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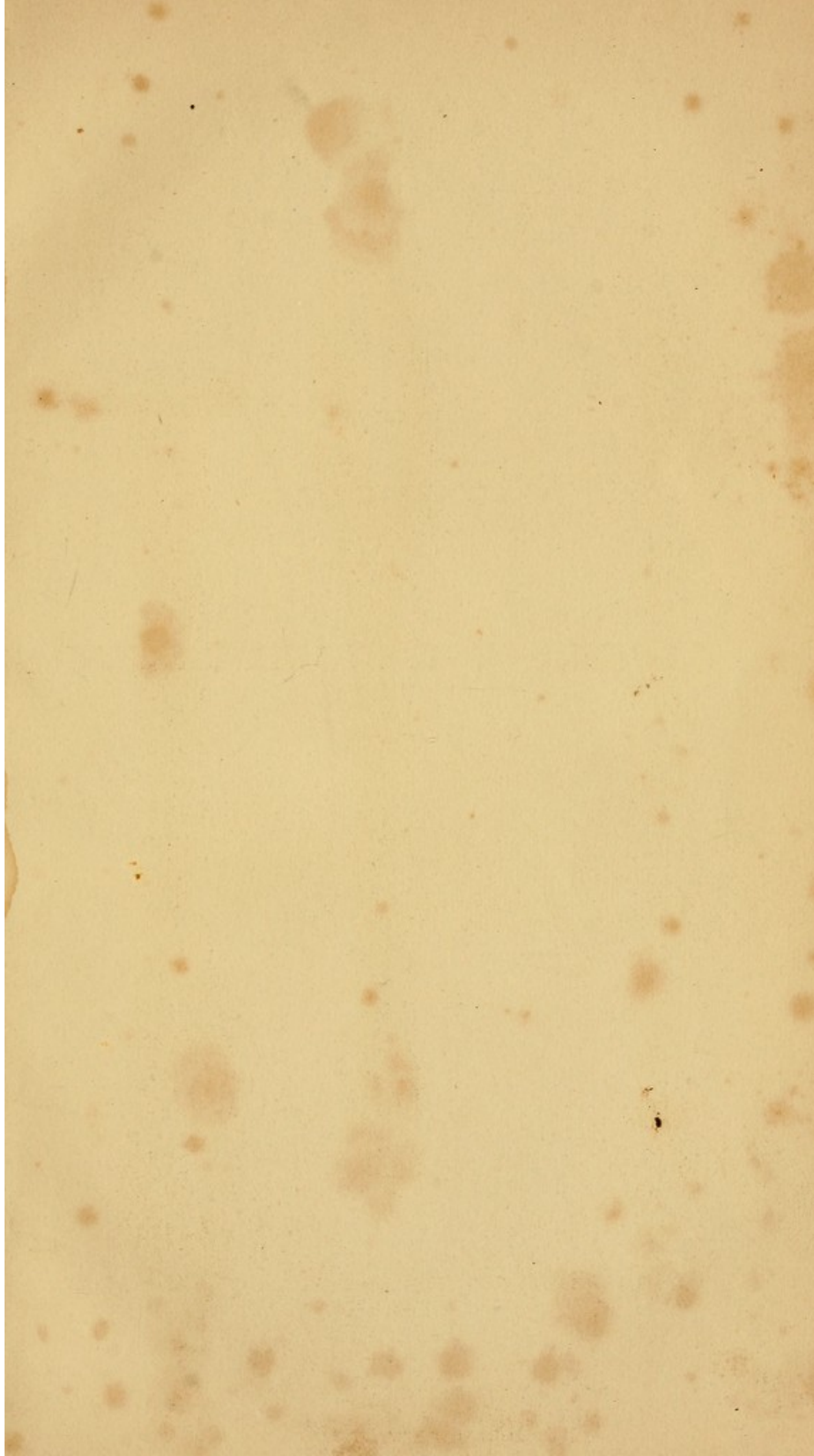
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A TREATISE
ON
PAINFUL AND NERVOUS DISEASES.

A TREATISE

ON

PAINTING AND VERNISSE

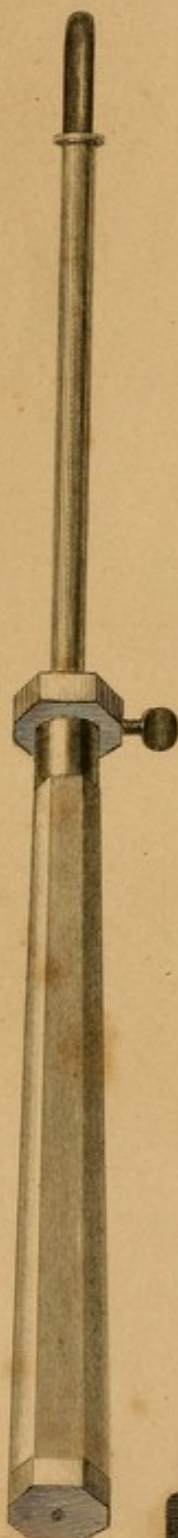




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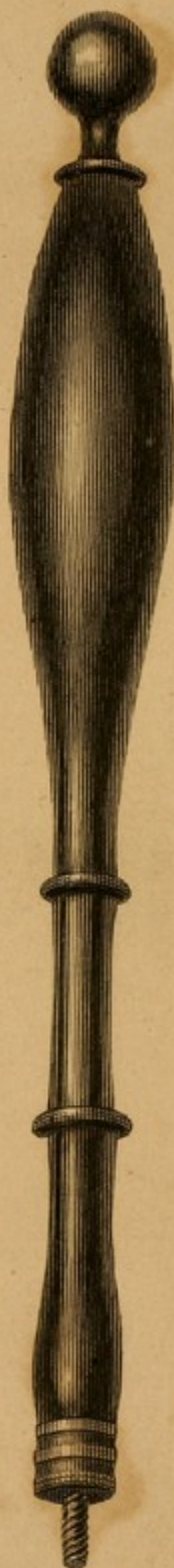
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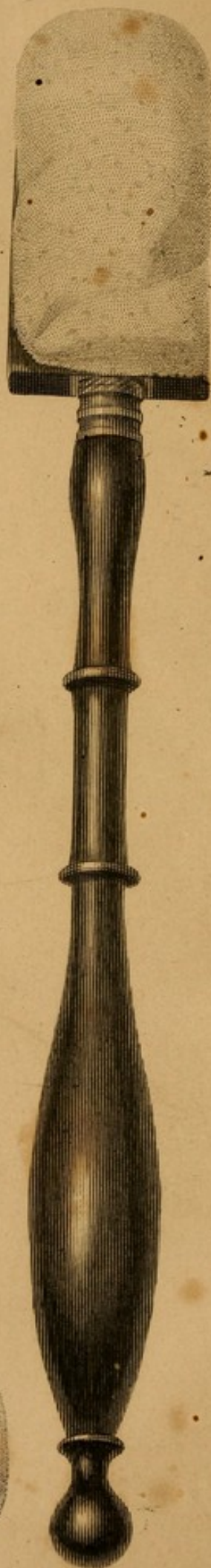
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A TREATISE
ON
PAINFUL AND NERVOUS DISEASES,
AND ON
A NEW MODE OF TREATMENT
FOR
DISEASES OF THE EYE AND EAR.

BY
A. TURNBULL, M.D.

THIRD EDITION.

LONDON:
JOHN CHURCHILL, PRINCES STREET, SOHO.

1837.

P R E F A C E

TO THE THIRD EDITION.

THE Author has changed the title of the present edition from "An Investigation into the Effects of the External Application of Veratria" into "A Treatise on Painful and Nervous Diseases," &c., as he conceives the former title to be too limited to admit of the introduction of other bodies which he has since discovered for the removal of Nervous Diseases. The diseases in which the Author has recommended the use of these Alkaloids might at first appear of too diversified a character, but when it is considered that the most distinguished medical authorities as well as the Author view the diseases he has treated of as mainly depending upon one and the same cause, namely, a disordered state of the nerves, sound induction would lead to the conclusion that they must all be curable by the same means, and that the communication of a healthy action to the nervous

system (local or general) would be followed by the removal of the disease from the parts affected. The Author has found his principle amply illustrated in his practice. This is to him the most satisfactory evidence, that in generalizing on a subject fraught with most important results, he has not exceeded the bounds prescribed by fact and experiment. With these remarks he submits the following Treatise, with the desire that medical science may be promoted, the labours of the Profession simplified, and the community at large proportionately benefited. The Author takes this opportunity of thanking those individuals who have, since the publication of the second edition, favoured him with communications detailing the remedial powers of Veratria, but regrets that the limits of the work preclude their insertion.

48, Russell Square, January, 1837.

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A TREATISE
ON
PAINFUL AND NERVOUS DISEASES,
AND ON
DISEASES OF THE EYE, &c.

INTRODUCTION.

THE remedial powers of Veratria in Tic-douloureux, Neuralgia, Affections of the Heart, and Amaurosis were unknown previously to January, 1834, when I published the first edition of this work, in which is detailed my experience as to the external use of Veratria in those diseases. In June of the same year a second edition appeared, which contains the first account of the internal administration of Veratria and its salts in the same diseases. The present edition not only contains my still more extended experience of the employment of Veratria in various diseases, but also presents an account of my discovery of Aconitine, and of certain new remedies for affections of the Eyes, Ears, and other parts. In this edition the preparation and chemical history of Veratria and Aconitine have been omitted, as the Royal College of Physicians of London has admitted them into the Pharmacopœia lately issued.

In order to answer the many inquiries that have been made as to the way in which I first became acquainted with the powers of *Veratria* in the cure of *Tic-douloureux* and other nervous diseases, I give the following short account. My attention was directed to the discovery of new remedies for these diseases from their having become much more general, and from the frequent failure in curing them by the usual means, consisting of *colchicum*, quinine, carbonate of iron, moxa, excision of the nerve, and amputation.

In this pursuit my general habit is to make experiments upon healthy persons. I rubbed upon my arm for a few minutes an ointment, consisting of two grains of *Veratria* and a drachm of lard, which caused great heat and tingling. At these sensations I was much astonished, and expected to find either redness of the skin, vesication, or eruption follow, but to my great surprise nothing of the kind took place. The ointment was washed off with soap and warm water, which increased the heat and tingling: about an hour afterwards these were followed by an agreeable cool sensation. Finding no injury to my health from it, I repeated the application upon the arm, when a sensation similar to that produced by electricity or galvanism ensued; and on passing my finger rapidly over the part, an electric feeling followed its track. These new sensations immediately attracted my attention, and their long continuance and powerful impression

upon the nerves of sensation, without redness, blistering, or destructive action being produced upon the skin, led to the idea that I might with safety try the Veratria externally in nervous diseases. To avoid circumlocution, I shall use the term *electro-stimulation* to express this combination of heat and tingling or electric-like feelings, and any substance producing these sensations I shall call *electro-stimulant*.

In all my experiments with this alkaloid upon healthy persons, by rubbing it upon the region of the heart, abdomen, or elsewhere, I have not, however strong the electro-stimulation may have been, perceived the least impression upon the circulation, proving that its action is chiefly confined to the nerves of sensation ; and at no time have I found any narcotic influence arise from it.

In the former editions of this work I stated that when Veratria was applied externally, it sometimes produced a slight tingling in the lips and other parts, leading me to infer that its action was general and not local. Further experience has convinced me that its action is local, and that the tingling arose from the patient's having inadvertently carried some of the application to those parts. In the treatment of the new cases of Tic-douloureux and Neuralgia recorded in this edition, Veratria alone has been used, in order that a just estimate may be formed of its powers as a remedial agent, when not combined with other means.

CHAPTER I.

EXTERNAL APPLICATION OF VERATRIA IN TIC-DOULOUREUX.

VERATRIA may be used in the form of ointment, embrocation, or plaster. The application of Veratria in tic-douloureux to the skin deprived of its cuticle I have discontinued, from the extreme pain and irritation which, as I stated in the previous editions of this work, accompany the practice ; and although its effects upon the disease are undoubtedly great, it is quite uncalled for, as the other modes of applying Veratria answer the end.

The manner of using the application is a point of great moment ; for however good in quality or strength it may be, little benefit will be derived unless the directions are carefully attended to. The hand must be kept moist with the application, and must be moved with considerable speed but not lightly. The time during which the Veratria should be applied cannot be specified, as it must be continued until as much electro-stimulation has been produced as shall be sufficient to remove the paroxysm ; but should the patient have any doubts as to its removal, the friction should be discontinued for a minute or two, and resumed if all pain is not gone. Where the skin is thick, as in the hands or feet, the application must be continued for a longer

time. Veratria, however long applied, does not produce any redness, vesication, or eruption, unless the lard with which it is mixed contains common salt ; and there is not the least fear of using it too long, as beyond a certain point the electro-stimulation becomes quite insupportable, but before such a strong impression is produced the paroxysm is gone. The Veratria ought to be used twice a day as long as the disease continues, and then for a week after cessation of the paroxysms, and afterwards gradually discontinued. If the intervals of the paroxysms are not lengthened after the application has been continued four or five days, it should be increased in strength, or changed for another alkaloid, as a repetition of the same application daily, without lengthening the intervals, soon fails to cure the disease ; or there should be a cessation of the means for a week, and a resumption of them in greater strength ; or there might be adopted a union of Veratria with Delphinia or Aconitine, as a combination of two of these alkaloids does not so soon cease to produce its peculiar impressions ; or a union of the internal with the external administration should take place.

INTERNAL ADMINISTRATION OF VERATRIA IN TIC-DOULOUREUX.

