigs of the superior maxillary nerve ; the pain was of that dreadful kind which we so often witness, causing great contortions of the countenance, and had existed three months. The man had been affected in a similar way three years previously, and had recovered without medical aid. He began the use of the Creosote in doses of three minims three times a day on the 22d of August ; on the 28th he was taking doses of six minims, and for the first time was better. The attacks, which had hitherto come on every five or six minutes during the day, and seriously interrupted his sleep, had become less frequent, and he had slept the previous night more than he had done for two months. He steadily improved, the Creosote having been slowly increased to eighteen minims, and on the 28th of August he was so well and happy that he would have left the hospital but for a slight cough. He had no relapse during his stay.

I have had two other cases of this severe form of neuralgia, occurring in the thumb or finger, in

which the remedy, after an exhibition of many weeks, had nearly subdued the complaint at the time I last heard from the patients. The medicine appears therefore to be one of those which are remedies in neuralgia. But, like them all, it will frequently fail, and I have frequently known it fail; for neuralgia, like epilepsy and paralysis, depends upon many causes, and these must require various modes of treatment, and be in their nature sometimes uncontrollable. In rheumatic neuralgia, not inflammatory, I imagine it is, that Creosote is the most successful. In that morbid tenderness of the surface of the body which appears so nearly allied to neuralgia, and which so often occurs in females, I have not seen it of any use. In common hysteria, unconnected with inflammatory condition of any part, I have often seen it considerably lessen the disease; the more rare and strange forms of hysteria have yielded to it; and the morbid excitability of those who are called nervous persons, I have frequently seen abated by it in a remarkable manner. In the latter description of persons, however, it is better to begin with no more than half a drop, as occasionally more at first produces excitement of the head. Palpitation, depending upon mere morbid excitability of the heart, has yielded to it far more than to other remedies.

While I was trying Creosote in phthisis and epilepsy, Asiatic cholera* became epidemic in London; and, not

* The disease appears to have obtained this absurd name from the sudden appearance of vomiting, purging, and spasms in it,

being satisfied with any mode of treating that disease, I requested that, if any of my patients at St. Thomas's were seized with it, Creosote might be given them. Two cases occurred, and Creosote was given with the effect of immediately arresting the vomiting; but the patients died. The fact, however, of the vomiting being subdued, led me to ascertain whether

just as in true *cholera*; the totally different nature of the matter discharged, and the various peculiarities which show it to be a specific disease and not a merely inordinate natural secretion, being overlooked. But as it entirely suppresses the bile, and also is a specific affection, we surely should no longer call it *bile-flow*, and should give it a distinct appellation. Even the term leucorrhœa would be far more appropriate than cholera, which signifies the very opposite to fact; but this term is already engaged. *Acholia* (nulla bilis) is a good Greek word, and harmonizes with a characteristic fact. *Asiatic acholia* might be thought still more designative.

Perhaps I may be allowed this opportunity for expressing my regret that, without some resolution, the absurd name—*apoplexy of the lung*, and, as I fancy, the illegitimate name—*pneumo-thorax*, will be established.

The lungs can no more be affected with apoplexy than with dyspepsia. Apoplexy is a loss of all sense and voluntary motion,—a suspension of the functions of the brain. This may arise from debility, poisons, pressure by bone, serum, or blood, &c. But, because, in fatal cases of the disease, we sometimes find that congestion and effusion of blood have been the source of the *symptoms* called apoplexy, circumscribed congestions and effusions of blood in the lungs have been strangely termed apoplexy. The condition appears in all respects so exactly what we call ecchymosis, if near the surface of the body or in membranes, that, rather than coin a new name, I would term it ecchymosis of the lungs.

Instead of pneumo-thorax, we should, I conceive, say pneumato-

Creosote was a remedy or not for vomiting. An abundance of opportunities soon presented themselves, and its extraordinary power of arresting vomiting, when not dependent upon inflammation or structural disease of the organ, I consider perfectly established. When inflammation of the organ exists, the stimulant power of the medicine must do harm, and more than

thorax. Because substantives, not derived from, but *composed* of, a *substantive* prefixed to another *existing noun*, there being no action between the things, or government or agreement between the words, are always made from the dative of the first (its final letter or diphthong being usually changed to *o*, if there is another vowel) prefixed to the nominative of the second noun. Thus we say, varico-cele, sarco-cele, hepato-cystic, gastro-enteritis, hæmato-cele, and, what must strike forcibly, pneumat-omphalos, and actually pneumato-cele: because the genitive of varix is varicis, of σὰρξ σαρκός, of hepar hepatitis, of γαστήρ γαστρός, of αἷμα αἵματος, of πνεῦμα πνεύματος, and the dative is correspondent. We say also, cerebro-spinal, æri-form, and hydero- contracted to hydro-thorax, &c. from ὕδρος, dropsy. Even where there is action or government between the two, this rule is often followed; as in pectori-loquy, utero-gestation. If hæmorrhagia is adduced as an exception, I reply that it is not composed of two existing substantives, because there is no such substantive as ragia, but that it is *derived* from the verb αἱμορραγέω. Βούγλωσσον, the herb bugloss, is no exception, for there is no such substantive as γλωσσον. It is *derived* from βούς and γλώσσα. If it is contended that hydro-phobia, hydro-mel, &c., are exceptions, and come from ὕδωρ, I answer that they come from ὕδρεϊ, the unemployed dative of ὕδωρ, which borrows its established dative ὕδατι from its unemployed root ὕδασ.

