

Five cases of recovery from the effects of arsenic : with the methods so successfully employed for detecting the white metallic oxide ; in which the very delicate and satisfactory tests peculiar to Mr. Hume were principally adopted, as well as some others of a more crude nature, formerly in use ; to which are annexed many corroborating facts, never before published, relative to the guilt of Eliza Fenning / [John Marshall].

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FIVE CASES

OF

RECOVERY FROM THE EFFECTS OF ARSENIC;

WITH

*The methods so successfully employed for detecting the
white metallic oxide; in which the very delicate and
satisfactory tests peculiar to Mr. Hume were
principally adopted, as well as some
others of a more crude nature,
formerly in use.*

TO WHICH ARE ANNEXED

MANY CORROBORATING FACTS, NEVER BEFORE PUBLISHED,

RELATIVE TO THE

GUILT OF ELIZA FENNING.

— — — — —
BY JOHN MARSHALL,

MEMBER OF THE ROYAL COLLEGE OF SURGEONS, AND APOTHECARY TO
H. R. H. THE DUKE OF GLOUCESTER'S HOUSEHOLD, &c.

“ Non doctis, sed discipulis,
“ Non eruditis, sed erudiendis.”

LONDON:

Printed by W. M^dDowall, Pemberton Row, Gough Square.

FOR C. CHAPPLE, BOOKSELLER TO THE PRINCE REGENT,
66, PALL MALL.

1815.

Price One Shilling and Sixpence.

THE CASE

RECOVERY FROM THE EFFECTS OF ANESTHETICS

WITH

The methods of anaesthesia employed for dentistry, the
chloroform and ether; in which the author has
submitted a full and complete account of the
principles applied, as well as the
effects of various cases, and
the results of the same.

TO WHICH ARE ADDED

SEVERAL CORROBORATING FACTS, WITH A HISTORY OF THE

RELATIVE TO THE

CAUSE OF DEATH IN THE

BY JOHN MARSHALL

REGISTERED IN THE HALL OF RECORDS OF LONDON, IN THE YEAR 1847.
AND IN THE HALL OF RECORDS OF THE HONOURABLE HOUSE OF COMMONS.

NEW EDITION, WITH ADDITIONS.
BY THE AUTHOR.

LONDON:

Printed by W. Woodcock, Stationer, &c.,
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1847.

Price One Guinea, and Five Shillings.

FIVE CASES,

&c. &c. &c.

THE Public are already apprized of the dreadful catastrophe which suddenly befel Mr. Turner and his family, on the 21st of March, by the horrible attempt of the cook, Eliza Fenning, to poison them. It has been considered a duty incumbent upon me to publish my notes, on the progress of the symptoms in these interesting cases, with the mode of treatment that was pursued, and the chemical experiments. A faithful relation of facts has been strictly observed, which has frequently led to a repetition of the symptoms, as they occurred in each individual case; and as there were many variations, it would have been impossible to have enumerated them all correctly under one head or case.

Should the description attempted to be given of the symptoms, &c. be found worthy the perusal of medical men, I shall feel amply compensated, having endeavoured, as much as the nature of the cases would admit, to avoid touching upon the discordant opinions relative to the guilt of Eliza Fenning, wholly disregarding the illiberal opinions of

writers on that subject, as far as *concerns myself*; for under the sanction of a free constitution, and an impartial trial by jury, I have a right to assert my unfeigned and positive opinion of the guilt of Eliza Fenning.

Two reasons have contributed to the delay of these remarks. It was essential to wait the event of Mrs. Turner's *accouchement*, in order to ascertain what influence the poison might possibly have on the mother and the infant. Mercy, too, induced me to retard the publication, by dictating the propriety of withholding my sentiments until after the execution of the criminal.

The quantity of arsenic mixed in the dumplings must have been very considerable, as from the mere scrapings of the dish in which they were kneaded I derived more than half a tea spoonful, when completely divested of the dough, and dried. Another mode of witnessing the free proportion which entered into their composition was, by cutting a piece of the remaining substance into thin slices: thereby the white metallic particles were distinctly visible, very thickly distributed.

Mrs. Robert Turner at the time was advanced near seven months in her pregnancy, which critical period and situation rendered her case more alarming and interesting.

On Tuesday evening, March 21st, about half past eight, I received a very urgent message, brought by Mr. King, Mr. Turner's apprentice, to visit imme

diately Mr. Turner and his family, 68, Chancery-lane, in consequence of their being poisoned. Mr. K. observed, the family were in the most deplorable state imaginable, and he feared that some of the sufferers might be dead ere I could see them.

On entering the house I first saw Eliza Fenning, the cook, lying on the stairs, apparently in great agony, and complaining of a burning pain in the stomach, with violent reaching, head-ach, and great thirst; I directed her to drink some milk and water; then went up stairs to the rest of the family, who, I was informed by Mrs. Turner senior, were all four of them even worse than the cook. My attention was first directed to Mr. Robert Turner, who appeared to be nearly *in articulo mortis*; the face, which had been swollen, assumed the appearance of the true *facies hippocratica*; my apprehensions were considerable for his preservation. On examining the contents of the utensils in which he had vomited, I perceived a fluid of a yellowish and greenish colour, and in two of them stercoraceous matter; the pulse was gone, his voice faint and tremulous: he pointed to the abdomen in great agony. On examination I discovered a very remarkable irregularity of surface, occasioned by the spasmodic contractions of the muscles of the abdomen, and even of the viscera; this unevenness extended from the epigastric region to the *pubis*, and to the right and left *hypochondria*: I relieved the excruciating pain for a short time, by rubbing