When the first edition of this work was published, I had not given Veratria internally. Perceiving that from its external application the best results to the

constitution ensued, and that individuals speedily recovered their general health, but that the expense of the medicine excluded the great bulk of the population from its use, I made experiments upon guinea-pigs and rabbits to ascertain if it might not with safety be administered internally with the same beneficial results. In the first experiment I gave a guinea-pig half a grain of Veratria, which had no apparent effect except producing an uneasy sensation about the mouth and throat, but there was no evacuation from the bowels. To another I gave $\frac{3}{4}$, and to a third 1 grain. In both nausea and heaving of the chest were excited, from the effects of which they did not entirely recover for two days. The same results occurred in a rabbit. I then began by giving individuals $\frac{1}{24}$ of a grain in pill, repeated every three hours, and found that it did not act sensibly upon the stomach or bowels. Veratria ought not to be given internally in a liquid form, as a solution of it in alcohol or water produces in the mouth and pharynx an acrid insupportable sensation, which continues for several hours. The dose was gradually increased to $\frac{1}{12}$ of a grain every three hours, when heat at the stomach, extending over the surface of the body along with occasional tingling in the fingers and toes, was produced, followed by a cool sensation as if air were blown upon the body. I was much encouraged to proceed on finding that given in large doses it did not purge*,

* This opinion is opposed to that of M. Majendie, who states in all the editions of his "Formulary," that "Veratria is princi-

but produced the same electro-stimulating influence as when externally applied. Formerly the dose was $\frac{1}{8}$ of a grain every three hours, but now I find that from Veratria having become an object of commerce, and being manufactured in greater quantity and purity, $\frac{1}{12}$ of a grain every three hours is sufficient at the commencement, and I rarely find it necessary to give more than $1\frac{1}{2}$ grain in twenty-four hours. In an over-dose it produces nausea. The alkaloid acts less as a diaphoretic than its salts. In the removal of disease the external administration of Veratria acts locally upon the nerves, whilst the internal acts upon the general nervous system; and in the latter case its influence being extended generally, and not concentrated as when applied locally, its peculiar impressions upon the part are necessarily limited, and a longer time is required to induce a healthy action upon the local disease; proving that when Veratria is administered externally or internally, the same law holds good, namely, that its electro-stimulation must be fully induced before its sanative influence can be expected.

pally serviceable in cases where it is desirable to effect a prompt evacuation of the bowels." I, on the contrary, use it to stop diarrhoea, with decided advantage, in the doses he prescribes for producing purging, and one pill ought to be given after each stool, until the relaxed state be removed; and when Veratria has been continued internally for a few days, the bowels become so sluggish, that I find it necessary to combine an aperient with it.

VERATRIA IN NEURALGIA.

THE directions and remedies for the cure of Neuralgia, in whatever part of the body it may be situated, are the same as those for Tic-douloureux. In confirmation of the opinion that every part of the body is liable to Neuralgia, I quote Professor Chapman on Tic-douloureux.

“ No one organ of the great cavities has any immunity from Neuralgia. The brain does not wholly escape ; the lungs, with their appendages, are frequently attacked ; and the heart is still more exposed to its aggressions. Nearly, or perhaps quite as much, are the abdominal contents, the stomach, the upper and lower bowels down to the rectum, the liver, the spleen, the kidneys, the urinary bladder ; and, above all, the uterus and its dependencies have been noticed as affected in this way.”

There is no class of affections from which the relief experienced from Veratria is more grateful to the feelings of the patient, than in painful sensations occurring along the course of the rectum before and after each stool, and continuing for some time with great severity. Such affections are by no means uncommon, and appear to be confined to the nerves of the part ; and for their removal all that is in general necessary is to rub the ointment along the sacrum during a few successive attacks, and the

pain will shortly disappear. Veratria is equally serviceable in the species of Neuralgia to which females are subject about the catamenial periods, the pain commencing in the loins and extending down the spine to the thighs.

As the different preparations of Veratria and Sabadilla will frequently be referred to, to prevent repetition, formulæ are subjoined, and when any preparation, is mentioned, it is, unless otherwise ordered, to be used in the strength here given.

VERATRIA OINTMENT.

℞.—Veratriæ ʒss.
 Ol. Olivæ ʒi.
 Adipis ppt. ʒi.
 M. Ft. Ung.

VERATRIA EMBROCATION.

℞.—Veratriæ ʒi.
 Sp. Rect. ʒij.
 Ft. Embr.

VERATRIA PILLS.

℞.—Veratriæ gr. i.
 Ext. Hyoscyam.
 Pulv. Glycirrhz. āā gr. xij.
 Ft. Pil. xij. quarum sum^r. una tertiis horis.

Any of the salts of Veratria may be employed in the three preceding prescriptions in the same proportions.

TINCTURE OF SABADILLA.

One pound of powdered Sabadilla Seeds to be macerated in two pounds of Rectified Spirit for seven days, and filtered.

ALCOHOLIC EXTRACT OF SABADILLA.

Made by evaporating the Tincture of Sabadilla to the consistence of an extract.

SABADILLA PILLS.

R_x.—Ext. Sabad. Alcoh. . . . gr. ij.
Pulv. Glycirrhiz. . . . gr. xij.
Ft. Pil. xij. quarum sum^r. una tertiis horis.

VERATRIA IN TIC-DOULOUREUX.

CASE 1.

A Lady, fifty-five years of age, has been affected for the last thirty-six years with tic-douloureux in the cheek, and in the forehead above the eyebrow, on the left side. From the commencement of the disease she has had a paroxysm generally once a week, and at no time does she remember the interval to have been greater than fourteen days. Her sufferings during the continuance of the attack have been extreme, and have compelled her to confine herself to bed until its termination, and it has never lasted a shorter time than two days. In the intervals, however, she has been perfectly free from pain, and her general health has been tolerably good.

She had a paralytic affection of the levator muscle of the upper eyelid, and of the left side of the face. Morphia, strychnine, and other means had been used to a great extent, but without any other effect than to induce debility. She was directed to rub over the forehead and side of the face an ointment made with twenty grains of Veratria to an ounce of lard, till every uneasy sensation was gone. In about fifteen minutes this effect was produced; but the paroxysm made its appearance within two hours, and by a renewal of the friction for a few minutes, it was extinguished, instead of continuing two days as usual.

To this there succeeded an interval of perfect ease for ten days, when the attack returned, but not violently. On this occasion the same plan was pursued as in the preceding paroxysm. From this time the patient had only one or two very slight accessions, which were cut short by the use of the ointment for a few minutes, and the disease entirely left her.

Not the least remarkable circumstance in this case was the change which took place upon the paralysis; for immediately after the first friction had been made use of, it was observed to have diminished considerably; and by the time the patient was cured of the tic-douloureux, it had disappeared, and has not since returned.

CASE 2.

Mr. C., aged forty, has laboured for sixteen years under tic-douloureux over the right side of the face and forehead, but particularly along the lower jaw as far as the chin, and when the paroxysms were severe the pain also extended to the same side of the tongue. During the whole course of the disease, this patient has rarely been free from pain ; and when an interval of ease did take place, his sufferings were renewed by the slightest causes, and more especially by mastication, which seldom failed to bring on an accession.

In the previous management of this case, under the supposition that the pain might depend upon decayed teeth, the patient had had several extracted without relief. He was bled, generally and locally ; blisters and embrocations were repeatedly employed ; but still no abatement in the severity of the symptoms took place. He had taken large doses of carbonate of iron, arsenic, mercury, opium, morphia, sulphate of quinine, nux vomica, &c. without effect ; and when he came under treatment, he had been taking prussic acid in a quantity sufficient to affect the nervous system, with as little success as from the measures which had before been resorted to.

As it appeared from the history of the case that the patient had been in the habit of indulging his

appetite for food and drink to a considerable degree, and as his digestive organs appeared somewhat deranged, he was directed to take small doses of blue pill with Epsom salts, and the Veratria ointment was prescribed, of the same strength as in the preceding instance. There being no distinct interval observable between the paroxysms, he was directed to rub it over the seat of the pain twice a day, and to renew the friction at any other time should the attack come on.

In the course of four or five days he returned very much improved. The disease had been broken into distinct accessions, and these were attended with comparatively little pain: he was therefore directed to discontinue the regular application of the ointment, and to employ it only when threatened with a renewal of the paroxysm. Soon after this, he gave up the use of the internal medicines, and gradually improved under the influence of the Veratria alone; the intervals became longer, and the fits less and less painful, until at the end of four weeks from the time he came under treatment, he returned home perfectly free from pain.

CASE 3.

A Lady, forty-eight years of age, has been affected with tic-douloureux, situated in the left side of

the face, for a period of twenty-two years. She has made use of a variety of medicines, particularly carbonate of iron, which she had taken for three months in very large doses, but without experiencing any benefit.

The paroxysms are irregular in their duration, but never shorter than twelve hours, and they return generally at the end of three days, sometimes at the end of a week ; and during the intervals she is not altogether free from pain.

A short time before this patient came under treatment she had an attack of paralysis ; from which she had recovered, with the exception of a slight palsied appearance of the countenance. There were no very marked symptoms of derangement in the digestive organs, but it was thought advisable to put her under a course of medicine for a few days, similar to that made use of in the last case ; and the Veratria ointment, of the same strength, was ordered to be rubbed on in the usual manner when the next paroxysm occurred. After the friction had been continued for a quarter of an hour the pain ceased.

During five weeks from this date, the disease appeared occasionally in the form of slight twinges of pain, but these were removed by rubbing on a little of the ointment, and at length disappeared.

CASE 4.

A Lady, about thirty-five years of age, has suffered severely, and almost without intermission for the last eighteen months, from tic-douloureux in the cheek and forehead. She had been put under a variety of medical treatment, without producing any effect upon the disease ; and the only remedy which has in any degree alleviated her sufferings is galvanism, which also failed in producing permanent benefit.

This patient appeared to enjoy very good health ; so that, without any other treatment, it was determined to try Veratria. She was ordered to rub over the affected part an ointment made with twenty grains of Veratria to an ounce of lard ; and in ten minutes from the commencement of the friction the pain disappeared, and has never since returned.

CASE 5.

A Lady, twenty-five years of age, has been for the last seven years affected with tic-douloureux, confined to the situation of the right supraorbital foramen. The paroxysms have varied in duration from sixteen hours to two days, and the intervals from ten days to three weeks, but when a paroxysm

has come on in a shorter time, it has generally in two or three days been followed by another.

Many means had already been had recourse to, without procuring any alleviation of the sufferings of the patient, excepting that small doses of acetate of morphia administered during the paroxysm sometimes caused an immediate cessation; but it was attended with this inconvenience, that if it did not produce the desired effect, all the symptoms were immediately aggravated to a great degree.

The digestive functions in this patient appeared to be considerably impaired, her circulation languid, and her extremities cold, especially during the attack. On these accounts she was put under a course of laxatives, combined with blue pill, which removed these symptoms, without producing any change on the disease itself. As it appeared that carbonate of iron was almost the only medicine which she had not previously made use of, it was prescribed in large doses, without producing any effect; it was then given up, and about six weeks afterwards the Veratria was applied.

At the commencement of one of the accessions she rubbed over the eyebrow and forehead of the affected side an ointment made with twenty grains of Veratria to an ounce of lard; and after the friction had been continued for about twenty minutes, the paroxysm was cut short. During the interval she was directed to apply an ointment made with Morphia and lard, in the same proportions as the

other, twice a day, in order to prevent a return of the attack, but without producing the intended effect, for it again made its appearance in ten days.

With the view of making a decided impression upon the disease, an ounce of ointment containing forty grains of Veratria was ordered to be employed, whenever an accession of the pain took place. In a few minutes after its first application, there followed a great increase of the symptoms, which continued for about two hours and then subsided, leaving no trace of the affection behind, neither has any renewal of it taken place.

In the second edition of my work on Veratria, it is stated that this patient had had a relapse. The space for applying the ointment was so small, that sufficient could not be employed to produce a decided impression upon the disease, and at that time I was but little acquainted with the beneficial effects of the internal administration of Veratria, or otherwise I have little doubt she would not have had a relapse.

CASE 6.

A Lady, aged twenty-six, who has been subject to occasional attacks of hysteria since her fifteenth year, has also since that period suffered from tic-douloureux, situated in the left eyebrow, and extending up the forehead, in the course of the ramifica-

tions of the frontal nerve. The paroxysms in general take place once a month ; but if the patient expose herself to sudden alternations of temperature, she is almost certain of experiencing a violent attack on the following day, and in either instance it continues with unmitigated severity for about twelve hours, and not unfrequently terminates in sickness and vomiting, along with a considerable degree of intolerance of light.

As no plan of treatment which she had hitherto made trial of had had any effect upon the disease, she was, without any other means being employed, directed to rub at the beginning of one of the accessions an ointment of the usual strength over the seat of the pain, and to continue the friction until relief was obtained. In less than half an hour from using the ointment the paroxysm left her.

On account of considerable visceral derangement, the patient was treated by gentle laxatives for a short time, and was ordered to repeat the friction with the Veratria whenever the pain returned ; but it has, I believe, never since been found necessary.

VERATRIA IN NEURALGIA.

CASE 7.

A Gentleman, aged thirty-five, of a spare habit of body, subject to nervous feelings, and accustomed

to sedentary occupations, has for the last seven years been seized with excruciating fits of pain, confined to the right half of the head, and returning at the end of about every third week. A short time before each attack he suffers much from restlessness and irritability, his pulse becomes augmented in frequency, and he complains much of impairment of memory; and after it has ceased, he does not return to his usual state of health for two or three days.

For this affection he was directed, during the paroxysm, to make use of frictions with Veratria Ointment over the seat of the pain; he first applied it to the forehead, and one rubbing was all that was requisite to remove the pain in that situation, but it still continued with unabated violence in the remainder of the affected region: to this part he was also ordered to apply the ointment; and the pain there, in like manner, yielded to one application: no return of the symptoms has taken place, and he is now in good health.

Along with the hemicrania, there existed in this patient a considerable degree of palpitation of the heart; but a few frictions with the same ointment over the left side for five minutes every night, with an occasional aperient pill, sufficed to remove this symptom.

CASE 8.

A young Lady, about twenty-four years of age, has been affected with most violent pains in the loins and thighs, previous to and during the menstrual period, for about eight years. The pain in general continued, without intermission, for three days, and then subsided.

Many attempts have been made in this case to effect a cure; the patient has taken opium, preparations of Morphia, Dover's powder, and other sedative remedies, but without experiencing any permanent benefit, for at each monthly period the pain has manifested itself with the same severity as before. From the effects which the Veratria had been already observed to have upon similar diseases, an ointment made with twenty grains of the alkaloid to an ounce of lard was directed to be made use of over the loins, with the effect of immediately removing the pain, and it has not again returned.

Further experience has taught me that, where rubbing may be objectionable, this and other diseases, in which Veratria, Delphinia, and Aconitine are useful, may be removed by applying these bodies in the form of plaster. This is to be made of adhesive plaster, spread upon leather or calico, and its size varied according to circumstances. The quantity of the alkaloids must vary according to the severity of the complaint: of the Veratria and

Delphinia from ten to forty, and of Aconitine from five to fifteen grains may be used ; they are to be sprinkled upon the plaster while warm. The plaster may be renewed as often as may be thought proper. A still more efficient one may be made by spreading the Alcoholic extract of *Sabadilla* or *Aconite* upon leather, having a margin of adhesive plaster. In the painful condition at the catamenial periods similar to the one above related, these plasters should be applied over the loins a few days previous to the expected attack.

CASE 9.

Mrs. A., a middle-aged lady, has suffered severely for about five years from a painful affection in the situation of the *os coccygis*, which is much increased by sitting, or riding on horseback. For the cure of this disease she has been under a variety of treatment, both internal and external, and has spent much time at the principal watering-places, but without benefit.