M. Chaussier has given the new name of pneumo-gastric (for lung-gastric) to the eighth pair of nerves. If this were correct, pneumo-thorax should mean lung in the thorax. But the genitive of πνεύμων is πνευμόνος, and the name should therefore be pneumono-gastric.

counterbalance its soothing properties. Where structural disease exists in the stomach, the diseased surface may not bear such a stimulant except in the minutest quantity; and a minute quantity, even should it arrest the vomiting, is very likely to aggravate pain. Although some do not dislike it, and others who dislike it at first actually find it at length rather agreeable, a few are so disgusted with the smell of tar that they are made sick by any attempt to take Creosote: but, with these exceptions, I know of no medicine at all to be compared with it in arresting vomiting. I have repeatedly seen it succeed after the failure of prussic acid, which is the most powerful remedy I previously was acquainted with in subduing this action of the stomach. Different doses and different frequency of repetition are requisite to produce this effect in different instances. The dose may easily be too large or too small. More than two drops I have sometimes seen aggravate the sickness, and sometimes I have begun with three drops every three hours, and been obliged even to give more. One or two drops may be given every hour or half hour till the vomiting ceases; and, if a dose is rejected, it should be repeated immediately. The first dose frequently succeeds. I could detail fifty cases of vomiting in the practice of myself and friends, and both in public institutions and in private practice, illustrative of its extraordinary power in this respect. In colic and enteritis it arrests the vomiting long before the bowels are opened, and purgatives are thus retained which were all rejected previ-

ously to its exhibition. Even in a case of severe vomiting, apparently from arsenic, which usually excites inflammation of the stomach, I have known it succeed astonishingly, as well as in the only case of vomiting from pregnancy in which I have had an opportunity of trying it: and in sea sickness, in which, however, my experience of its power is yet limited, though a number of my friends have promised to take it abroad with them. Of course, as it subdues vomiting, its power is equally great over nausea. When *properly* given in nausea or vomiting, without inflammation or structural disease of the stomach, I have not yet known it fail, except in one remarkable case.—A boy, fourteen years of age, had, for two years, instantly vomited whatever he took, without effort and without any diseased condition with which the occurrence could be connected. He was rather weak, thin, and pale, but otherwise in perfect health, except that he confessed being rather giddy and had a habit of knitting his brows,—symptoms which at length made me suspect that the cause was in his head. Creosote, as far as it was tried, failed in him, though given in doses of three drops, and repeated frequently, so frequently in one day as thirty times. I proposed augmenting the dose, but he was unhappy at being from home, and left the Hospital of the University*.

* I have seen but three cases of this description of vomiting,—cases in which the vomiting was chronic and not a symptom, but the disease. The first occurred in a girl, who had been long under treatment when she was brought to St. Thomas's. Prussic acid failed, and she was taken home before I could make further at-

I was led to discover the power of prussic acid over vomiting, by witnessing its effects in gastrodynia, when given in mistake; analogy inducing me to fancy that, as it lessened pain of the stomach, it might lessen inordinate action*. When I was sure of the power of hydrocyanic acid in this particular, as well as over simple nausea, I hoped it might be equally serviceable in preventing nausea and vomiting from medicines calculated to disagree with the stomach; and one of the most useful properties of that acid is, when given simultaneously with, or, what is better, a quarter of an hour before, medicines which frequently disagree with the stomach, to enable the organ to bear them, in moderate doses at least, with impunity.

My discovery of the power of Creosote in preventing vomiting was not the result of reasoning. The medicine was given in cholera to see what it would do, and it arrested vomiting. When, however, I had ascertained this power, I was led, as in the case of prussic acid, to enquire whether it would, like that agent, prevent other medicines from exciting nausea and vomiting; and I find it,

tempts to relieve her. The last case is now under my care: and is that of a young man who, though otherwise in perfect health, has vomited his breakfast invariably for five years. Upon close enquiry, I find he sometimes experiences giddiness and pain of the temples. Creosote has hitherto failed in him.—Aug 14.