the abdomen with a piece of hot flannel and laudanum. From this state of the abdominal surface, I had no doubt the arsenic had gone far beyond the limits of the stomach, into the alimentary canal. He complained of extreme faintness, and dreadful sickness. Mr. R. T. had been violently purged: on examining the evacuations downwards, I was much surprised at the singularity of their appearance; they were all of a bright homogeneous green colour, like paint, and strongly resembled the green colour I afterwards produced from a solution of the arsenic by one of Mr. Hume's tests, the ammoniaco-sulphate of copper, which I shall afterwards more fully describe. Each effort of vomiting and purging was preceded and followed by these painful gripings and spasmodic contractions of the abdominal muscles. Mr. R. T. complained of great heat in the stomach, which the patient compared to a furnace or red hot irons, which sensation commenced at the tongue, and was felt throughout the course of the *oesophagus* to the *cardia*, or upper orifice of the stomach, insatiable thirst, violent head-ach, the eyes impatient of light, but the pupils sensible, and the extremities cold: the patient attempted, in this dreadful state, to get out of bed, to walk to the night table; he was directly seized with vertigo, dimness of sight, and palpitation of the heart; he fell down, and went off into an epileptic fit; he was assisted on the bed, and in a few minutes recovered from the fit.

Mrs. Robert Turner had great pain and burning

heat in the stomach, head-ach, immoderate thirst, vomiting and purging with green motions, tension of the abdomen, the face swollen, cold chills alternating with flushings of heat; and light was painful to the eyes. Mrs. R. Turner's peculiar situation made me apprehensive of a miscarriage, in consequence of frequent bearing pains, and more or less constant in the loins; and independently of these distressing symptoms, her mind was additionally agitated by the alarming state of her husband, who was lying by her side. If Mrs. R. T. had miscarried under these dreadful circumstances, I think she must have inevitably lost her life.

Mr. Turner senior I next saw, with symptoms in many respects similar, though not quite so importunate as in the two foregoing cases: Mr. T. had the burning sensation in the stomach, vomiting, inordinate thirst, head-ach, the face swollen, tension of the abdomen; the purgative symptom had been more moderate; Mr. T. did not complain of light affecting the eyes; and the countenance was flushed particularly on the upper part of the cheeks.

At this time Mr. Ogilvy of Southampton-buildings, Chancery-lane, came, for whom I had sent, in consequence of his having been first called to the family, soon after dinner, and as four hours had elapsed prior to my seeing the patients, I felt it my duty to know what methods that gentleman had pursued, lest I should interfere with his plan of treatment, and do harm in the critical situation of the patients.

Mr. O. informed me he had washed their stomachs freely and plentifully with sugar and water, occasionally mixed with milk, and he had given to each of them a full dose of castor oil. Mr. O. and myself then saw Mr. Gadsden, (Mr. Turner's apprentice), who complained of a burning heat in the stomach, much nausea with vomiting, and severe gripings with purging, extreme faintness, palpitation of the heart, headach, and trembling of the right arm, and right lower extremity. Mr. O. and myself consulted on the best plan to pursue, to check the progress of these urgent and alarming symptoms. Finding Mr. O. had most judiciously and thoroughly emptied and washed their stomachs, and as we had every reason to suspect some portion of the arsenic had escaped into the alimentary canal, especially in the cases of Mr. and Mrs. Robert Turner, and Mr. Gadsden, we resolved to persist in the purgative plan, and gave to each patient another full dose of castor oil, on two table spoonsful of milk, and every four hours a solution of the *magnesiæ sulphas* with manna, in mint water, this dose to be alternated every two hours with the saline draught in the state of effervescence, letting the alkali predominate four grains to each dose, with the intention of having some effect of neutralizing any possible remains of the arsenic, and relieving the disposition to vomit; and we further determined on persisting in the purgative, until a more natural colour was effected in the motions. The patients were allowed to drink

frequently, and in small quantities, milk, soda water with or without milk, and mutton broth. Mr. T. and Mr. R. Turner, wished to have a draught of porter, but we strongly entreated them to abstain from beer, wine, and all fermented liquors, which they did for a fortnight afterwards, and also from animal food. The thirst of each patient was so urgent, they would readily have drank quarts, had they been permitted; and had we yielded to their request, the vomiting would have been at this time unnecessarily excited, and Mr. O. and myself were apprehensive it might tend to increase the inflammation on the villous coat of the stomach, and augment the symptoms of debility. The thirst was somewhat allayed by recommending them to wash the mouth often with cold water.

On the following morning, March 22d, I visited the patients, who had all passed a restless night, the vomiting in each had greatly abated, the pain in the stomach was still violent, which they all compared to a furnace, or hot irons; the motions were changing to a proper colour, but intermixed with streaks of green, and highly offensive, the skin hot and dry, the pulse quick, varying in each case from 100 to 130, great thirst, and violent headach, their tongues white, but moist; Mr. and Mrs. Robert Turner, and Mr. Gadsden, could not endure a strong light.

The supersaturated saline draught *in actu effervescentiae*, with the addition of manna, was ordered

to be continued, and the purgative mixture to be omitted.

Reflecting upon Mrs. R. Turner's situation, whose pulse was 130, I felt strongly disposed to bleed, but I was deterred from this measure, lest I should risk the increase of debility, and thereby endanger a miscarriage. She had constant sensations of fainting; and the bearing pains, with the pain in the loins, had somewhat abated.