She was directed to rub the *Veratria* Ointment over the affected part, and the first application afforded relief. At the end of twelve hours the pain came on, but was a second time as easily removed ; and as there seemed to be a tendency to a recurrence of the pain, the ointment was ordered

to be repeated night and morning, until the disease had ceased. In the course of ten days the patient was quite well, and has since continued so.

NEW CASES.

VERATRIA IN TIC-DOULOUREUX.

CASE 10.

A Gentleman, aged sixty-six, had for thirty-six years suffered from tic-douloureux in the whole of the right side of the face and head, extending to the nape of the neck.

For the last ten years the intervals of freedom from pain were short. He had consulted various eminent medical men of this country, France, Italy and Germany; had five operations performed for the removal of portions of nerve; and had taken every medicine that was supposed to be of the least benefit in cases of this kind. In April, 1834, he was sent to me from a considerable distance by his medical attendant, who had in his case used with considerable benefit Veratria in the proportion of twenty grains to an ounce of lard. This patient had read my book on Veratria, and said that the united sufferings there related of all the patients affected with tic were inferior to his. The Vera-

tria Ointment was ordered to be rubbed upon the face and head three or four times a day, not only until tingling was produced, but until all pain of the disease was removed. After using it three days he was free from pain, and went to the theatre, where he remained to the end of the performance without pain, a circumstance which had not occurred during the whole of the complaint, as any change of temperature produced a severe paroxysm. He continued in town seven days longer, having slight twinges of pain, when he returned home with directions to continue the ointment for some time. The following Christmas I heard from him, when he was quite well, and I have since had no account of a relapse.

CASE 11.

A married Lady, aged twenty-seven, had for twelve months suffered from violent pains in her face, extending from the temple to the chin. The pain generally commenced about seven o'clock in the evening, and often continued until the same hour the following morning, entirely preventing sleep. She was much reduced in strength and almost worn to a skeleton. The usual remedies failed in giving relief. In July, 1834, I ordered the Veratria Ointment to be applied for ten or fifteen minutes whenever she had pain.

Each time the ointment was applied the pain was diminished, and ceased at the expiration of one month. She has once or twice since, upon taking cold, felt a slight pain, which has been instantly removed by the first application of the ointment. I heard from her on the 23rd December, 1836, when she was quite well.

CASE 12.

A Gentleman, aged sixty, was attacked ten years ago with tic-douloureux in the left side of the face. It commenced in the infra-orbital nerve, and thence extended to the forehead, upper lip, lower jaw, gum, and tongue. He was never free from pain for a whole day. Eating invariably brought on a paroxysm. It was with great difficulty he could shave, wash his mouth, or talk. Changes of temperature were attended with severe attacks. He had taken all the usual remedies without benefit, and was recommended to go to a milder climate. He visited the East Indies, where he remained two years without the slightest mitigation of his pain. He consulted me in October, 1836, when I ordered a Veratria Pill to be taken four times a day. After he had taken them a week, the pain began to diminish, and in another week he was enabled to walk out and face the wind with impunity, and occasionally to take a meal without experiencing pain. In another

week he had lost all pain except slight twinges in the upper lip, which reminded him that the disease was not entirely subdued. At the end of a month he was quite well.

CASE 13.

A Lady, aged forty, was affected with tic-doulooureux in the right side of the face. It began seven years ago in the lower jaw, and five years afterwards in the upper, and branched off to the top of the head, right side of the tongue, and gums ; her vision was so dim that she could not read the largest print. For the last four years she could not masticate, but was compelled to live upon liquids ; the severity of the pain led her frequently to imagine that she had no sleep for a fortnight together. When she consulted me on the 6th November, 1836, she was unable to speak from pain, and her case was related to me by her husband. The Veratria Pill was ordered. After taking the pills two days, she complained much of tingling and heat in the stomach, extending over the face and extremities ; there was no remission of the pain. She was directed to take a tea-spoonful of powdered liquorice whenever she had heat or tingling in the stomach. Four days afterwards there was no remission of the pain, but the liquorice powder had removed the uneasiness of the stomach.

She complained of being slightly costive, when I advised her to take sufficient rhubarb to produce an evacuation daily. Four days after this, and ten days from the commencement of the treatment, all the affected parts, except the lower jaw, were free from pain. She could now relate her own case, and sleep began to be refreshing. She was directed to take two pills at each dose, provided they did not produce nausea; and after continuing them three weeks, all pain was gone, she could eat and sleep, and vision was perfect.

VERATRIA IN NEURALGIA.

CASE 14.

A Gentleman, aged thirty-eight, became four years ago affected with pain, which commenced in the loins, passed downwards along the spine to the coccyx, and thence to the urethra and both hips. The pain in the coccyx was so severe that he could not bear the slightest pressure upon it, and when he attempted to sit in the usual posture, it felt as if a knife had been plunged into the part; he was therefore compelled for the last four years to sit upon the middle of one thigh. The pain in the urethra simulated stricture so much in causing great obstruction to the passage of the urine, that a catheter was daily passed for many months.

Whenever he had an evacuation from the bowels the pain was of the most agonizing kind, and the recumbent posture alone afforded him any relief. He could walk a short distance only, and that with much suffering, but could not ride at all.

The medical opinions as to the nature of the case were, that it was Neuralgia, Stricture, Sciatica, or Lumbago, and the means used consisted of baths, suppositories, bougies, opiates, iron, colchicum, quinine, and other similar remedies.

In February, 1834, he was ordered to rub Veratria Ointment from a quarter to half an hour twice a day over the back, hips, and perinæum. The following morning he was much relieved, and returned into the country to arrange for his stay in town. He was absent five days, during which he had used the ointment freely, with the effect of giving him further relief, so that he could walk with ease; but there still remained a dull pain. In addition to the ointment a Veratria Pill was directed to be taken every three hours.

The pills produced in the face, eyes, hands, and extremities a great degree of tingling and perspiration, which were much increased by approaching the fire. After he had taken them a week, he was quite well. As he was very fond of riding on horseback, I prevailed upon him to make an attempt. His fears of inducing pain by sitting upon the saddle were so excessive, that for a long time he rode standing in the stirrups, but at length sat

down, and to his great surprise he found it caused no pain. He returned home, and entered into the sports of the field as usual, and I have since frequently heard from him, when he continued quite well.

CASE 15.

A German Baron, aged ninety, had suffered seven years from hemicrania. His son, who consulted me, stated that his father's sufferings were frequent and severe, that he had used all the means known in Germany for the removal of similar affections without deriving any benefit, and that he had latterly desisted from medical treatment. I ordered the affected part to be rubbed twice a day, or oftener if necessary, with Veratria Ointment, of which a supply was taken to Germany. After the first application, I received a letter stating that some had got into the eyes, from which he suffered much, and requesting to know if any other plan, attended with less risk to the eyes, could not be recommended. A few days afterwards a second letter was received, with the pleasing intelligence that the relief afforded by the first application had induced the father to continue the ointment, and that in a few days he was free from all pain. I saw the son lately when on a visit to this country, who informed me his father continued quite well.

CASE 16.

A Lady, aged forty-three, had for twelve months had Neuralgia in the sacrum, coccyx, and right hip. The pain was so severe in the sacrum and hip that she was compelled to lie almost constantly on the left side. An hour or two both previous to and after an evacuation, there was in the coccyx pain, which she stated to be as severe as labour pain.

She was much emaciated from the severity of the pain and want of sleep: all means had failed to give relief. The Veratria Ointment was ordered to be rubbed upon the affected parts an hour three times a day. There being no change on the following day, 10 grains of Veratria were added to the ointment. On the second day she was a little better. On the third she was very much relieved, and able to sit up in bed. An additional rubbing of an hour and a half was directed for the night. On the fifth day she had less pain, and passed a motion without any uneasiness. Two days afterwards she could bear to sit up in her bed-room. From this time she made great progress, and at the end of another week she walked down stairs into the drawing-room. The ointment was ordered to be used twice a day, or oftener if there was pain. It was continued three weeks more, when she returned home into the country with her health restored and all feeling of pain

gone, and continued quite well when I last heard from her in January, 1837.

CASE 17.

A married Lady without family, aged twenty-six, began nine months after her marriage, and five years previous to consulting me, to have severe attacks of pain in the loins, uterus, and left leg. About two days previous to each catamenial period, the loins and lower part of the body became affected with pains similar to those of labour, which continued during the whole of that period; and during this time she could not walk without excessive pain. Except at the catamenial period she rarely had pain when sitting or lying, but at no time could she walk above a few hundred yards without having pain in the loins and leg, and by continuing the exercise she became faint; she could however ride in her carriage without uneasiness. The most eminent practitioners concurred in pronouncing this to be a case of Neuralgia, and the following remedies, belladonna, iron, quinine, arsenic, mercury, and phosphoric acid, had been taken previous to consulting me in July 1834, when I ordered the Veratria Ointment to be rubbed for half an hour twice a day over the loins, lower part of the body, and hip.

After a fortnight's continuance of the treatment

she had no pain at the catamenial period, the leg was quite well, she could walk with perfect freedom, and continued in the full enjoyment of health in January 1837.

CASE 18.

A Gentleman, aged seventy, who had been many years a Judge in India, had five years ago a tumour removed from the head near the left ear. When the wound was healed, pain began in the cicatrix, and extended all over the head to both eyes, but more particularly to the left. The pain was of an intermitting character, but the intervals were rarely longer than two or three days. The pain in the eyes was of a stabbing plunging kind, so intense as to make him shed tears and roll about in the bed. The duration of the attacks varied from two to twelve hours. Many remedies had been tried, but in vain; and an eminent surgeon recommended the eyes to be removed by operation, as the only means likely to afford relief. He consulted me in July 1834, when I ordered a Veratria Pill to be taken four times a day.

On the first day of taking the pills he felt a tingling in the extremities; and the following night he awoke, thinking the windows were open and that a current of cold air blew upon him, and was not satisfied until the nurse had twice ascertained that the

windows were not open. On the following morning he had not his anticipated attack ; but the next day it came on, but neither so long nor so severe as usual. Seven days after this the paroxysms were much less severe and frequent. The treatment was continued a fortnight longer, when he was quite free from pain, and to prevent its return he was ordered to take two pills a day for another fortnight, when he returned into the country perfectly well. This case was one of such great interest that it was witnessed by seven eminent medical men.

CASE 19.

A young Lady, aged twenty-five, had been affected four years with pain, which extended from the middle of the upper part of the head to the eyebrows. There was a hardish irregular tumour, about the size of a nut, near the point where the pain began. She was never free from pain for more than a week. Her sufferings were so intense that her health was very much impaired, her countenance pallid, and her spirits sunk, and her friends became anxious about her life. She had been strongly recommended to have the tumour removed, as the pain was stated to depend upon the tumour pressing on some nerve, but she would not consent. In July, 1834, the Veratria Ointment was ordered to be rubbed over the affected parts ten minutes twice a day, or as

often as there was pain. The first application gave her much relief; and by continuing it three weeks she lost all pain, and soon afterwards recovered her health and spirits; and in January, 1837, she continued quite well.

CASE 20.

A Lady of high rank, aged forty-five, has for three years had pain in the middle of the back, extending up the spine and neck across the head, and terminating at the eyebrows. The paroxysms were frequent, and disabled her from sitting up without having opodeldoc and belladonna rubbed upon the affected parts for hours. The most eminent medical practitioners had been consulted. I ordered the Veratria Embrocation to be rubbed on the seat of the pain for three quarters of an hour twice a day. In ten days she left town well, except that at the catamenial periods she has pain in the forehead, which she removes by using the same embrocation.

CASE 21.

A Nobleman of high rank, aged thirty-five, was cut in the back part of his head by falling upon a stone. Shortly after the wound was healed, pain began in

the cicatrix, and extended over the whole of the scalp as far as the eyebrows. It occurred in paroxysms, which generally commenced soon after breakfast and continued for hours. It was so intense as to produce great nervous irritability, and inability to attend to mental occupations. He was seldom free from the paroxysms for more than a fortnight, and they often recurred for many days in succession. In January, 1836, the Veratria Embrocation was ordered to be rubbed over the affected part twice a day, or as often as there was pain, and to be continued until it was removed. The embrocation was applied two days, when there was a cessation of the pain for four. It returned, when a use of the same means for three days gave a freedom from pain for ten. He was now advised to apply the embrocation regularly for a fortnight, when he was cured, and has remained so ever since.

CASE 22.

A Lady of high rank, aged forty-two, felt four years and a half ago a weakness in the loins and an inability to walk as well as usual. This state gradually increased for six months, when she over-exerted herself by walking, and from that time, a period of four years, she could not be in the erect position without having pain on each side of the lumbar vertebræ,

palpitation of the heart, and fainting ; and was therefore compelled to lie constantly in bed or upon a couch. She was free from pain except when she was moved or made any exertion. The muscles of the legs were reduced in size, and she was much emaciated. Great variety of opinion amongst the most eminent medical men was entertained as to the nature of her complaint ; but most agreed in considering it as spinal disease, and every variety of treatment had been adopted, but without benefit. In May, 1836, I ordered the Veratria Ointment to be rubbed on each side of the lumbar vertebræ a quarter of an hour twice a day, a Sabadilla Pill to be taken three times a day, and rhubarb and magnesia if costive. After this plan of treatment had been pursued ten days, she could bear to be raised into the erect position for five minutes ; on the following day, ten minutes ; and next day, half an hour. Three days afterwards she sat up at her breakfast ; and two days after this she dressed herself, and supported by two persons attempted to walk. A week after this she walked across the room by herself. At the expiration of five weeks from the commencement of the treatment she could sit up the whole day without pain, palpitation, or fainting. She went into the country, and after she had been there six weeks I heard from her, when she could not only walk but also ride on horseback ; at the same time, however, she felt considerable weakness in the limbs. I heard again in September, when she

could walk a considerable distance, had regained her flesh and former healthy appearance, and was restored to perfect health, in which state she continued when I saw her in December last.

VERATRIA IN AFFECTIONS OF THE HEART.

The diseases of the heart in which Veratria exerts a decidedly beneficial influence are Angina Pectoris and Nervous Palpitation, and the distressing symptoms of Hypertrophy of the heart are greatly alleviated by it. The best medical authorities consider Angina Pectoris a species of Neuralgia. Dr. Macintosh in his Practice of Physic states, that "the symptoms of Angina Pectoris occasionally accompany a variety of organic lesions, and take place from what, to all appearance, may be considered a neuralgic affection." Professor Chapman says, that "the heart or great blood-vessels violently palpitate, or are seized with true neuralgic pain, the lungs suffer as in spasmodic asthma, or the attack being more comprehensive, we have Angina Pectoris."