* Numerous Cases illustrative of the Efficacy of Hydrocyanic or Prussic Acid in Affections of the Stomach. 8vo. 1820.

by daily experience, even to surpass prussic acid in this particular. I have enabled the stomach to bear hydriodate of potass, sulphate of copper, sulphate of iron, and many diuretics, &c., in much larger quantities than those previously rejected. Just as I have often seen it arrest vomiting, where prussic acid had failed, so I have seen it enable the stomach to bear medicines, when they had been rejected in spite of prussic acid.

Although I have sometimes seen mere gastrodynia unrelieved by it, and have found this symptom subdued perhaps more by prussic acid, numerous cases of general derangement of the stomach, liability to nausea or vomiting, acidity, pain, &c., often yield to it in a most remarkable manner. Where the chief or almost only symptom has been flatulence, I have occasionally seen this unrelieved or augmented. When gastrodynia or flatulence has been united with other symptoms of derangement of the stomach, I have combined prussic acid and Creosote with great benefit. Indeed, when either fails in dyspepsia, I should advise their union. Prussic acid has this advantage over Creosote, that it is admissible when a degree of inflammatory condition exists in derangement of the stomach, although it cannot directly control the inflammatory portion of the disease. A perseverance in a moderate employment of Creosote frequently restores the powers of the stomach in the most satisfactory manner, not only as tar-water undoubtedly does, but I should imagine very

far better, since Creosote bears the same medicinal relation to tar that quinine does to cinchona.

Bishop Berkeley, in his answer to those who accused him of pretending to discover a panacea, replies that, to speak out, he freely owns that he suspects tar-water is a panacea; and, as the old philosopher cried aloud, says he, from the house-top to his fellow citizens, *Educate your children*, so I confess, if I had a situation high enough, and a voice loud enough, I would cry out to all the valetudinarians upon earth, *Drink tar-water*. In thus extolling a remedy, he ruined it; and, as his enemies bitterly hinted that the lines of Pope,

“Manners with candour are to Benson given,
To Berkeley every virtue under heaven,”

were calculated really to ruin his character, so they urged that the extravagant praises bestowed by himself upon tar-water proved its worthlessness. Yet the experience of many with tar-water, and my own with Creosote, satisfy me that, however absurd was the excellent and acute bishop's panegyric, he really had been surprised, as he says, to see persons, fallen away and languishing under a bad digestion, after a few weeks recover a good stomach, and with it flesh and strength, so as to seem renewed by the drinking of tar-water.

In regard to the bowels, it in general has no effect upon them, so that aperients are as requisite as if it

was not taken. It sometimes augments the urine very much, and, if this is put into a bottle, it may be distinctly smelt in the fluid when the cork is withdrawn. I once saw it, in doses of a minim three times a day, cause micturition nine times in an hour. Three trials were made of it, but always with the same effect. The gentleman habitually made water nine times in the twenty-four hours. In another case, in doses of three minims, it produced severe strangury. It appears in many respects to resemble the oil of turpentine.

In all these investigations I remained carefully ignorant of what others had said of the remedy, lest my mind should receive any prejudice; but I casually read an account of a case of diabetes cured by it, and resolved to ascertain whether the remedy really possessed any power over this affection.

On the 13th of August, I was requested to see a gentleman from the country, about sixty years of age, plethoric, with a full pulse: his mind was dull, and he had suffered two attacks of paralysis: his tongue was very yellow, and black at the centre towards the root. He told me his complaint was extreme thirst, so that he was drinking all day, and was enraged if drink were not taken to him the moment he called for it. He said he had been ill four or five years, was much worse always in autumn, much better in spring. He passed but four pints of urine, according to his own account, but confessed that he

made water twelve times a day and three times in the night. I found it contain a large quantity of sugar. I ordered him Creosote. I saw him again on the 10th of September, when he was making water but six times in the day and once in the night. It contained scarcely any sugar; his tongue was clean, and he told me that he felt perfectly well in every respect. The qualities of the urine I could not ascertain.

On the 8th of November, a young medical gentleman, who had been labouring under diabetes for eight months, consulted Dr. Kerrison and myself. He had been in hot climates. He was making twenty-four pints of urine a day; it contained much sugar; its specific gravity was 1038; it was very frothy. Everything, he said, turned acid upon his stomach. He was exceedingly costive, and had been impotent for two years. We agreed that he should take Creosote. On the 25th of November, he called to say that his spirits were greatly improved, and his strength much increased: the change, indeed, in his general health was surprising. The state of his urine I could not examine, nor have I heard of him since.