Mr. Gadsden appeared this morning to be the most afflicted; he had had four epileptic fits in the course of the night, preceded by a violent palpitation of the heart, accompanied with a peculiar tremulous action of the right arm, and lower extremity, a considerable degree of symptomatic fever, insatiable thirst, a white but moist skin, the face flushed, the respiration hurried, pulse 126, irregular and contracted, frequent gripings in the bowels, and spasmodic twitchings in the muscles of the chest and abdomen.

Mr. Robert Turner, in the early part of the morning had another attack of epilepsy; the symptomatic fever ran high, the pulse 120; he complained of spasmodic twitchings about the chest and abdomen, palpitation of the heart, great languor, accompanied with a constant sensation of fainting, tongue white but not dry, occasional chills, followed by an increase of heat, headach, and vertigo. A dose of the purgative mixture was administered, and the same medicine as on the preceding day.

Mr. Turner senior appeared much better, the pulse 90, skin temperate, tongue moist and cleaner, the vomiting had subsided, but the stomach was in great pain, he complained of extreme lassitude, the face was flushed, and he had slept about four hours.

The faces of all the four patients were swollen, with a fixed redness, more or less, under the eyes and on the cheek-bones; they had vomited two or three times in the course of the night, by drinking too copious a draught of the diluents recommended over night, and each complained of the tongue and lips being sore and swollen.

In the evening the febrile symptoms had a little abated, the pain in the stomach was intense, occasionally remitting, and again returning with increased violence, with nausea and vomiting, much pain in the head, considerable thirst, and the bowels were open in each of the patients.

Mr. Turner senior was better in many respects, and less oppressed by languor.

The saline draught with manna was to be continued, and the addition of camphire mixture.

On the following morning, Thursday the 23d, Mr. Robert Turner had slept three hours during the night, the skin was moist and more temperate, the tongue less coated, but not dry, sore, and swollen, the burning heat in the stomach rather less violent, and he expressed a degree of hunger, the pulse 98,

spasmodic twitches in the arms and legs, with a cold sensation in the latter.

Mr. Gadsden had much fever, the respiration hurried, great thirst, violent and incessant palpitation of the heart, the fits had recurred twice in the night, he had had no sound sleep; if he went into a doze, Mr. G. awoke suddenly, and much agitated, the pulse 120, spasmodic twitches, with tremour in the right arm and lower extremity, violent headach, and the eyes painfully affected by light; constant vertigo, which was increased if he attempted to sit up in bed, or upon the slightest motion. A wine glass full of camphire mixture was ordered to be taken frequently; Mr. G. received so much relief from this, he asked for it often with eagerness. The saline effervescing draught with manna, and camphire mixture, was repeated every four hours.

Mrs. Robert Turner had slept three hours in the course of the night, pain in the loins constant, with occasional bearing down of the womb, the thirst rather less urgent, the pulse 110, headach, vertigo, great intolerance to light, the tongue white and moist, the skin hot, frequent palpitations of the heart, and a constant sensation of fainting, a numbness extending from the right side down to the foot, the burning sensation of the stomach was excited and increased by the motion of the child *in utero*; the face was flushed and swollen, the tongue and lips sore, which extended along the course of the *oesophagus*.

The same medicine as yesterday continued, and a wine glass full of camphire mixture frequently, if faint.

Mr. Turner was considerably better, the pain in the stomach occasionally troublesome, the appetite returning, the face less swollen, but flushed and red under the eyes and on the cheek bones, extending towards the ears.

On the following morning, Friday the 24th, the febrile symptoms had considerably subsided in each of the patients, and they had passed a more tranquil night. They complained of a variety of singular nervous affections, tingling and burning sensations in the hands and feet, in Mr. R. Turner beginning at the extremity of the fingers, and gradually creeping to the shoulders, sometimes one foot, and at others both affected with a burning feel, commencing at the toes, and gradually rising above the ankle joint, palpitation of the heart, great depression of the spirits, with a perpetual sensation of swooning, and frequent twitchings of the muscles of the chest and abdomen, and of the upper and lower extremities.

Mr. Gadsden had experienced in the night only one attack of the epileptic fit, and had slept three or four hours towards the morning, the pulse 100, the breathing less hurried and more natural. The vomiting in each patient had wholly subsided, but they all endured the burning feel in the stomach.

Mrs. Robert Turner complained of violent head-

ach, and to light she had still a great objection, as it, immediately on accession, increased the head-ach, at times the heart palpitated strongly, the thirst was considerable, the tongue less charged and moist, the child *in utero* moved with vigour, and whenever it occurred the pain in the stomach was increased, with nausea, the pulse 100.

Mr. Turner senior was nearly recovered.

The same medicine continued, with the camphire mixture.

In the evening they were all four evidently in a progressive state of convalescence, the febrile symptoms diminished, the pulse slower, less tremulous and contracted, more natural and open in the beat: the pulse in Mrs. R. Turner continued at or about 100 for a fortnight afterwards.

I now entertained confident hopes of their recovery, and pronounced them out of danger; and I began to be inspired with hopes of Mrs. R. Turner completing her full period of gestation, which prognostic, I am now happy to state, was realized, as Mrs. R. T. went her time, and a very fine girl was born, after a safe but lingering labour, and she recovered from her lying-in much in the usual manner, without experiencing, at that time, any further ill effects from the symptoms produced by the white arsenic.