In Angina Pectoris the Veratria Ointment or Embrocation must be rubbed over the region of the heart and along the affected arm for a quarter of an hour twice a day. Independently of this,

whenever there is a paroxysm, the applications must be continued until the pain and difficulty of breathing are removed, when the pulse will in general return to its natural state. In nervous palpitation, the application need not in general be continued for more than five or ten minutes once or twice a day, according to the severity of the affection. In hypertrophy, the whole of the front of the chest must be well rubbed with the application ten minutes twice a day, and in some recent cases of this disease I have used with decided advantage a combination of Veratria and Hydriodate of Potass. This should be rubbed over the region of the heart for a quarter of an hour twice a day. In these diseases of the heart I have found the internal administration of Veratria as beneficial as the external.

OINTMENT OF VERATRIA AND HYDRIODATE OF POTASS.

Rx.—Veratriæ	ʒi.
Pot. Hydriod.	ʒss.
Adipis ppt.	ʒi.

Add a few drops of water to the Hydriodate of Potass and rub it to a fine powder: then add the Veratria and lard, and mix well.

CASE 1.

A Lady, fifty-five years of age, was attacked seven years ago with an inflammatory affection of

the lungs, for which she was profusely bled, and otherwise actively treated. The violent symptoms were by these means removed ; but there still remained an affection of the chest sufficient to confine her almost constantly to her room for nine months afterwards. Since that time she has been under the necessity of remaining in an apartment, kept at an equable temperature, during the winter ; and with the prospect of being obliged to continue the same regimen for the remainder of her life.

Throughout the seven years she has had cough, attended with scanty mucous expectoration ; a difficulty of breathing so great as to prevent her sleeping at night, or even remaining in the recumbent posture for any length of time without bringing on distressing fits of coughing ; respiration much hurried, and the lips of a purplish hue ; pulse so small, rapid, and irregular as to render it difficult to ascertain the number of its beats. Over the region of the heart, and over a great part of the anterior surface of the thorax, there was a very perceptible undulatory motion, altogether different from ordinary pulsation ; and the ear, applied to the chest, distinguished the heart's action to be extended, indistinct, and undefined in character. Along the whole length of the left arm, from the shoulder to the points of the fingers, she complained of pain and a feeling of numbness, which rendered the extremity almost useless : these symptoms had lasted about four years. There was no very marked

derangement in the digestive organs. The bowels were regular, the appetite good ; but there existed a slight degree of flatulence, not however so great as to occasion much inconvenience, and there was nothing very particular in the appearance of the tongue.

The patient had previously been under almost every variety of treatment, but without receiving any benefit. Upon the supposition that there might be an accumulation in the bowels sufficient to aggravate the symptoms, she was directed to use aperient medicines for a few days, but without producing any alleviation. She was then put under the influence of small and repeated doses of the tartrate of antimony, and frictions with croton oil were applied over the chest and down the left arm, until a free eruption was brought out. Under this plan the patient experienced decided relief ; the cough and difficulty of breathing were much diminished, but the pain in the arm remained unabated.

An ointment composed of fifteen grains of Veratria and an ounce of lard was directed to be rubbed twice a day over the chest and the affected arm, five minutes each time. The first application relieved the symptoms considerably. The cough and breathlessness to a certain extent subsided, and the pulse and action of the heart were greatly improved : the most decidedly beneficial effects however were produced upon the extremity ; the pain and numbness had not altogether disappeared, but

were so much alleviated, as to induce the patient to state that, comparatively speaking, she had recovered the entire use of her arm. From this time the ointment was directed to be used every evening for about ten days, and then occasionally, as it might be found necessary.

In about a fortnight from the first application of the Veratria, the patient was able to leave her room and walk up and down stairs ; and the general improvement of her health was such, that she ventured into the open air ; but in consequence of incautious exposure, the symptoms returned two or three times, though by no means with the same severity as before ; and when such an occurrence took place, one or two rubbings with the ointment afforded complete relief. She is now in comparative health ; her general appearance is good, the pain and numbness of the arm have disappeared, the circulation is much more regular than it has been for a great length of time, the cough and difficulty of respiration are almost gone, and she can now remain in the recumbent position, and enjoy a good night's rest ; and the last time I saw her, she had walked about four miles without any inconvenience.

CASE 2.

Mr. B., aged thirty-six, of sedentary habits and by profession a banker's clerk, was seized about ten years ago, without any apparent cause, with palpitation on the left side of the thorax, followed by pain and a sensation of tightness and anxiety over the region of the heart ; his pulse became irregular ; his breathing has not been to any great degree disturbed, and he has been able to take exercise. During the course of his illness he has had no cough, but has had occasional sighing.

The digestive functions have been considerably impaired, appetite bad, bowels disordered, and constant tendency to flatulence. The nervous system has also been for some time under much derangement, marked by tremors in the hands, irritability of temper, disturbance of the mental powers : for some time past he has experienced a disinclination for exertion, and has gone through his business more as a matter of duty than of pleasure. His sleep has been disturbed and unrefreshing ; and he has laboured under great depression of spirits, from the belief that his complaint, from the number of remedies he had tried without advantage, was incurable.

He was directed to take opening medicine ; and an ointment of Veratria, of the same strength as

that applied in the preceding case, was ordered to be rubbed night and morning over the region of the heart. As the patient lived at a distance he did not present himself again until the end of a week, when he returned to announce that he was quite well. The palpitation and nervous symptoms had entirely vanished, and he was then in the enjoyment of the best health and spirits. I have seen him once since that time, and he has not had the slightest return of his complaint.

CASE 3.

Mrs. L., a lady thirty-six years of age, and of a spare habit of body, has been suffering for five years from palpitation of the heart, attended by considerable difficulty of breathing. She dates the commencement of her disease from a severe inflammatory affection of the chest, occasioned by cold caught during her confinement. To relieve the symptoms, bleeding and other antiphlogistic measures were had recourse to; but the palpitation continued to such a degree, as to render her incapable of taking exercise without materially aggravating her symptoms. She has had many exacerbations, arising from slight causes, and yet so severe as to render venesection necessary to alleviate the violent throbbing in the left side of the

thorax. Her eyes are suffused, her memory impaired, and she has a considerable degree of nervous irritability. Her breathing is difficult, accompanied by slight cough and a sense of partial suffocation, with pain across the region of the heart and down the left arm, and these feelings are materially increased by walking or any other exertion. Her pulse is irregular and quick; bowels costive; feet generally cold; sleep interrupted by the palpitation.

She was put under the influence of small doses of tartrate of antimony and blue pill; and at the same time an embrocation of croton oil was ordered to be rubbed over the chest and the affected arm, until a free eruption was produced. So long as the patient continued this plan of treatment, and remained quiet, she experienced great relief; but the palpitation returned nearly as violent as ever upon slight exertion, and she began to complain of a degree of debility which she had not before been subject to. Under these circumstances, she was ordered to have an ointment, prepared with twenty grains of Veratria to an ounce of lard, rubbed over the region of the heart for five minutes night and morning; and owing to the severity of the pain in the arm, frictions with the croton oil were ordered to be made along it until a raw surface was obtained, and over this the Veratria Ointment was applied.

On the night after the first application the sym-

ptoms were very much diminished in intensity, but the Veratria had occasioned a degree of heat and tingling in the arm so great as to prevent her sleeping; the pain, however, never afterwards returned. In three or four days she began to take exercise without inconvenience, and at the end of three weeks left town, and returned home quite well.

An error had crept into the original account of this case. Instead of a *raw surface*, it should have been a *pimpled surface*.

CASE 4.

Mr. J., a clergyman, fifty years of age, has been affected with severe palpitation for the last seven years, accompanied by quickness and irregularity of the pulse, difficulty of breathing, loss of voice, cough, expectoration, and a distressing sense of anxiety: he has sometimes been seized in the pulpit with giddiness, succeeded by throbbing in the neck and confusion of intellect, and these symptoms have occasionally gone to such an extent as to oblige him to desist from his duties for two or three months at a time: his bowels are regular, and his digestion generally good.

He was ordered small doses of tartar emetic and a blister over the chest; this treatment was pursued with considerable advantage for the time, but when

remitted he soon returned to the same state as before. As this seemed a fair case upon which to make trial of the Veratria, it was ordered to be rubbed on in the manner already described. By making use of the frictions once every night he became gradually better, and at the end of a week considered himself quite well: he was advised, however, to continue the ointment a little longer, and then to leave it off by degrees. This was accordingly done about a year and a half ago, and he has remained ever since in excellent health, free from his old complaints, and able for the discharge of the functions of his office.

CASE 5.

Mr. W., aged fifty-eight, has been affected for seventeen years with palpitation, which during the last seven has been attended by great difficulty of breathing, occurring in paroxysms, and coming on especially whilst taking exercise on foot. The dyspnoea at these times has been so severe, and has been accompanied by such extreme pain across the chest, as to compel him to lay hold of the nearest object for support. The pain during the fit extends down the left arm, and is of such intensity that, in the words of the patient, "no language can describe it."

For these symptoms he has, during the last ten years, applied to many sources for relief, but without procuring any. He had a purple blush upon his face, and more particularly over his nose and lips; his voice was weak and quivering. Upon applying the ear over the region of the heart, a tremulous, confused, irregular pulsation was heard; the pulse was intermittent; the left side of the chest appeared much larger than the right, and the ribs over the cardiac region seemed pushed out as if to afford a larger space for the heart's action: There was considerable distension of the abdomen, along with a very evident degree of enlargement on the right side, immediately under the margins of the ribs; his bowels had been for some time in a very torpid state, and required active medicines to operate upon them; the lower extremities were a little swollen, and the urine deficient in quantity. His sleep was unrefreshing, and often disturbed by fits of coughing, which generally ended in great exhaustion.

As it was evident that, in a case of such severity and duration, little more could be done than merely to relieve the sufferings of the patient, by endeavouring to mitigate the symptoms as much as possible, the treatment was addressed to that end. A course of medicine was prescribed, consisting of purgatives combined with antacids, for the purpose of clearing out the bowels and removing the distension of the abdomen. These means were em-

ployed for a week, and then, with the addition of a little squill to the pills previously ordered, were persevered in for a fortnight longer, at the end of which time he felt considerably better. The swelling in the legs had diminished, the digestion was improved, and altogether he was in a more favourable state of health than before.

During the previous treatment of this case, counter-irritation, by means of blisters, issues, tartar emetic ointment, &c., had been freely employed, and with so little effect, further than bringing about a temporary alleviation, that the patient would on no account consent to their repetition, and he was therefore recommended to make use of the Veratria Ointment, but certainly without any great expectations of its producing a beneficial effect.

An ointment of the usual proportions was ordered to be rubbed, for five minutes, night and morning, over the region of the heart; and, in the course of three days, the feeling of pain and constriction across the chest had disappeared. As the pain in the left arm still remained, he was ordered to use frictions with the ointment to it, and almost immediate relief from that symptom followed the application. In the course of a fortnight from the time the Veratria was had recourse to, the most decidedly beneficial effects had been produced upon the disease: the pulse and action of the heart had become much more regular and natural, the diffi-

culty of breathing had very much diminished, the complexion was changed, and exhibited signs of an unimpeded circulation ; and this improvement went on gradually, under the occasional use of the ointment, along with medicine to act upon the bowels, so that in about six weeks he could walk about, and go up and down stairs without inconvenience. As this case was one in which a cure could not be expected, the patient was left to himself, with directions to rub the ointment whenever a return of pain or uneasiness rendered its employment necessary. This he accordingly does, and by its means is enabled to pursue his avocations with ease and comfort. Before taking leave of this case it is proper to state, that it was one of those in which the Veratria exerted diuretic effects ; for, during the first week it was used, no less than six pints of urine a day were evacuated by the patient.

CASE 6.

Mrs. C., a lady betwixt fifty and sixty years of age, has been ill about nine years. During the first three she suffered from dyspepsia and irregularity of the bowels, and for six years she has been affected with almost constant palpitation and difficulty of breathing ; which symptoms she describes as having been on the increase, until she

was obliged to confine herself to one floor of the house, from inability to ascend or descend the stairs, and to refrain from walking, under the impression that the exertion might prove fatal.

She has violent pulsation over the region of the heart, with an irregular pulse, severe pain across the chest and down the left arm : her lips are of a purplish colour, her eyes dull, her countenance sallow, and she labours under considerable nervous irritability, accompanied by impairment of the memory ; she has a degree of fulness in the right side, under the margin of the ribs, and her feet are generally cold and a little swollen. For these symptoms she had previously been treated by bleeding, blistering, and purgatives, without procuring any abatement of the disease.

From the disordered state in which the digestive organs were, she was put under a plan of treatment consisting of purgatives and antacids for about three weeks, but no diminution of the symptoms took place ; and then the Veratria ointment, of the usual strength, was ordered to be rubbed over the left side of the chest and down the arm every night. The first application afforded great relief, and the pain in the arm was considerably alleviated. In the course of a few days all the symptoms were nearly gone ; the ointment was, however, directed to be applied occasionally for about a month ; and at the end of that time the patient could walk with ease three miles at a time, and returned

home quite well, and has had no return of the disease since.

CASE 7.

The following case is given for the purpose of showing the effect which the Veratria has upon the circulation, in a disease attended by symptoms of great development of the heart's action, occasioned by simple hypertrophy of the walls of the left ventricle. Every one must have remarked the difficulty which there exists of moderating the pulsation of the heart and arteries in this disease, and that in consequence, it is no easy matter to procure even a temporary relief from the distressing sensations experienced by those who are affected by it. The cases of this kind, in which the ointment has been resorted to, are not sufficiently numerous to warrant the assertion, that decidedly beneficial effects will result from its application in every instance ; but it will nevertheless be allowed, that the subject is worthy of attention, from the fact of its having already proved successful in doing so.

Mrs. S., a lady about sixty years of age, has during the last five years suffered much from violent beating of the heart, attended by strong pulsation in the neck, throbbing and giddiness in the

head, and a continued whizzing noise in the left ear, along with feelings of anxiety, and considerable nervous irritability.

The action of the heart is strong, constant, and concentrated in a space over the situation of the apex, and communicates a powerful impulse to anything placed on it ; the pulse is very full, throbbing, and incompressible ; the carotid arteries beat violently, and the patient complains much of the noise in her ear and of giddiness ; she has also confusion of ideas and a feeling of heat and fulness in the head. She has considerable anxiety, and her sleep is interrupted by palpitation. There is some pain in the region of the heart. All these symptoms are materially augmented by exertion ; but this, from the sensation of lassitude which she almost constantly labours under, cannot be made to any great extent.