On the 19th of November, a gentleman aged about forty applied to me, who had laboured under diabetes for six months, and usually made about twelve pints of urine in twenty-four hours. It contained sugar, and its specific gravity was 1031. His skin was always moist. He took Creosote. On the 27th of November I saw him again, when his thirst

was less, his health better. In December I saw him a third time; he had then no thirst, made but about three pints of urine in the twenty-four hours, and felt his general health surprisingly improved. The urine, however, though much less in quantity, was 1037. I have since heard that he is doing well.

The cases are very imperfect; but the disease is comparatively so rare, that I thought it worth while to relate them.

Such are the facts which have hitherto occurred to me in regard to Creosote. That it is applicable to certain diseases and certain forms of diseases only, is evident. But that, with due attention in its administration, it is an excellent remedy, must be equally evident; and it probably is applicable to many other cases than those to which I have been induced to apply it.

Of its external application I can speak favourably. When an ulcerated surface has required a stimulus, or when a slough, or unhealthy, perhaps offensive, discharge existed, I, like others, have seen it of great utility. As it prevents or arrests putrefaction, and removes all taint in dead matter, we cannot be surprised at its removing the offensive nature of discharges, whether from mucous membranes or ulcers, and preventing the injurious effects of diseased animal matter upon the part with which it is in contact. When the contents of the intestines have been very offensive, I have impregnated clysters with it advantageously; and I have employed it as a wash in

mercurial fœtor as well as ulceration, and in fœtor of various parts of the system. I have seen foul ulcers become clean, and ulcers of long standing have sometimes healed rapidly on its application. Its agency in vomica and bronchorrhœa is clearly the same as in its external application. Wherever tar is useful, it may be expected to be equally so. In two cases of pruritus podicis it lessened the distress considerably after every thing else had failed. Here it was applied pure, as in cases of tooth-ache, which it often at once removes. But usually from half a drop to two or three, diffused by mucilage in an ounce of water, is sufficient, though its application must be very frequent. It appears to have been sometimes useful in porrigo, employed pure or variously diluted.

P.S. August. It is now a year since I began my trials of Creosote,—the period to which my trials of every other remedy extended before I communicated my results to the profession; and my experience, subsequent to my paper being read in the Society, confirms every thing I advanced both negatively and positively. Its extraordinary power over nausea and vomiting, and dyspepsia, I have witnessed in at least fifty more cases, in which the stomach was neither inflamed nor diseased in its structure; a case of severe hiccup has at once yielded to it. I have prescribed it in a fourth case of diabetes, and am able to give a further history of the three already mentioned, but which warranted no conclusion as to the curative

powers of the remedy. Although all the three found their health improved, I stated that the specific gravity of the urine of two was unaltered. The last of the three appears to have neglected his medicine, to have gone abroad, and consulted many persons; and he died, Dr. Kerrison informs me, two months ago, but under what circumstances we are ignorant. The second I saw two months since, not at all worse, but not farther improved, his urine being of the same specific gravity. The first I saw six weeks back, and he complained again of thirst and frequent micturition, but his appearance was not worse; indeed it was very good. I had no means of ascertaining the quantity or specific gravity of his urine. In none was the dose pushed very far. The fourth case is now under treatment in the North London Hospital. The patient is a young man, and takes eighteen drops of Creosote three times a day. He has had a large abscess in the loins, and one of his lungs is ulcerated; but his urine is reduced from thirteen to seven pints, and his health is improved. The specific gravity of his urine is reduced. It was 1037 at his admission above three months ago; it is now 1030. It is remarkable that he took his twenty-two drops of Creosote in only an ounce of water, so that it burnt the mouth of every body else who tasted it. On my learning this, I begged him to take it well diluted, and it instantly produced vertigo and headache. The dose is now twenty, and agrees perfectly, though diluted with only an ounce of water.

Tar-water was celebrated in chronic diseases of

the skin. In a case of severe acne indurata, which had lasted some years in spite of all treatment, a perseverance of six months with Creosote accomplished all but a cure; and the face still remains in the state of improvement which was effected. In a chronic pustular disease, not remediable by antiphlogistic measures, I certainly never saw such good from any medicine before. The woman began the remedy in November. Her urine became black in February, and remained so for a short time. I was not informed of the circumstance till after it had ceased, and did not see the urine; and I understand that other patients taking the remedy in the hospital have occasionally experienced the same effect for a short time. Some private patients have described the colour of the urine as green.

But I am anxious to mention its effect in two cases of chronic glanders, affecting one nostril and the frontal sinuses with pain and a copious and foetid discharge. The disease in the two persons was clearly contracted from a glandered horse, and I purpose doing myself the honour of laying the facts before the Society early next session, as I never read of or met with an instance like these in the human subject; former cases having been acute glanders, or chronic farcy. The sedulous injection of a weak solution of Creosote up the nostril, removed the whole of the symptoms, after a very few weeks, and I hear the patients are still well. I need not say that the disease has always hitherto proved fatal in the horse.