On the next morning, Saturday the 25th, the symptomatic fever in each patient had wholly subsided, their tongues were cleaner, and the nervous

symptoms much the same as on the preceding day, the appetite returning; and Mr. R. T. complained of hunger more than the rest; I recommended him to eat well-boiled vegetables, puddings, eggs, and milk, but most carefully to abstain from animal food and fermented liquors.

Mr. Gadsden had a relapse of the fit shortly after I had left him over night, which had been preceded by palpitation of the heart, and the tremulous agitation of the right arm and lower extremity; the fit lasted near two hours. They all still complained of the burning heat in the stomach: this symptom was constant, and more severe in Mrs. R. Turner, who had it without intermission: this I attributed to her peculiar situation, the viscera pressing more constantly upon the tender state of the coats of the stomach; and Mrs. R. T. felt, for many days afterwards, an intolerance of light, accompanied with headach; she persevered in the recumbent position for a fortnight afterwards, which relieved the pain in the loins, and kept off, or lessened, the disposition to the bearing pains of the gravid uterus.

On the following day, Sunday the 26th, they were all convalescent, except Mr. Robert Turner, who had gone contrary to my directions, by eating at dinner on the preceding day, a free portion of animal food, and drinking a tumbler of porter, which caused a slight relapse of the fever, and he endured so much pain in the stomach, that he candidly promised not to touch animal food or porter again,

until I gave him permission. Mr. R. T. had passed a restless night, with much thirst, and was again attacked with the spasmodic twitchings in the chest and upper and lower extremities; he took a dose of the cathartic mixture, and by living on a low diet Mr. R. T. was soon relieved from this exacerbation of the symptoms.

Mr. Gadsden went off in an epileptic fit at eight o'clock the preceding night, and it returned daily and periodically about the same hour in the evening a fortnight afterwards; the fit generally lasted near two hours, and he required, from the violence of his struggles, the assistance of several persons to hold him whilst the epilepsy continued; on recovering he looked wild, forgot where he was, and talked incoherently; and as he gradually emerged from this state, complained of extreme languor, with great prostration of strength. Towards the latter end of the second week the fit became shorter, and less severe, and he sooner recovered when out of it; and at the expiration of a fortnight from the time he was poisoned, Mr. G. enjoyed an interval of seven or eight days without a relapse; I was in great hopes he was quite recovered—"the fits becoming every day shorter, and the recovery from each more rapid and complete," agreeably to the observation of Dr. Roget, in his very interesting case of recovery from the effects of arsenic, published in the *Medico-Chirurgical Transactions*, vol. ii. But they again returned, with the same or even greater

degrees of violence, and I am sorry to state, Mr. G. has been afflicted with the fits up to the present time; he is about seventeen years of age, appears to have outgrown his strength, possesses very delicate stamina, and I am somewhat apprehensive of the result, as the fits hitherto seem not in the least to yield to the remedies that have been employed. I attended Mr. G. about three weeks, but he was obliged to leave Mr. Turner's office, and go home to his parents, in consequence of the frequency of their return.

On the 30th Mr. R. Turner complained of a very singular affection in the upper and lower extremities; the arms were several times in the course of the day seized with a numbness and prickling sensation, accompanied with a sense of great weight, like what is commonly called, the part being asleep; and this symptom continued daily, more or less frequently, for six weeks; upon raising the arms in an upright position it immediately subsided: the same feel almost as constantly attacked the legs, but occasionally with, and sometimes without the corresponding affection of the arms; the legs were some minutes longer affected, by reason of his not being able (as Mr. R. T. observed) to place them in the same position as the arms.

With regard to the case of Eliza Fenning, it is requisite to make some remarks, or it may appear singular not to have mentioned the succession of the symptoms which related to her. Those of the first

night I have already described; the next morning she was much better, face flushed and swollen, and she complained of burning pain in the stomach, head-ach, and dizziness. This patient most obstinately resisted all remedy; and as the manner in which she did it has already been stated and signed by me and Mr. Ogilvy, in the Observer, in corroboration of what I have asserted, it may be as well here to introduce this document.

“ In consequence of the late tumultuous proceedings in Chancery-lane, against Mr. Turner and his family, Mr. Marshall and Mr. Ogilvy lament they had not an opportunity of stating, upon the trial of Eliza Fenning, what they consider an additional proof of her guilt.

“ On Tuesday night, the 21st of March, and Wednesday morning following, Eliza Fenning most obstinately refused all remedy. After administering the medicine they deemed immediately necessary for the relief of the suffering patients, they lastly went to the garret, to give the same to Eliza Fenning: on recommending the identical remedy Mr. Turner, Mr. and Mrs. R. Turner, and Mr. Gadsden, had most readily taken, Eliza F. said “ she would not take any thing; she had much rather die than live, as life was of no consequence to her.” Mr. M. and Mr. O. said they must insist upon doing their duty; and urged her to take the medicine; the face was swollen, and her stomach in great pain, &c. By perseverance and much persuasion they at last in-

duced her to comply with their request. Before she took it, she again repeated these words — “ she had rather not, she would sooner die than live, life was of no consequence.”

Particular directions were given by Mr. M. and Mr. O. for the repetition of the medicine through the night, to Mrs. Turner senior, who was present during this interview, and Mr. Abbot her son-in-law. Mrs. Turner senior most humanely undertook to pursue their directions, in consequence of her sitting up all night, and many subsequent, with the family.