The bowels are generally costive, and require the employment of active purgatives ; the digestive functions are very active, and the appetite preternaturally great. She complains neither of difficulty of breathing, cough, nor pain in the arm. In the previous treatment of this case nothing had been found useful, and the Veratria was ordered to be rubbed over the region of the heart, after purgatives had been administered to regulate the bowels.

After the first or second friction with the ointment, all the symptoms were materially diminished ;

the palpitation had greatly subsided ; the pulse had become much softer and weaker ; the anxiety, the pulsation in the head, the feeling of giddiness, the confusion of intellect, and the sensation of whizzing in the ear had all disappeared, and the general health and appearance of the patient were much improved ; but still some of the symptoms remained. She is now in a comfortable state, and able to follow her household employments, though exertion, to any great extent, cannot be used without aggravating her complaints. From the manifest benefit experienced from the Veratria ointment, she uses it herself whenever an increase in the symptoms takes place, and with the effect of procuring immediate relief.

CASE 8.

A Gentleman, aged sixty, of a weak constitution, of sedentary habits, and given to mental occupations, has laboured, for seven years, under slight palpitation, accompanied by feelings of anxiety and general langour, coming on at intervals, and increased by exertion ; his pulse is feeble, rapid, and intermitting ; palpitation over the lower part of the left side, not excessive, but attended with a painful sensation in the region of the heart, which is so augmented by walking as to compel him to

stop and support himself on the nearest object. Respiration generally unimpeded, except under these circumstances. The nervous system is easily excitable, and continued exertion of mind very much aggravates all his symptoms. Appetite good, digestion easy, but occasionally accompanied by flatulence; bowels rather costive.

He was ordered to take opening medicine for a week, and then to apply the Veratria ointment over the region of the heart. On the night after the first friction had been used, the patient got no rest in bed from nervous irritation; his feelings of anxiety and palpitation were so much augmented, that he would on no account repeat the application: these symptoms continued unabated for two days, at the end of which the disease began to decline, although no curative means whatever had been employed after the first application of the Veratria; and he still continues well.

In this case the feelings of anxiety arose from a mistake having been made in compounding the first prescription, white hellebore having been substituted for Veratria; the former produced no peculiar sensations, but when the same prescription was properly compounded, and contained Veratria as ordered, great heat and tingling were occasioned, which so much alarmed the patient that he could not be induced to repeat the application.

VERATRIA IN RHEUMATISM.

In the acute form of Rheumatism the external use of Veratria had not been suggested before the publication of the first edition of this work. Since that time my confidence in its powers over the inflammatory stages of Rheumatism as well as over Inflammation in general has been much increased, for when it has been rubbed upon an inflamed surface and sufficient electro-stimulation produced, a diminution of pain, heat and swelling, and a secretion of moisture have followed. The heat and swelling of inflammation arise from a previous diseased action of the nerves of the part, and Veratria removes these effects as well as the pain of inflammation by its electro-stimulation inducing in the nerves a healthy action and thereby displacing the diseased one. In acute Rheumatism the inflamed parts should be rubbed with the Veratria ointment or embrocation until all pain is gone, and the friction should be repeated twice a day; and in addition to this I usually give Veratria internally, and prefer the salts to the alkaloid, as they produce a more copious perspiration. The doses are the same as in *Tic-douloureux*.

Veratria cures chronic Rheumatism by its electro-stimulation producing upon the nerves of the diseased part a healthy action, which arouses the ab-

sorbents into activity and removes the swelling and thickening of the diseased joints. In this disease the absorbents not being very readily excited require a greater electro-stimulation ; to produce this the applications must be continued from ten minutes to an hour twice a day. In this form of Rheumatism I have likewise used with much benefit the ointment of Veratria and Hydriodate of Potass, or the ointment of Veratria and Mercury. In Lumbago and Sciatica, in addition to the external treatment I frequently give Veratria internally or the Alcoholic extract of Sabadilla.

OINTMENT OF VERATRIA AND MERCURY.

R.—Ung. Hydrarg. fort. ʒi.
 Veratriæ ʒss.
 M. Ft. Ung.

CASE 1.

Mr. G., a gentleman forty-eight years of age, had been for some time been subject to severe attacks of acute rheumatism, affecting chiefly the joints of the extremities, and attended with a considerable degree of fever. For several days before he came under treatment he had been labouring under very acute symptoms of the disease ; he had had fever, a quick throbbing pulse, much heat of skin, and the elbows, wrists, knees and ankles were swollen, red, and so

very painful as to render motion to any extent impossible.

In this case the most active measures had already been put into practice. Venesection had been freely employed, he had taken repeated doses of purgatives, various diaphoretic medicines, and colchicum; and with these means the antiphlogistic regimen had been carefully pursued since the commencement of the attack, but no abatement in its violence had taken place.

The previous treatment was ordered to be persevered in, and an ointment of Veratria was directed to be rubbed upon the affected joints, for ten minutes at night, and again the following morning. When the patient was visited next day, his rheumatism was nearly gone. The ointment had occasioned a considerable increase in the heat of the parts, but the inflammation and swelling were greatly diminished, and the pain almost removed; he could now use the affected joints with ease, and there was no return of the symptoms for some days. He then experienced a slight renewal of the complaint in one of the ankles, and rubbed the ointment over the inflamed surface; but although it produced sensations of heat and tingling, no amelioration of the pain took place: the friction was therefore ordered not to be repeated till twelve hours had elapsed, and at the end of that period one application entirely removed it.

As this was one of the first cases of Rheumatism

treated by Veratria, my experience as to its proper employment was limited. My fears were, that the disease, by being suddenly removed from the joints, might be transferred to some important organ ; and although tingling and heat, which are signs of the goodness of Veratria, had been produced, they are not of themselves sufficient to show that the application has been continued long enough to produce upon the disease a new action greater than the action of the disease itself, which is the great object to be attained : in a similar case therefore, the Veratria should be used stronger, or the friction continued longer, not only until tingling and heat take place, but also an impression sufficient to remove the pain ; for in no case have I seen a translation of the disease to an important organ by the pain being suddenly removed by Veratria.

CASE 2.

A Boy, twelve years of age, and of a delicate habit of body, had been labouring for three or four days under an attack of acute rheumatism ; the pulse was quick, the skin hot, and the tongue dry, and slightly furred ; both his ankles and knees were swollen to a considerable degree, had a red and inflamed appearance, and could not be moved, on account of the pain.

On the second day of the disease, leeches and fomentations had been applied to the affected joints, and he had taken colchicum and diaphoretics, but with very little benefit. He was ordered to have an ointment made with twenty grains of Veratria to an ounce of lard freely rubbed over the seat of the pain for about fifteen minutes at bed-time.

Next morning the patient was almost well. During the night the pain and fever had disappeared, and he could walk about and move his limbs with perfect ease; the inflammation and swelling had to a great degree subsided, and the joints were restored to nearly their natural appearance. In two days afterwards, although the ointment had been only once applied, no trace of the affection was left.

CASE 3.

Mr. G., forty-five years of age, of a robust constitution, was in consequence of exposure to cold and wet seized with a rheumatic attack in the knee and ankle of the right side, accompanied with fever; he was ordered on the evening following the accession of the disease to take antimony combined with calomel; next day the symptoms had not diminished. The affected joints were swollen, inflamed and painful, and the quickness of pulse and heat of skin continued the same.

An ointment of Veratria was directed to be rubbed over the seat of the pain; on the following morning the patient could walk about the house; the pain, inflammation, and swelling had almost disappeared, and the febrile symptoms were gone: by continuing the same treatment for two days longer, he was able to follow his business, and no relapse occurred.

CASE 4.

Mr. S., a gentleman, aged fifty, had been in the early part of his life much exposed to cold and moisture, which brought on an attack of lumbago, of which he has had many returns. He has also been affected with chronic rheumatism in the hip and knee of the left side. The motion in both is very much impeded; over the hip-joint there is a fulness, and when it is moved there is a distinct crackling noise.

He had employed bleeding, counter-irritation by means of blisters, &c., and embrocations, all of which had failed in procuring any other than a temporary abatement of the symptoms.

The affected parts were ordered to be rubbed with croton oil twice a day, until a very free eruption came out, and this plan was followed with considerable success for about six weeks. This, however, at last began to lose its effect, and the pain,

which had diminished considerably, now appeared to be rapidly on the increase.

An ointment made with twenty grains of the alkaloid to an ounce of lard was ordered to be rubbed for twenty minutes twice a day over the knee and hip of the affected side ; and after it had been made use of a few times, the symptoms began to decline. The pain, swelling and rigidity became rather less, so that at the end of ten days or a fortnight the patient could bend both the diseased joints, and walk almost without inconvenience. He can now take exercise on foot, and move the articulations with freedom.

In changeable weather a slight return of the pain sometimes takes place, but this is removed by rubbing the part with the ointment for a few minutes ; and the patient is now in a comfortable condition.

CASE 5.

Mr. B., a gentleman forty-five years of age, was seized two years ago with rheumatism in the right arm and hand. He experienced great difficulty in making use of the muscles of the shoulder from the pain which attended upon any efforts at motion : the elbow joint was stiff and painful, and he was obliged to carry the arm in a sling. The fingers were swollen, and painful on motion.

This patient had previously applied many remedies without obtaining benefit, and was ordered to rub the affected joints twice a day with the Veratria Ointment; in a day or two all uneasiness had left the shoulder and elbow, and he could move the arm with facility. The disease in the joints of the fingers was much relieved, but the swelling appeared nearly the same: he was directed to continue the application of the ointment. He returned at the end of six weeks, when the pain and swelling had disappeared, and he had recovered the entire use of the hand.

CASE 6.

Mrs. P., about fifty two-years of age, has been for the last twelve years affected with chronic rheumatism in the joints of the inferior extremities, but particularly in the hip and knee of the right side. Her sufferings for a considerable time have been augmented by variations in the state of the weather; and for the last five years, the joints have been so painful and rigid as to oblige her to make use of supports in walking; the knee is much swollen, and gives a sensation of crepitus when moved.

In the previous treatment of this case, remedies of every description had failed; and the Veratria was directed to be rubbed on twice a day. At the

end of a fortnight the symptoms were much relieved, and she could move the limbs with some degree of ease; she went on improving, and after six weeks could walk three miles at a time with little difficulty.

CASE 7.

Mr. K., a gentleman thirty-five years of age, has been the subject of repeated attacks of lumbago for several years, and the pain has occasionally been such as to confine him to bed for a fortnight. When the disease made its appearance the patient was bled and blistered repeatedly, and took many remedies; these means were always followed by relief.

During one of these attacks he was in great pain, and could not be moved in any direction. An ointment made with twenty grains of Veratria to an ounce of lard, was immediately ordered to be rubbed across the loins for fifteen or twenty minutes, and to be repeated at night; next day he could move himself about freely without experiencing any pain. To guard against a recurrence, he persevered in the frictions night and morning for a few days; he then discontinued them, and has since been quite free from the complaint.

CASE 8.

A Gentleman, thirty-three years of age, had, about eight years ago, an attack of acute rheumatism, during which the larger joints became affected, and after the violence of the disease had been subdued, there remained a degree of pain and swelling around the articulations of the tarsus and ankle of both feet; to these symptoms there has latterly supervened so much rigidity as to disable the patient almost entirely from walking. When an attempt at motion is made, he is compelled to raise the feet from the ground without bending the ankle-joints, and he experiences great pain in pressing upon the ball of the great toe.

In this case the patient was directed to rub the Veratria ointment over the diseased parts twice a day; at the end of a fortnight the pain was gone, and the disease removed.

CASE 9.

A Gentleman, aged sixty-five, had for three years had sciatica in the right leg. The pain extended from the hip to the toes, was occasionally so excruciating that he could not make any use of the limb, but sometimes he could walk a short distance by using a crutch, or leaning upon his servant. The knee was slightly bent. He had been cupped,

leeches, blistered, had taken colchicum, iron, quinine, and other similar remedies, without deriving benefit. He came to town, and consulted a very eminent surgeon, who said that nothing but excision of a part of the nerve could afford relief. In April 1836, I ordered him to rub the Veratria ointment five hours a day from the hip to the toes. He was also to take a Sabadilla Pill every three hours. Next day all pain was gone, but he could not extend his knee. He was much surprised to find that he felt either heat and tingling, or as if he had been sprinkled with æther. The same treatment was continued five days, when he was quite free from pain, could extend his knee, and walk a considerable distance without any support. I have since seen him frequently quite well.

VERATRIA IN GOUT.

Various remedies, particularly Colchicum, have been recommended for the cure of Gout. From extensive experience it has been found that, although it removes the paroxysms, it has a tendency to render their recurrence more frequent. Many, from their dread of the injurious effects of Colchicum in gout, have not used Veratria in this disease, on the supposition that Veratria is obtained from that plant, although late chemical investigations

show that Colchicum yields a body, called Colchicine, which in its action is quite different from that of Veratria. My own experiments lead to the inference that it does not contain Veratria. Gout being more a constitutional than a local disease, as the external application only acts locally, the internal ought to be conjoined. The internal treatment acting upon the whole nervous system, along with the external, produces a healthy action in the nerves of the diseased part, and displaces the diseased action. The external application should be used twice a day, and the friction continued each time until all pain is subdued. If the Veratria has been deferred until swelling and puffiness have taken place, the friction requires to be long continued, as the electro-stimulation is not then very readily induced.

Sir Charles Scudamore, undoubtedly the highest authority on gout, in his "Principles and Treatment of Gout," has made some judicious remarks of the use of Veratria in this disease. As illustrations of the utility of the remedy, I shall insert three of his cases.

"CASE 1.

"A Lady, aged forty-four, subject to severe attacks of regular gout, in an unusually severe paroxysm derived great benefit from the internal

medicines which I prescribed ; but she remained entirely lame, from the tender, swollen, and rather painful state of the ankle-joint and foot. I directed the Veratria ointment, in the strength of ten grains to the ounce, and the good effects of the application were very quickly shown. She described that she was in considerable pain at the commencement of the friction, but that it abated at the end of twenty minutes, and was exchanged for strong prickings like those from electric sparks, and a remarkable warmth, rather agreeable than the contrary. These sensations lasted about an hour. On the following morning the swelling of the ankle and foot was much reduced, and allowed of standing. A further perseverance with the remedy proved very beneficial ; and this lady, by means of it and further general treatment, recovered in the most favourable manner."

"CASE 2.

"A Gentleman, aged sixty, one of the greatest martyrs to gout that I ever saw, was seized with sciatica and lumbago, at the same time that he was affected with sharp gout in the knee. There was much error in the state of the biliary system. I prescribed mercurial evacnants, sudorifics, and sedatives. After six days of this treatment, although improved in his general condition, he com-

plained of continued suffering from the sciatic nerve, and great, though not equal, distress from the knee. The Veratria ointment was rubbed in upon each affected part. It produced the sensations of heat and electric-like prickings for nearly an hour, and very decidedly relieved the complaint. It was repeated three or four times with complete success. The skin became irritated, as if by a strong rube-facient, but no sore followed. The patient was highly gratified by the effects of the remedy."