The next morning Mr. M. and Mr. O. saw Eliza Fenning, and to their surprise she had not taken a single dose during their absence: on again reasoning, and kindly remonstrating at the neglect, she repeated the same assurance of “ preferring death to life, as the latter was of no consequence to her.”

On Thursday morning, March 23d, about twelve o'clock, she was committed to the Cold Bath Fields Prison, on the serious charge of having poisoned the family; and for this horrible attempt she afterwards most deservedly suffered, and expiated her crime by the just sentence of the law.

THESE cases serve to illustrate the possibility of recovery after a considerable portion of arsenic has been taken, and in Mrs. R. Turner's case, under the

most unfavourable of all circumstances, during gestation, and at the more critical period of near seven months; and I attribute their recovery to the speedy and spontaneous operation of the arsenic, both as a powerful emetic and purgative; and no doubt to this joint operation the patients owed their immediate chance of escape from the danger that awaited them; and by plentiful dilution the stomach was wholly relieved and cleared from the deleterious particles; the portion which escaped into the alimentary canal was carried from its surface by the powerful cathartic action of the poison. The injury which the arsenic had effected upon the coats of the stomach could not immediately cease, although the exciting cause had been effectually and promptly removed.

The recovery of the patients may be further ascribed, independently of the above operation, and of the practice adopted, to the peculiar tough composition in which the white arsenic was incorporated, as it was with considerable difficulty the remainder of the yeast dumplings could be dissolved in water, even after it had been grated, and almost pulverized. The effects of the solvent power of the gastric juice are too well known to need description, and no doubt it would have a very superior influence to various external or artificial means of solution; yet there are many other forms or substances in which the poison might have been mixed, that would have had a much more serious and fatal tendency, by giving it out with greater facility to the coats of the stomach, as

there was arsenic enough in the dumplings to have destroyed a dozen families.

In Mr. Gadsden's case there was a remarkable variation as to the time which elapsed before he was seriously attacked with the symptoms I have already described, which I think necessary to notice. Mr. G. had previously dined at two o'clock, on a beef steak pye; about an hour and half after he had finished his dinner, Mr. G. ate about the size of a walnut only, of the remains of the yeast dumplings, in the kitchen; he would have taken more, but for the observation made to him whilst in the act of eating the dumpling, by the cook, Eliza Fenning — "don't eat them, they are cold and heavy, and will do you no good;" and this caution being repeated in a very eager manner, he immediately desisted. (Mr. G. stated these words to me and to Mr. Turner's family repeatedly). About an hour after swallowing this small portion of the yeast dumpling, he became sick, and vomited twice; Mr. G. then felt quite well, and was able to go to Belmont-place, Vauxhall, for Mrs. Turner senior, and not until he arrived there was he in the least aware of being poisoned. Mr. G. became seriously ill, with an excruciating pain and a burning heat in the stomach, he felt so much alarmed he thought he should have died: as soon as Mr. G. got into the coach, to return with Mrs. T. to Chancery-lane, he began to vomit, and continued to do so almost without intermission the whole of the way. Probably there are two reasons to assign

for his not suffering sooner: first, Mr. G. having so recently dined, prior to his partaking of the yeast dumpling, the coats of the stomach might be longer defended from contact. Secondly, the small quantity he had eaten in proportion to the rest of the family. Hence it may appear that a small dose of arsenic would be longer in producing its effect, than a much larger one, as the latter would have a more immediate action, both as an emetic and cathartic. And Mr. G.'s case serves to illustrate, that equal mischief may ensue from either quantity. Mr. R. Turner had eaten a dumpling and half, and the arsenic appeared to be very accurately mixed in the dough, which I discovered by cutting into thin slices the remains of the dumplings, which I had an opportunity of examining.

The very remarkably green colour of the fæces I cannot find to have been noticed by any author, and probably this may be the first time of its being mentioned; and I think it may be considered in future as one of the symptoms characteristic of the presence and effects of white arsenic, when accompanied with other corroborating and concomitant symptoms. In the course of seventeen years practice I never witnessed any thing like it before; the motions of new-born infants, and during the irritation of dentition, are well known to be frequently green, but very different from those I am now describing: the great irritation excited by arsenic, when it determines on the bowels, must have an effect

upon the biliary secretion, and be somewhat analogous. But this curious matter of fact I leave for the consideration of more able physiologists.

Mr. and Mrs. R. Turner compared the sensation of the stomach to a ball of red hot iron, with rays of heat emerging in every direction, as from a common centre, and producing a sense of dragging, as it were from its great weight. Shortly after being taken ill, they became so extremely flushed and heated, that they opened the window for air, the current of which, instead of affording relief, increased the evil so insufferably, as if by fanning the flame, that they were obliged to shut it down. They lost the entire skin of their tongues a short time after they had taken the poison. In Mrs. R. Turner the whole surface of the cuticle of the body peeled off by degrees, in bran-like scales.

Mr. R. Turner, in attempting to extend either arm to reach any thing, found it suddenly contract, causing him to miss the object he meant to embrace. The arms of Mrs. R. Turner and Mr. Gadsden were similarly affected for many weeks.

For some time Mr. Turner had frequent attacks of burning heat in one or both feet.