"CASE 3.

"Another patient, too anxious for the quickest relief, used the remedy on the second day of an attack of acute gout in the foot, the part not being so exquisitely tender as to prevent moderate friction. Active evacuants had been taken at short intervals with full effect. The proportion of the Veratria was ten grains to the ounce. No particular sensations ensued from the friction, and no apparent benefit resulted. Five grains of Veratria were added, and the friction was followed up for a longer time. Now the patient became very sensible of the peculiar sensations before mentioned. On the following day there was a very manifest abatement of the gout, and the patient acknowledged the improvement. In conjunction with its further use, I prescribed the mild colchicum aperient draught

and alteratives. The recovery was uninterrupted, and a favourable convalescence was established in the course of a fortnight."

VERATRIA IN VARIOUS DISEASES.

As Veratria for the removal of dropsy had been treated of in the former editions of this work, it might have been expected that a further account of it would here be given ; but as this disease arises from a great variety of causes, to enter upon it as minutely as its importance demands would occupy a larger space than the prescribed limits of this work will admit of. Since 1820, when I graduated at Edinburgh, and published my inaugural Thesis on Dropsy, this disease has occupied much of my attention, and I intend to publish at a future period my views upon this subject, which will illustrate a principle not hitherto developed, originally suggested by my celebrated preceptor and friend the late Dr. Gregory, whose memory, from his unwearyed and almost parental kindness to me, can never be effaced from my mind. In that work I shall show that Veratria has an influence in promoting the absorption of dropsical effusion, and that it does not act as a certain diuretic. As the previous diseases have been fully treated of, short accounts only will be necessary for the following. In paralysis, the exhibition of Veratria internally and ex-

ternally will be found useful, but is not equal to the internal administration of the Alcoholic Extract of *Sabadilla*. In spasm of the stomach, the friction with *Veratria* should be continued until the spasm is removed. In cramps of the legs, to which many persons are subject during the night, the attacks may be prevented by rubbing *Veratria* on the affected parts for ten minutes at bed-time. In scrofulous swellings in the neck or other parts and in *goître*, either *Veratria* alone, or in combination with *Hydriodate of Potass*, should be rubbed upon the seat of disease for a quarter of an hour twice a day. In *cynanche tonsillaris*, the application should be rubbed upon the throat for ten minutes three or four times a day. Of all the diseases in which *Veratria* has been found serviceable, there are few in which it affords greater relief than in the cases of children from five to ten years of age during dentition, when too early extraction of the teeth is so often injurious, and great difficulty in applying local remedies to the inside of the mouth is experienced. In such cases the *Veratria* must be rubbed upon the outside of the cheek until the pain is gone. When applied in the same way in toothache it affords great relief. In bruises and sprains, if the *Veratria* is used immediately after the accident, the patient is soon relieved of the pain, but when swelling has taken place, the application requires to be much longer continued before the electro-stimulation can be produced, and if persevered in,

the affected parts will be much more quickly restored to their natural state than by any other means. It is a rule in the application of Veratria externally, that the skin be unbroken.

CASES COMMUNICATED TO THE AUTHOR.

CASE OF TIC-DOULOUREUX CURED BY VERATRIA OINTMENT.

Communicated by J. Holme, Esq., Surgeon, Linton, Cambridgeshire.

Miss L., a young lady ten years of age, has suffered from tic-douloureux for about four years. In the winter of 1829-30 she first complained of frequent pains in the face, in the situation of the infra-orbitary foramen, attended by intermissions, and which at first were considered as probably connected with the teeth. In the winter of 1830-31 her sufferings became much greater, and on account of the intermitting nature of the pain she was then treated with quinine; but having experienced no relief from it, she had three teeth extracted, yet without benefit. During the summer of this year (1831) she was not free from suffering, especially when exposed to chilly weather; and if she happened to be out after sunset the pain was brought on.

In the commencement of the next winter I first saw her; at that time she was under active medi-

cal treatment, and had taken carbonate of iron, arsenic, morphia, belladonna, quinine largely, purgatives, mercury, and had made use of topical applications, but all without advantage. The paroxysms of pain came on at regular periods, two and three times a day, for the space of from two to five hours at each accession.

In February 1832 she was taken to London, and put under the care of several eminent practitioners, but derived no benefit, except for three weeks in July, after which the pain returned with increased violence. Baths of various kinds were also tried, but without effect. She returned home; and six weeks since, the Veratria Ointment was first tried, and in about five days she experienced much relief. Within that time she had no attack of pain during the night, and in three days more the daily paroxysms nearly ceased. We continued to rub the ointment for about twenty minutes before the expected time of the attack, and in one day less than a fortnight from beginning to use the frictions all recurrence of pain had left her, and she now continues quite free from any inconvenience. The only medicine she took during the use of the ointment was four grains of *pil. aloes et myrrhæ* at bed-time.

April 21, 1834.

CASES IN WHICH THE VERATRIA OINTMENT HAS
BEEN EMPLOYED.

Communicated by Edward Macgowan, Esq., M.D., Exeter.

CASE 1.

The first case happened in a farmer, about thirty years of age, who had been many weeks suffering from severe rheumatism in the articulations generally, but especially of the knees and feet. He presented the rheumatic diathesis in a marked degree, and there was a great tendency to leucophlegmatic anasarca. I gave him the subcarb. ammon. internally, with guaiacum, and ordered frictions on the joints to be made with the ointment of Veratria. In the course of a week he rode into Exeter, a distance of five miles, and told me he was quite recovered.

To my surprise, the swellings and pain in the joints had subsided, and the general health was much restored. He had been almost a cripple previously; and has not since had, to my knowledge, any return of his former complaint.

CASE 2.

An elderly Lady, of gouty diathesis and subject to frequent attacks of gout in the feet, suffered much from a swelled leg and foot, which presented an

appearance precisely similar to the Barbadoes leg. There was besides a chronic inflammation in the toes of the same limb, around the nail of the large toe particularly, which had often been attacked by gout, and which was accompanied with a fungous kind of ulceration. The whole limb was greatly enlarged, and the cellular tissue extremely hard, with now and then an erythematous inflammation over the surface. After poppy-head fomentations, &c. I used the Veratria Ointment, which reduced the swelling, and abated the pain beyond my hopes. At first it produced a slight irritation, which obliged me occasionally to suspend the frictions ; but that was the only inconvenience that resulted from it. The limb is still considerably enlarged, but much reduced and less painful than before, which I certainly think is owing to the Veratria.

I have some other instances of the advantageous exhibition of Veratria externally, which confirm me in the persuasion of its efficacy in rheumatic and gouty swellings, particularly in debilitated constitutions. In such cases it seems to stimulate the capillary and absorbent systems, and bring back a vigorous and healthy action.

April 12th, 1834.

CASE OF TIC-DOULOUREUX CURED BY FRICTIONS
WITH VERATRIA OINTMENT.

Communicated by John Spence, Esq., Surgeon, Otley, Yorkshire.

A Lady, about twenty-four years of age, has been affected for the last eight or ten years with a most painful neuralgic affection, situated in the cheek and temple of the right side. The pain makes its appearance in regular paroxysms, varying in length from a few days to several weeks, and is succeeded by intervals of partial relief. The state of the patient has been very distressing, and during the continuance of the attack her sufferings have been so extreme as to bring her into a condition almost bordering on distraction.

Before she came under my care she had been treated by active depleting measures ; she had been bled generally and locally, and had applied topical remedies of almost every description, including repeated blistering, but without experiencing any cessation of the pain. For some time I continued a similar course of treatment, along with the internal administration of various medicines, none of which however had a good effect, except preparations of iron : these succeeded for a time in diminishing the severity of the affection, but appeared to have no power in removing it. I now ordered the patient to rub the affected part of the face for twenty minutes with a portion of ointment made with a scruple of Veratria to one ounce of lard, when the

paroxysm came on. Next time I saw her, she told me that when the pain made its appearance she applied the ointment as directed, and that the attack was cut short immediately. After this period the paroxysms returned two or three times, but were removed by the same means. I saw her a day or two ago; she was quite well, and is now free from the disease.

June 10th, 1834.

NOTICES OF CASES IN WHICH THE VERATRIA
OINTMENT HAS BEEN EMPLOYED.

Communicated by S. Hood, Esq., M.D., Brighton.

The first case in which I tried Veratrine was that of a Lady who had laboured some considerable time under tic-douloureux, seated in the second branch of the fifth pair of nerves on the left side of the face. Many remedies had been previously tried without effect, and it was at last determined upon to attempt the removal of the pain by means of friction over the affected part with the Veratrine ointment of the usual strength. After this treatment had been continued for three days, the disease was apparently cured, but again returned with considerable violence; the ointment was again had recourse to, and the patient is now quite well. It may be proper to state, that latterly she had been in the habit of taking three grains of sulphate of

quinine a day ; I do not think however, from previous trials of it in this case, that it would have been of the least benefit without the ointment.

In two other cases of tic-douloureux, in the first branch of the fifth pair, the Veratrine was most efficacious : in one, the disease was removed by it in a single night ; the other was relieved on the third day after the first application of the ointment ; there was, however, a relapse in about a week afterwards, but the pain was again removed by the friction, and the patient is now quite well.

In addition to these, I have prescribed the Veratrine ointment in three cases of painful affections in the course of the sciatic nerve ; they went on gradually improving, and are now cured.

About the diuretic effects of the Veratria there can be no doubt ; in every instance in which I have employed it, the application has been followed by an increased discharge of straw-coloured urine. In dropsical cases occurring in old persons, after the diuretics in common use have been carried as far as the stomach can bear them, it will be of great utility while the use of internal remedies is suspended. I have three such cases at present under its influence, and all of them are going on favourably, and likely to terminate well.

April 27th, 1834.

CASE ILLUSTRATIVE OF THE EFFECT OF FRICTIONS
WITH VERATRIA OINTMENT IN PALPITATION.

Communicated by William Porter, Esq., Surgeon, Gower Street.

A Lady, about twenty-eight years of age, has suffered from a dropsical affection for about eighteen months, accompanied with a considerable degree of palpitation of the heart and irregularity of the pulse, and these symptoms appeared to be connected with irregular menstruation, from which the patient had suffered for some time. The lower extremities were œdematous, and there was difficulty of respiration and general nervous excitement. In the treatment of the disease various measures were employed without much benefit, until about two months ago, when the œdematous state of the extremities was much relieved by the use of diuretics and drastic purgatives; the palpitation, however, continued the same as before. As this latter symptom was peculiarly annoying to the patient, the attempt was made to remove it by means of an ointment made with twenty grains of Veratria to one drachm of lard, and a small part of this was ordered to be rubbed over the region of the heart for ten minutes night and morning. After the second or third friction the palpitation disappeared, along with the irregularity in the pulse; this took place about eight weeks ago, and although the patient is still unwell, they have not returned.

June 20th, 1834.

CHAPTER II.

DELPHINIA.

As Delphinia has not yet been admitted into the Pharmacopœia, its mode of preparation and chemical history are here given.

A saturated tincture of Stavesacre seeds is to be evaporated to the consistence of a thin extract, and treated with water, acidulated by sulphuric acid: this solution, when filtered, is to be precipitated by ammonia. The precipitate, after being freed from its water, is to be taken up with alcohol, and again reduced to the consistence of extract, which is likewise to be dissolved in acidulated water: to this solution, when filtered, a small quantity of nitric acid is to be added, as long as any precipitate falls: the liquid freed from this precipitate is again to be thrown down by ammonia, and the powder dried.

When in a state of purity Delphinia is white, pulverulent, and without smell; but like Veratria, when applied to the mucous membrane of the nose, it occasions sneezing, along with an abundant secretion of mucus; its taste is at first bitter, and afterwards acrid; and it acts upon animals in the same manner, but more energetically than the seeds from which it is prepared.

When heated it melts, and somewhat resembles

wax in appearance; and on cooling, it becomes brittle like resin. It is very sparingly soluble in water, but yet in sufficient quantity to communicate a bitter taste to the fluid. In alcohol and æther it dissolves readily, and these solutions have the property of rendering syrup of violets green, and of restoring the blue colour of litmus, when reddened by the addition of a portion of acid. It combines readily with acids, and forms neutral salts, which are possessed of much bitterness and acridity, and it may be precipitated from solutions of these, in the form of a jelly, by the addition of an alkali.

The comparison of the tingling and lancinating pain, produced by many of the acrid *Ranunculaceæ* when applied to the tongue, with similar sensations arising from the application of *Veratria* to the same part, induced me to try *Delphinia*, an alkaloid obtained from one of the *Ranunculaceæ*, but not previously used in medicine. On applying it to the tongue, the same kind of sensations were experienced, and from this analogy I drew the conclusion that it might be advantageous in the same diseases as *Veratria*. I rubbed upon my arm an ointment consisting of two grains of *Delphinia* and a drachm of lard, which in a few minutes produced heat and numerous small tingling points in the part, accompanied with a throbbing sensation and a slight blush of redness upon the skin, and after a few hours the arm felt rather cold. I then

prescribed it in cases of tic-douloureux and other diseases with much success; and from lengthened experience I am able to state, that, as a therapeutic agent, in the same diseases Delphinia is not in general inferior in value to Veratria; and as it does not produce the exceedingly nauseous taste of the latter body, it is better adapted for neuralgic affections of the tongue and parts within the mouth. In tooth-ache Delphinia Embrocation is to be applied upon lint to the cavity of the tooth or to be rubbed upon the gum. From the power which Delphinia possesses of exciting the capillaries of the skin, it is more fitted for paralysis than Veratria. A description of the application and doses of Delphinia and its salts, both externally and internally, being similar to that of Veratria, is rendered unnecessary, and the reader is referred to the part of the work on Veratria connected with this subject.

Formulæ of the different preparations are subjoined.

DELPHINIA OINTMENT.

R̄.—Delphiniaë	ʒss.
Ol. Olivæ	ʒi.
Adipis ppt.	ʒi.
M. Ft. Ung.	

DELPHINIA EMBROCATION.

R̄.—Delphiniaë	ʒi.
Sp. Rect.	ʒij.
Ft. Embr.	

DELPHINIA PILLS.

℞.—Delphiniaë gr. i.
 Ext. Hyoscyam.
 Pulv. Glycirrhez. āā gr. xij.
 Ft. Pil. xij. quarum sum^r. una tertiis horis.

Any of the salts of Delphinia may be employed in the three preceding prescriptions in the same proportions.