SINCE giving the above description of the state of the constitution and symptoms of Mr. Gadsden, he

has returned from Cheltenham, greatly improved in his general health, and was fully able to resume his situation in Mr. Turner's office; the epileptic fits had left him about three weeks, and I again hoped they would not return: but I regret the necessity of stating, that he has experienced a relapse, with increased violence and frequency, as the fits now return every twelve, or at least three or four times in forty-eight hours. For some minutes his sensations and distress of countenance, now, generally indicate their approach, and, since the short time the epilepsy has returned, the patient's health and strength have suffered materially.

It is expedient to subjoin some observations on the different methods that were employed to detect the arsenic that entered into the composition of the yeast dumplings, which was collected in so palpable a form, that it became wholly unnecessary to analyze the fluid that was rejected from the stomachs of these patients. Mr. Hume of Long Acre was so obliging as to assist me in this inquiry; and to that gentleman I am chiefly indebted for the analysis of the white oxide of arsenic, which I obtained from the scrapings of the dish in which the yeast dumplings were kneaded.

During the night of the 21st of March I employed

myself, when I could gain time, in investigating and searching after the cause of the serious symptoms I was so much engaged in. On examining the remains of the yeast dumplings, I first cut a small portion into very thin slices; I perceived white particles pretty thickly and uniformly distributed throughout the surface, which I conjectured to be white arsenic; and, having no convenient apparatus, I proved it to be so by the following crude method;—One of the slices of the yeast dumpling was put on a polished halfpenny, and held over the flame of a candle on the blade of a knife, and thus reduced to a cinder, it gave out most unequivocally the garlic smell, which Mr. Ogilvy and Mr. Abbot, who were present, also observed. On allowing the coin to cool, the upper surface was of a silvery whiteness, occasioned by the fumes of the arsenic. The knives were then examined which had been used at dinner; they were so very deeply tarnished, that I inquired if any vinegar had been used in the sauce, and was answered in the negative: however, by the above crude experiment I had discovered a much more satisfactory and positive proof. Here it may be necessary to caution people from relying on a knife being *blackened* as a *complete* proof of the presence of arsenic; for yeast itself, gooseberries, and various kinds of fruits, may tinge iron black; any thing of an astringent nature will do it effectually.

On the following morning I derived from an

earthen pan, in which the yeast dumplings had been kneaded, full half a tea spoonful of the white arsenic; the scrapings of this utensil I carefully diluted, and washed with a tea-kettle of warm water, stirring it briskly as the water was poured in; it was allowed to settle about half a minute, and the water was cautiously decanted, until the vessel was nearly drained; the residuum was again submitted to the same operation, with a view to divest the white powder, which was distinctly to be seen through the water at the bottom of the pan, more completely from any admixture of the dough or flour. I then collected and dried the powder.

Some polished copper plates I next procured, about three inches long by two in width, and put a few grains of this powder between two, and bound them together with wire, then placed them between the bars of a grate. On withdrawing the plates soon after they were properly heated, the alliaceous smell was highly perceptible; when red hot, they were again taken out of the fire; when cold, each plate displayed the white fumes of the arsenic, and had a silvery whiteness.

But with a view to be still more satisfied, and to place the nature of this powder beyond the reach of doubt—feeling it, as I did, a duty of the highest importance to be fully prepared on the then approaching trial of Eliza Fenning, and having read of Mr. Hume's very accurate and delicate tests for the

detection of this mineral substance, I waited upon that gentleman with the arsenic, who most obligingly and readily submitted it to his very superior analytical tests and experiments, which Mr. H. found out near twenty years ago. He has published several treatises on the subject; and his discoveries have been admitted and acknowledged by the first chemists of the age, and by them preferred to all other tests. Indeed the accuracy, the elegance, and the certainty, with which they serve to detect the minutest portion of the white metallic oxide, when combined with any other substance, infinitely surpass all other modes hitherto known or discovered, and deserve to be every way recorded; they are highly beneficial to the medical world, by enabling practitioners to clear up any doubtful point on this important subject, and more especially to those gentlemen who may be called upon to give evidence in courts of judicature on such criminal cases.

I think it proper to enumerate some of the experiments, for Mr. Hume did not find it necessary to employ many others, such as the decomposition of nitrate of pot-ash by the arsenic to form Macquer's arsenical salt, a solution of which produces a red or brick coloured precipitate with nitrate of silver.

A weak solution of the powder was made, by boiling it in a sand bath, in the proportion of one grain to about four ounces of distilled water; about

half an ounce of this solution was put into a phial, and a glass rod was applied to the surface, previously dipped in the ammoniaco nitrate of silver; it instantly produced a yellow cloud, descending in an undulating form to the bottom of the phial, and gradually converted the transparent solution to an opaque or turbid yellow colour; a copious precipitate was thrown down, which in the course of a few hours turned to a dark brown. This beautiful and highly satisfactory experiment infallibly proved the powder to be white arsenic.

The ammoniaco sulphate of copper was next applied, in the same manner, to another portion of the above solution of arsenic; and this was instantly changed into a flocculent and copious precipitate, which retained its bright green colour, forming the pigment so well known as Scheele's green.

The nicety of this test was further elucidated by diluting the above solution in this way: a dessert spoonful of the above described solution, viz. one grain of arsenic to four ounces of distilled water was added to three ounces of distilled water, i. e. about a thirty-second part of a grain, and when thus copiously diluted, on applying the glass rod, moistened in the ammoniaco nitrate of silver, the same brilliant yellow colour was obtained, and, after standing a little while, threw down a yellow precipitate, which in twelve hours turned to a dirty brown, proving it to be arsenite of silver.

A grain or two of the white arsenic was put into a platina spoon, and heated over a spirit lamp. Here the effect was very conspicuous, and the alliaceous odour from the fumes sensibly affected the olfactories.

The mode in which Mr. Humel recommends the ammoniaco nitrate of silver, and the ammoniaco sulphate of copper to be prepared, may be rendered further beneficial to society by introducing it here; and I am greatly obliged to that gentleman for having indulged me with the proportions.

Ammoniaco nitrate of silver.

DISSOLVE a few grains, say ten, of the nitrate of silver, commonly called lunar caustic, in about nine or ten times its weight of distilled water; to this add, by a drop at a time, some liquid ammonia, till a precipitate is formed. Continue cautiously to add the ammonia, now and then shaking the bottle, till the precipitate shall be taken up, and the solution again become transparent, or nearly so, as the ammonia need not be in great excess, if in any; for solution of ammonia being lighter than water, the superfluous portion would be likely to remain on the

surface of the fluid to which this test-liquor is to be applied—a circumstance not noticed by other analysts.

“ Here,” Mr. H. observes, “ we have one neat and simple liquid, which, if kept in a phial with a glass stopper, will not easily spoil, and therefore may be always at hand. Its application is also equally simple; for nothing more is required than to dip a piece of glass into this liquor, and apply it to the surface of the solution containing arsenic. Should the material suspected to contain the poison be of a dry nature, such as a mixture of sugar, meal, bread, meat, or any other kind of food, let some boiling water be poured upon the suspected substance, and filtrate the solution through paper; then, having allowed this to become cold, apply the test-liquor with a piece of glass in the way I have just described.” And Mr. H. further remarks—“ The strip of glass can be readily procured at any glazier’s shop; or, if not at hand, a few drops of the test from the phial may be put in, as there is not so much uncertainty from a slight excess of alkali, nor even of the test-liquor itself, as to require very great caution.”

Ammoniaco sulphate of copper.

LET a little liquid ammonia be dropped into a saturated solution of sulphate of copper, or common blue vitriol, until a precipitate be formed; then continue to add the ammonia by degrees, when presently the precipitate will be perfectly dissolved, and the solution will become of a rich elegant deep blue colour, and perfectly transparent.

The flour which remained in the tub from whence the dough had been made was submitted to a careful examination. I adopted a similar process to the investigation of the scrapings of the dish in which the dough had been kneaded, and could not detect the presence of the smallest particle of arsenic.

The yeast was carefully examined, and subjected to Mr. Hume's tests, which clearly proved it to be entirely void of the white metallic oxide.

I very much regret the want of an opportunity of proving to the court at the Old Bailey, on the trial of the late Eliza Fenning, at least two of these experiments, viz. by the ammoniaco nitrate of silver, and the ammoniaco sulphate of copper; for these most eminently removed every doubt. I was fully prepared for this purpose; but, from the great pressure of the business of the court, I was constrained to forego the demonstration which these trials would have supplied; the learned judge, the bar-

risters, and the jury, feeling perfectly convinced and satisfied by the evidence, that the family of Mr. Turner had suffered from the effects of arsenic only. Mr. Turner's solicitor, Mr. Sherman, having also seen the colours in my possession, produced by these proofs, and having communicated this matter to the learned counsel, Mr. Gurney, prevented the display of these admirable and indisputable tests.

IN the foregoing remarks it has been my study to adhere with accuracy to the progress of the symptoms, &c. as they came under my observation, having purposely omitted the relation of many circumstances that further tend to the crimination of the late Eliza Fenning. It may not be deemed superfluous here to enumerate some of them, for the satisfaction of the public, as by these elucidations (independently of the evidence produced on the trial) I flatter myself that I shall be enabled in some measure to eradicate the erroneous opinions that have prevailed on this topic.

On the Thursday morning after the horrible attempt, Mr. Turner went to the room of the culprit, and questioned her closely with regard to the dumplings; she admitted having made them, and that no one assisted. On being charged with

the deed, she immediately denied it: Mr. T. told her he was going to Hatton Garden Office, to have the matter investigated. I accompanied Mr. Turner, at his request, to the office, and while we were gone Eliza Fenning attempted to dress herself, she became giddy, and fell down; when sufficiently recovered, she put on her clothes, and shewed a strong disposition to escape out of the house, to prevent which, the outer and inner doors were secured by Mr. King.

On the eventful day, the house-maid being absent by leave of her mistress, Eliza Fenning cleared the table of the remains of the dumplings. Mrs. R. Turner observed to her, that "the dumplings were by no means what she expected"—the cook made no reply, but blushed, and appeared in great agitation, of the cause of which her mistress was then unconscious, as at that time the poison had not begun to operate. A few minutes afterwards the family in the dining-room were all three attacked, and from the distress and confusion that soon followed, this striking feature of guilt was for some time wholly obliterated from the memory of Mrs. R. T. The prisoner had also repeatedly inquired of her mistress whether Mr. Turner senior was to dine in Chancery-lane on that day.

The cook had dined with the other servants at two o'clock, and not till after she had heard of the distressing scene that was passing up stairs, and had

cautioned Mr. Gadsden not to touch the dumplings, did she eat of them. This deliberate action carries the strongest proof of her conviction; as, knowing she was the cause of the mischief, she was determined to destroy herself to evade justice: and her refusal of all remedy, at the time she must have known the absolute necessity of counteracting the threatening effects of the poison, coupled with the ejaculation, that "she would rather die than live, &c." fully substantiates this opinion. In the course of practice I have met with various instances, as well as the rest of my brethren, of individuals who had rather part with life than take advice or medicine: but however obstinate in general these might be, in ordinary sickness, were they to be menaced with the dangerous effects of poison, by accident, they would all of them most eagerly submit to any directions offered, unless a pre-determination of self-murder was adopted.