Feb. 8th, 1834.—Mr. J. Sears, Bride Terrace, Liverpool Road, Islington, aged sixty, was about seven years ago seized with tic-douloureux in the course of the frontal nerve, on the left side; about four years since, the affection extended to the infra-orbital nerve and side of the face. The pain was so agonizing that he could not bear to speak a word for many hours together, and the muscles of the face were in constant movement. Since the commencement of the attack the pain has continued, with occasional intermissions only of a day or two.

All attempts to give him relief had failed, and for three years he had been compelled to relinquish his occupations. For three weeks before he came under treatment, he had of his own accord made use of frictions with the Veratria ointment over the seat of the pain, and under its influence he experienced considerable relief. He was ordered to continue the frictions with the Veratria ointment whenever the pain showed a tendency to return.

13th.—The pain has disappeared from the temple, eyebrow, and side of the face, with the ex-

ception of a point exactly over the infraorbital foramen, where it still continues severe, and from whence it occasionally darts to the other parts which were previously affected.

In order to try the comparative effects of the Veratria and Delphinia, he was ordered to discontinue the former, and to use in the same manner the Delphinia ointment.

17th.—Since last report he has been improving, and is at present quite free from pain. He was ordered to use the Delphinia ointment if the pain should return.

20th.—The pain has never appeared except at the point already mentioned. The same prescription to be continued.

23rd.—The patient is better today than he has yet been; there is still, however, a tendency to a recurrence of the pain: he was directed to discontinue the external use of the Delphinia, to rub a portion of the same ointment inside of the mouth, along the angle formed by the gum and cheek, as near as possible to the situation of the infraorbital foramen, and to continue the friction until the pain was removed, or as long as the application could be borne.

25th.—The Delphinia occasioned no irritation in the mucous membrane; it gave rise, however, to a sensation of tingling, accompanied with some degree of salivation. The pain has almost disappeared.

March 11th.—The slight pain he experienced when last seen disappeared, and with the exception of a little feeling of uneasiness, which lasted only a minute or two, he has had no symptom of his former disease. He has resumed his employment after an interval of three years, has exposed himself to drafts of cold air, and to all those causes which used formerly to bring on severe paroxysms of pain, but up to this date (January 1837) he has not had the slightest return.

A Farmer, aged sixty, was afflicted with tic-douloureux for seven years. It occupied the whole of the left side of the face, except the lower jaw, and was more particularly severe near the infraorbital foramen. A spasmodic quivering of the muscles of the face prevented him at times from being able to speak. For the last four months the pain has been almost constant, his sleep interrupted, and his health injured. On the 25th of April, 1834, the Delphinia ointment was ordered to be rubbed twice a day for a quarter of an hour over the affected part, or until the pain was removed.

The pain ceased at the first application. The patient visited me once a week, and about the 23rd of May he was cured and his health restored. A physician who had witnessed many cases of tic-douloureux cured by Veratria, was desirous of ascertaining

the powers of Delphinia, and was present during the progress of this case.

A Lady, aged forty-two, had been for five years affected with tic-douloureux in the whole of the left side of the face ; the pain was very severe, and her intervals of ease were short. A few days before she came under my care she was seized with palsy of the right side of the face, tongue, right arm, and leg. She had no power over the arm, but could move the fingers freely ; the leg could not be raised. The paralytic attack had no effect in diminishing the intensity of the tic. She had consulted various eminent practitioners, and resorted to every part where she expected to find relief, without effect. In April 1834 I ordered Delphinia ointment to be rubbed on both sides of the face, and on the extremities, for ten minutes twice a day.

In three weeks the tic was gone, and by continuing the same means three weeks more, all the paralytic symptoms were removed, and I heard from her in January 1837, when she continued quite well.

CHAPTER III.

DISCOVERY OF ACONITINE.

HAVING for some years experienced the beneficial effects of a strong tincture and extract of the dried roots of the *Aconitum Napellus* in the cure of painful and nervous diseases, and knowing that when applied to the tongue or rubbed upon the skin they produced the same heat, tingling, and numbness as are experienced when the plant is applied to the same parts, I thought that if a substance upon which these sensations depended could be obtained from the plant in a concentrated state, it would most probably possess still greater remedial powers than the preparations just mentioned. With this view I instituted a series of experiments, and discovered a substance which I called Aconitine, an account of which I published in my work on Aconitine in 1834, and in my work on the Ranunculaceæ in 1835.

When any part of the *Aconitum Napellus* is applied to the tongue or rubbed upon the skin, it *produces* in these parts *heat, tingling, and numbness*, which continue for several hours. The *same sensations* are *experienced* from a *tincture* or *extract* of the plant; and when a very minute portion of the *extract* is applied to the *eye*, intense heat and tin-

gling are produced, and the *pupil* becomes very much *contracted*, and continues so for several hours. The substance mentioned in my work under the name of *Aconitine*, when applied to the tongue or rubbed upon the skin *causes intense heat, tingling, and numbness*, which continue for more than *twelve hours*. The chief sensations arising from Aconitine, when used in disease, as may be seen from the description of their feelings by the patients whose cases are related in this work, are *acridity or tingling* and *numbness*. It gives me great satisfaction to be able to state that all the writers who have mentioned the action of Aconitine since I published my work on Aconitine, have without a single exception borne testimony either to the *tingling* or *numbness* produced by it. One of the first who gives an account of it is Professor Thomson, who has lately enriched therapeutics with many valuable and important medicines. In a clinical lecture delivered by him at the North London Hospital, and published in the *Lancet* of February 14, 1835, of two patients treated with *Aconitine*, he states that one "complained of the ointment (8 grs. Aconitine to 3 of lard) causing a *pricking* sensation soon after it was applied," and that in the other "it caused a sensation," to employ the patient's own language, "*of needles running into the limb.*" I further quote from Mr. Skey's cases, which are appended to this work. Mr. Skey states that "in the case of Mr. Spry, a well-known member of our profession, five

grains of *Aconitine* were rubbed down into an ointment with five drachms of cerate, and it was applied in a small quantity by the forefinger over the track of the painful nerve, and was gently rubbed or rather smeared over the surface for half a minute or longer. He describes the medicine as very powerful, producing a sense of *numbness* over the jaw, which continued for about twelve or eighteen hours, and during which the functions of the motor nerve were perfectly unaffected, so that the effects were rapid and conclusive." The other case is that of Richard Hodge, who was an in-patient of St. Bartholomew's Hospital, and had for fourteen days used an ointment (5 grs. *Aconitine* to 5vj. cerate) "most sedulously, without producing any perceptible effect either on the skin or upon the nerve." After this some *Aconitine*, which possessed the characteristic properties of this body, was used. The patient "when asked to describe the effect produced by the ointment, said, 'It appeared to search out the pain.' He likewise said it produced a *numbness* of his face."

In still further confirmation of my account of the properties of *Aconitine*, I am happy to be able to quote the high authority of my friend M. Berthemot, colleague of the celebrated M. Pelletier, of Paris. In a note on *Aconitine*, communicated to M. Soubeiran, and inserted in his work entitled 'Nouveau Traité de Pharmacie', published in 1836, p. 715, M. Berthemot states that "*Aconitine* has a

very acrid taste, and a small quantity applied to the tongue occasions a *paralysing* action of the most *energetic* kind."

When a grain of Aconitine is mixed with two drachms of lard, and a very minute quantity of this is applied to the *eye*, the heat and tingling are almost insupportable, and the *pupil* becomes *strongly contracted*. Having discovered a body which, when applied to the eye, contracted the pupil, I invited several persons to witness this peculiar action. Upon one occasion my much esteemed and scientific friend Sir George Sinclair, Bart., Dr. Kent, and Mr. White were present. The case was that of a man many years blind from Gutta Serena, the pupil being very much dilated and immoveable. One grain of *Aconitine* was mixed with two drachms of lard, and of this a very minute portion was inserted within the eyelids. In a few minutes the *pupil* became *contracted* in a very remarkable manner. On comparing this account of the physiological properties of the body I call Aconitine, with the well-known law, that the body which contains the greatest number of the peculiar properties of a plant should be called its *Alkaloid*, it will be seen that the substance I employ in medicine fulfils every indication of this law, and is therefore entitled to the appellation of *Aconitine*.

In the *Annalen der Pharmacie*, 1833, vol. vii. Part iii. p. 276, a substance has been described by Hesse and Geiger as *Aconitine*, which has the

following properties: " Its taste is acrid, but this acridity is neither strong nor permanent; *very different from that of the plant, which frequently continues more than twelve hours, and leaves the tongue quite benumbed.* The acrid principle is intimately united with impure Aconitine, but in combining this alkali many times with acids and decomposing the salt formed, the acridity is at last entirely taken away. *Aconitine, deprived entirely or almost entirely of the acrid principle, when applied to the eye produces dilatation of the pupil.*" From this extract it will be seen that the Aconitine described by Hesse and Geiger is *devoid of heat, tingling, or benumbing* property, and produces *dilatation of the pupil.* In all these points it differs from the characteristic properties of the plant, and is therefore not in any way entitled to the appellation of Aconitine. Independently of this, in their process for obtaining it, an elevated temperature and the repeated use of acids and alkalies are employed; which circumstances are at variance with the law so ably laid down by Professor Christison in his Essay on Conia. " All chemists are agreed that the agency of strong acids or strong alkaline solutions, more especially when concurring with an elevated temperature, should in general be avoided, as tending rather to form new compounds than simply to detach compounds already formed by nature." In the processes I employ all these sources of error are avoided.

ACONITINE.

Aconitine may be used with equal advantage both externally and internally in the same diseases as Veratria: externally, it may be employed in the form of ointment, embrocation, and plaster; internally, in pill. Aconitine applied externally, producing only local effects, may, without injury to the constitution, be increased in strength and repeated as often as the severity of the disease requires: it never occasions the least redness upon the skin. Aconitine is preferable to Veratria or Delphinia for parts where the skin is thick, as it induces heat and tingling much more readily in those parts than either of the other alkaloids; and when it loses its electro-stimulating power upon the skin, it should be increased in strength, or, what is often better, be combined with one of the other alkaloids. In the removal of disease, Aconitine acts by its electro-stimulation, producing upon the part to which it is applied an action of health which is greater than the action of the disease. Given internally in the dose of $\frac{1}{16}$ of a grain every three hours, it generally induces great heat and tingling upon the surface of the body, but if these sensations do not occur, the dose should be gradually increased. It frequently acts as a diuretic. In consequence of the expense of the alkaloid, I have often substituted with good effect the Tincture and Extract of Aconite. As in illustration of

the action of Veratria many cases were given, and as Aconitine in its action is very similar, few only have been judged necessary.

Formulae of the preparations of Aconitine and Aconite.

ACONITINE OINTMENT.

℞.—Aconitinæ gr. xvi.
 Ol. Olivæ ʒss.
 Adipis ppt. ʒi.
 M. Ft. Ung.

ACONITINE EMBROCATION.

℞.—Aconitinæ gr. viij.
 Sp. Rect. ʒij.
 Ft. Embr.

ACONITINE PILLS.

℞.—Aconitinæ gr. i.
 Pulv. Glycirrhiz. gr. xvi.
 Syrup. q.s.
 Ft. Pil. xvi. quarum sum^r. una tertiis horis.

TINCTURE OF ACONITE.

Macerate one pound of coarsely powdered Aconite Root in two pounds of Rectified Spirits for seven days, and filter.

Dose, five drops three times a day.

ALCOHOLIC EXTRACT OF ACONITE.

Evaporate the Tincture of Aconite to an Extract.

ACONITE PILLS.

℞.—Extr. Aconiti Alcohol. gr. ij.
 Pulv. Glycirrhiz. gr. xii.
 Syrup. q.s.
 Ft. Pil. xij. quarum sum^r. una tertiis horis.

ACONITINE IN TIC-DOULOUREUX AND NEURALGIA.

A young Lady, aged seventeen, received two years and a half ago a blow a little above the inner side of the left ankle-joint. This was followed by tenderness in the part, which increased until she was unable to use the joint without considerable pain in the seat of the injury. For this affection she was leeches, blistered, used sea-bathing, and various other means for two years, and had plasters composed of mercurial ointment and tartrate of antimony for six months, without deriving much benefit. Upon examination on the 14th of August, 1834, I found no disease in the ankle-joint: the only thing she complained of in the injured part was severe pain, which was much increased by attempts at walking. She was otherwise in excellent health. I considered this case one of pure neuralgia, and ordered the Aconitine ointment to be well rubbed over the affected part fifteen minutes twice a day, or oftener if the pain returned. By the first application of the ointment the pain was removed, and she could walk without inconvenience. The ointment was used for three days more, since which time she has been able to take exercise on foot freely, and continues well at the present date, January 1837.

A Gentleman, aged sixty, has for five years suffered from tic-douloureux in the cheek, side of the nose, and forehead of the left side. The pain was almost insupportable, and recurred every few minutes; and from the fear of increasing it by speaking, he was in the habit of communicating his ideas by writing. Mastication and shaving the upper lip augmented his sufferings. The remedies he had used were, extraction of six teeth, opium, hemlock, belladonna internally and externally, stramonium, bark, carbonate of iron, mercury to salivation, and blistering, but without any beneficial effect. Two years ago he gave up medicine, and trusted to the effects of time and attention to his general health.

On the 18th November, 1834, he was ordered to rub over the whole seat of the disease the following ointment, and to continue the friction for ten minutes, or until the pain had disappeared.

Rx.—Aconitinæ . . . gr. iv.
Alcohol. . . . q. s. ad solv.
Adipis ppt. . . . 3 iv.

M. ft. Unguent.

This prescription was made use of about three o'clock P.M., and I saw him again about seven. I found he had taken his dinner without experiencing the least uneasiness, a thing he had not done for years, and that he had had no pain since the friction was made. The friction had occasioned a sensation of heat and drawing over the affected part, succeeded by great numbness; and to prevent

a return, a small quantity was ordered to be rubbed inside the mouth and over the gum of the upper jaw of the affected side, and to be washed off immediately.

19th. He rubbed the ointment last night and this morning, but has had no threatening of a return. He was ordered to continue the frictions twice a day, or oftener if the pain came on. This relief continued altogether above five days, during which time the patient walked about, and exposed himself to the air without experiencing any uneasiness.

26th. Yesterday he was ordered to make use of an ointment containing two grains of Aconitine to a drachm of lard, and to rub it inside and out as before. The alkaloid made use of in this prescription did not produce the usual sensations of pricking and numbness. On account of the apparent inactivity of the ointment, he was ordered to take five drops of the Tincture of Aconite every three hours.

29th. The tincture produced its full effects upon the patient. He feels weak and confused, and experiences a sensation of tingling in the head and extremities, but the pain is not at all abated. It was now determined upon to allow the effects of the previous treatment to subside by a few days' rest, previously to making use of such a preparation as would make a decided impression upon the disease.