Eliza Fenning was the only female in the house, besides her mistress, and although she was sensible of Mrs. R. T.'s situation, never went to her assistance, as she naturally would have done had she been innocent. For as the Recorder emphatically stated in his admirable charge to the jury, "that if a dog were taken ill in a family, where is the christian but would take pity, and be ready to lend assistance?"

Thissleton, the officer, examined the box of Eliza

Fenning, and found therein an infamous book, with a register on one of the pages, that explained various methods of procuring abortion; and she having been frequently heard in the kitchen to say "she would have her spite out with her mistress," further illustrates the idea of premeditated revenge, and shews the depravity of her morals.

To prove the little regard this unfortunate woman had to truth, while the jury were actually deliberating on their verdict, the prisoner complained to the judge, that she wished Mr. King to have been examined, because he could have proved that she never opened the drawer in the office, where the arsenic was. After the trial I went home with the family, saw Mr. King, and repeated to him the words of Eliza Fenning; with astonishment Mr. K. replied, he could have sworn to no such thing, as she had access to the drawer whenever there was occasion to light the fire.

The numerous and unheard-of instances of prevarication constantly exhibited by the criminal, from the time of her apprehension to within twenty-four hours of her death, are worthy of notice.

Eliza Fenning alternately declared the poison to have been mixed in the milk, the sauce, the flour, and lastly the yeast; but her affirmations were perfectly unsupported, and subverted by the evidence: and in allusion to these incongruities Sir John

Sylvester, in his charge, made this appropriate remark—"that truth is always consistent."

Her vindictive spirit, and want of veracity, were additionally displayed by a desire to criminate several members of Mr. Turner's family: a fortnight after imprisonment she daily endeavoured to implicate her fellow servant, Sarah Peer; then removed the charge, and with equal audacity aspersed Mr. King.

A friend of the prisoner waited upon Mr. Turner on the Saturday evening previous to her execution, and stated that he was her only spiritual confessor, and he came with a request from Eliza Fenning, that the family would visit her on the Monday morning. However unpleasant this might be in consideration of the former ill treatment Mr. T. had experienced from the prisoner in Newgate, yet conceiving she might have something of importance to divulge, he thought it right to comply with her request, and particularly expressed to her friend, that if she could produce any favourable circumstance relating to her innocence, Mr. T. would be the first person to interfere in her behalf; and that neither exertion nor expense should be spared to save her.

Accordingly the family went to Newgate at the time appointed, and as they entered her apartment the prisoner began to insult them in the most flagrant style, and arrogantly told her mistress that

she had sent for her because she could give a better account how the arsenic got into the dumplings, than she herself could. Mrs. R. Turner was surprised and shocked at the impudence of her conduct, and said she had hoped to have witnessed a very different deportment in her truly awful situation. Mr. King then asked her what she could mean by endeavouring to injure his character, in accusing him of such a dreadful crime? She answered by addressing Mrs. R. Turner and Mr. King—"It laid between you, ma'am, and you, Sir."

Eliza Fenning never till this time, i. e. two days prior to her execution, had accused her mistress of this serious charge, although she had been in prison about four months.

The day before she was hanged she sent for Mr. King, who obeyed the summons, at the advice of the family. The culprit observed to Mr. K.—"she had sent for him to tell him that he had done it." He then offered, in the presence of the Rev. H. S. Cotton, Mr. Newman, and several other persons, that if it would be any satisfaction to her, he was ready to take an oath that he knew nothing of the transaction. The prisoner replied, that if he did so it would be of no satisfaction to her whatever. In order to intimidate Mr. K. who she was well aware is of a nervous habit, before he took the oath, she cried out—"that if he did, God would

instantly strike him dead before her eyes." Mr. K. knelt down, and was directed by the ordinary to take time, and repeat his words audibly and slowly, which request Mr. K. fully attended to. As he was in the act of raising the book to kiss it, the prisoner exclaimed, "that's a lie." The very firm demeanour of Mr. King, contrasted with the behaviour of the criminal, excited the astonishment and disgust of all the spectators.

The conversation repeatedly held between the father and daughter, in Newgate, on the subject of confession, as affirmed by the turnkey, I am well assured could be further strengthened by the most respectable testimony of two gentlemen holding appointments in Newgate, and who are ready, if officially required, to confirm the affidavit made before the Lord Mayor.

THESE facts serve to illustrate how greatly Mr. Turner and family have been exposed to unmerited rancour, by the artful and revengeful conduct of the wretch who has inflicted on them so much suffering and anxiety.

The variety of instances that have lately occurred of murder committed by arsenic, prove that the thanks of the public are due to Mr. Turner for prosecuting and bringing to condign punishment,

one of the perpetrators of this dreadfully alarming, and daily increasing evil.

For upwards of nine years I have had the pleasure of being acquainted with the Turners, and well know them to be a most amiable, respectable, and united family.

THE END.

one of the perpetrators of this dreadfully alarming
and daily increasing evil.
For upwards of nine years I have had the pleasure
of being acquainted with the Tarners, and well
knew them to be a most amiable, respectable, and
united family.

THE END.