Dec. 2nd. Since the last report the pain has continued unabated, and he appeared when visited

to be in a state of considerable suffering. The following ointment was immediately rubbed over the seat of the pain, which now occupied the whole side of the face.

R.—Extract. Aconit. Alcohol. . . . ʒi.
Adipis ppt. ʒij.
M. ft. Ung.

In about ten minutes after the commencement of the friction the pain was gone, and the patient experienced a slight degree of tingling. The friction, however, was persevered in for half an hour, and during the continuance of it a most acute pain came on in the eyebrow of the affected side. It was of such intensity that the patient declared all his previous sufferings inferior to it; but it lasted only two or three seconds, and since that occurrence he has had no return of the complaint, except a very slight feeling of uneasiness in the gum. The object of continuing the friction so long as half an hour was to induce the sensation of tingling to as great an extent as the patient could bear it; and the application was ordered to be repeated in the same manner whenever this subsided, the object being to keep up a continued impression upon the nerves of the part. He has made use of the above prescription, with the exception of the proportion of the extract having been increased from time to time to keep up the tingling. A day or two ago he was ordered an ointment containing eight

grains of Aconitine to a drachm of lard, which he was directed to apply two or three times a day, and he left town this morning (Dec. 15th) perfectly well.

The history and treatment of the following case, previously to its coming under my care, are taken from a very able lecture on Neuralgia by Professor Elliotson, published in the *Lancet* of December 8th, 1832.

“ DREADFUL CASE OF TIC-DOULOUREUX.

“ The disease to which I am particularly anxious to direct your attention on this occasion was one of a most horrid description, and one in which I am sorry to say I did no good whatever, or at least only produced a temporary alleviation from time to time. It was a case of neuralgia occurring in one of the fingers. You know that by *neuralgia* is meant a pain of the part, the word being derived from *neuron*, nerve, and *algos*, pain. I will read his case to you, for it is one particularly interesting, and it must become more so when the patient returns, for he is only gone out for a time.

“ This man was a journeyman printer, aged thirty-two, and had been ill two years. He first of all had pain of the legs, arms, and wrists; and when he came in, the pain was confined to the middle-finger of the left-hand, on each side, along the

course of the nerve. The other fingers of the same hand were benumbed,—were without any great degree of feeling, but the thumb was unaffected. Originally he had had pain on the right side of the face—that is, on the opposite side of the body, and the pain then commenced in the sub-maxillary nerve, and extended upwards, so as partly to affect the second branch of the fifth pair, as well as the third. It is, therefore, to be recollected, that he had had neuralgia in another part of the body. All this, however, had ceased a month before admission, at which time he had only pain on each side of the middle-finger, and after that had existed some time, the *other* fingers had become benumbed.

“The pain was of a very agonizing character, a plunging, stabbing pain, as though you were running a penknife along the finger. Patients usually describe the pain in neuralgia as stabbing and plunging. The least touch gave him violent pain, like an electric shock. As the least touch produced such violent pain, he could not bear his nails to be cut, and the consequence was, that the nails of that hand had grown to a great length. He could not sustain the motion of the hand which the cutting of the nails necessarily produced, and the agony of the pain was such, that he bit the nails of the fingers of the other hand, so that the nails on the fingers of it were eaten down by him, in his agony, as far as they could be. The appearance

was certainly very remarkable ; for on one hand, the nails were, as I have just said, as short as they could be ; and on the other hand, though they were not so long as they might be, yet they were of very great length. I believe whenever he had a very violent attack of pain, the nails of the affected hand became discoloured, and remained so for some time.

“ I could detect no cause for this at all. I could connect it with no obvious morbid state, and, therefore, what produced the pain I could not tell. I could only say there was a pain, and that the pain was clearly situated in the nerves—following the course of nerves, affecting other parts also, exactly in the situation of branches of known nerves, and having the usual character of pain of the nerves, or at least, what it very frequently is, stabbing and plunging. There was no heat or inflammation of the fingers ; nothing whatever is to be seen, but yet there was agonizing pain, and the slightest touch aggravated the pain when present, or brought it on at a moment when he scarcely felt any.

“ *Treatment.*—One of the best remedies in this disease, but by no means a specific, and by no means so successful I think as in some other nervous complaints, is carbonate of iron. As this case was very severe, and had lasted two years, I at once gave the man a large dose of iron.

“ This man’s complaint having lasted two years, and carbonate of iron being an innocent remedy, provided you keep the bowels regularly open, he

took half an ounce three times a day ; and when he had taken that for five days without any benefit whatever, he took the same quantity every four hours.

“ Now this did him a certain degree of good. He was better. Still he had pain sufficient to keep him awake at night ; and I gave him, in addition, a quarter of a grain of muriate of morphia. The benefit was but temporary, and I applied to the finger a solution of the cyanuret of potassium, which has been so much praised by the French. But it did not relieve him materially, and the solution was then made stronger than the French have recommended it. It was carried as far as twenty-four grains to an ounce of water. After a time it was suggested, that it was merely the cold which did him good, and I applied ether to see if that would relieve him, and it did so, much more than the solution of cyanuret of potassium had done. Still, however, he was very little better. The amendment which he at first experienced on taking the iron ceased, and I was obliged to increase the dose of medicine, and likewise the muriate of morphia, for he obtained no sleep. He took a whole grain of the latter every night. The iron was then increased to the quantity of an ounce, and it was given every four hours. His health improved under it, and from being pale and thin, he lost his great paleness, and gained flesh, and thought himself quite another man, so far as his general health was concerned. The quantity of cyanuret of potassium

was increased now, to a drachm in an ounce of water; but it afforded no relief. He still found more benefit from ether. One could not expect a man to continue swallowing more than an ounce of iron every four hours. He would have taken it in any quantity, but it was necessary to consider his stomach, notwithstanding his good will to take the medicine. I therefore gave him another form of iron also, the sulphate. I do not know that the carbonate is superior to the sulphate in this disease, or in chorea, and the latter may frequently be taken the most easily. He began with five grains, in conjunction with the carbonate of iron, and took both every three hours. His agony was still extreme, and the sulphate was, therefore, increased to ten grains, and afterwards to fifteen. He received some degree of benefit, but it was only temporary.

“ I thought now that the iron had had a very fair trial, and it was only relinquished on the 26th of July, he having begun to take it on the 8th of March, so that he had continued it for three months. This was a very fair trial, both with respect to the quantity or the dose, and the long continuance of its exhibition.

“ Although we knew what the disease was, namely, neuralgia, yet the cause of the disease was not known. What was the local state of the nervous system giving rise to it, I could not tell.

“ I then relinquished the iron altogether, and endeavoured to apply strychnine to the finger. We

attempted to blister the finger, and then sprinkled half a grain of the strychnine upon it. It was, however, with very great difficulty that we produced vesication; very imperfect vesication was effected, and therefore it was not very well managed. I still determined on trying whether the strychnine would do him good or not, and I therefore exhibited the twelfth of a grain internally. As strychnine is so powerful an agent, I never like to begin with a larger quantity than that. It was then increased gradually to the eleventh, tenth, ninth, eighth, and so on, of a grain. Still he was no better, and I was obliged to increase the muriate of morphia to two grains every night, one grain being said to be equal to four grains of opium. The man told me with tears in his eyes, that the agony was such that he never slept.

“The strychnine was increased now to half a grain three times a day, and I had the finger smeared with croton oil. He could not bear to have it rubbed in, and therefore it was gently smeared on the part, but produced no great irritation. His health now began to decline. He was taking on the 7th of August three-fifths of a grain of strychnine three times a day, and two grains and a half of muriate of morphia; but he began to take the iron again: I gave it him without any hopes of its producing benefit, but for the purpose of improving his general health. He began with half an ounce three times a day, which was increased to an ounce, and then to

four times a day. His health soon improved again, but the pain continued unabated, and the muriate of morphia was increased to three grains twice a day. His pain was such, that I was obliged to give him an opiate in the day time as well as at night. The strychnine was not increased beyond three-fifths of a grain three times a day, and as it did him no good, merely produced some twitching of the limbs, it was relinquished on the 21st of August, never having been of the slightest service. Arsenic has been known to be serviceable in some cases combined with an alkali, as in the liquor arsenicalis. He commenced with this on the 21st of August, and began with small doses three minims three times a day, not taking it on an empty stomach. This was increased gradually to nine minims, but without any effect on the disease.

“ All this time the arsenic did no good ; he bore it very well, but it was of no service to him, and I therefore gradually increased it to the largest dose that I ever gave—viz. twenty minims three times a day. He now began to look thin again—did not look so well as before. I could not, however, tell whether it was the result of the arsenic. It might merely have arisen from his extreme suffering, but still it was right that I should discontinue the medicine, and I did so without his having derived the slightest benefit from it during the whole period of its exhibition. As it was necessary to procure sleep, the muriate of morphia was gradually in-

creased up to six, and at last to eight, grains twice a day. His agony was such, that he begged to have the opiate, and he also begged to have it increased, otherwise he said he could scarcely exist. He was taking, therefore, at last, eight grains of muriate of morphia, twice a day, which gave him ease, (I got him to omit it once or twice, but he suffered so much, that he begged to have it again,) and twenty minims of liquor arsenicalis, always taking before it nine minims of hydrocyanic acid. This he bore perfectly well, with the exception, that he looked as ill as he did when he first came in, not worse, but just as he did before I gave him the iron.

“ He now wished to go out of the hospital for a fortnight for a change, and he was supplied with a quantity of muriate of morphia to take with him till he came again.

“ I attempted, during the time, other local measures. He once rubbed the extract of stramonium on his finger frequently every day, and it relieved him for a time. He rubbed also the extract of belladonna, two or three times a day, and this, he said, certainly produced relief for some time; but I am sorry to say, that at the very last he was nearly as bad as at first. He himself maintained, that he was a great deal better; he did not *allow* it, but *maintained* it. I was afraid that he was not improved, but he assured me that he was better after he took the iron; that altogether his suffer-

ings were not such as they were before he came to the hospital ; but still they were dreadful. He appeared to be an excellent man, a man of a strong mind, but in his agony the tears were seen running down his cheeks.

“ He will return, but I have no idea of medicine doing him any further good. We have given him the most powerful remedies, and these have been used in the most powerful manner, although with great care ; but he is not materially better, and, therefore, when he comes back it is to be considered whether or not he shall have his finger amputated. I have very little hope, however, in the operation, and for this reason—cases have occurred in which the operation has failed, the disease having reappeared in the corresponding nerves of the other hand, and in the trunk of the nerves, the branches of which have suffered amputation. Still it may be right to make the trial. I have little hope of success, however, for another reason, because he has had the affection before in the nerves of the face. It looks to me as though there were some cause of irritation high up in the nervous system—in one of the centres of the nervous system. I imagine that in some part of the brain or spinal marrow there is a source of irritation, and, therefore, that amputation will only relieve him temporarily, that the disease will reappear either in the nerves of the same hand, or of the other hand, or in some other part of the body.

“ I may state that in the Philosophical Transactions, Sir Everard Home remarked that mere division of the nerve proved fatal. You might think that dividing a nerve would be sufficient, but the reverse has proved to be the case, for the nerve will unite again, and Sir Everard Home mentions, that in his case great irritation of the nervous system ensued, and the patient died.

“ Not to make any other remark, I am anxious to say that I conceive I should not have done my duty to this man, if I had not pushed the remedies in the way I have stated. I never, as I have said before, would use large doses where small ones are sufficient, and it is to be recollected that in this patient I began with the arsenic, the opiate, and the prussic acid, in ordinary doses ; but as these produced no injurious effects on the constitution, and no benefit was effected on the diseased part, I of course carried them farther.

“ Respecting this particular disease, *neuralgia*, I may mention, that it does not always appear as in this man. This is what was called, formerly, *tic-douloureux*. When a chronic pain is situated in the course of particular nerves, and comes on violent stabbing, plunging, the pain being increased by the slightest brush, it was termed ‘ *tic-douloureux* ;’ but *neuralgia*, although it is synonymous with it, is used to signify any pain in a nerve. But such an instance as I have now alluded to, is a rare occurrence.

“It is a chronic disease, and the reason why you frequently cannot cure it is, that it is often connected with some organic affection. I know that, after death, nothing has been found; just as after epilepsy and paralysis. Sir Charles Bell and Magendie both state that they have examined nerves which have suffered violent pain, and have found nothing. As to old-fashioned neuralgia, such as occurred in this man, and such as we see every now and then in the nerves of the face, it is a disease which you may occasionally cure by iron and arsenic; but so far as my experience goes, in the greater number of cases the relief is only temporary.”

This patient, whose name is Samuel Best, residing at 7, Somer's Street, Liquor-pond Street, came under my care in October, 1834, and in detailing the progress of his case, I shall confine myself to a weekly report. He stated, that since December 1832, he had been suffering in an extreme degree, that he had been in the hospital about eighteen months subsequent to that date, and had been using every remedy that was likely to afford relief, but in vain. He further stated, that the only ease he had, was from taking large doses of morphia, to the extent of from ten to twenty grains a day, but that even these procured him only a few hours of broken rest. His appearance was wretched, and indicated the sufferings he endured.

First Week. He was ordered to rub the tincture of Aconite for twenty minutes along the back of the hand and fingers. The friction at first gave him extreme pain, but towards the end of the time he could bear it better; it gave rise to a sensation of heat in the affected finger, which was attended by a marked diminution of the pain. He was ordered to repeat the friction for ten minutes twice a day, and to take six drops of tincture of Aconite every four hours in water. The immediate effect of this treatment was, to enable the patient to do without his daily dose of twelve grains of acetate of morphia. The friction excited sensations of heat and numbness in the hand, and could be borne with greater ease at each successive application; he could now sleep three or four hours without interruption. The dose of the tincture was gradually augmented in the course of this week to ten drops every four hours, and the friction was ordered to be used till heat and tingling were produced, whenever the pain came on.

The pain was removed every time the tincture was applied; the internal administration occasioned tingling and numbness in the extremities, and acted as a diuretic. The patient slept six or seven hours at a time, had intervals of perfect freedom from pain, with distinct paroxysms varying in intensity, and on the seventh day from the commencement of the treatment was so far recovered that he could bear to have his nails cut.

Second Week. The same treatment was continued. Under these means the accessions of pain gradually diminished in intensity, and the intervals of complete relief became longer, so that at the end of this week he had little pain except on motion.

Third Week. He was directed to continue the same treatment, and to use the affected joints as much as he could: this however brought on attacks of pain, which were at once removed by frictions continued until tingling was produced.

Fourth Week. He was directed to substitute for the tincture the Aconitine Ointment, and to rub with it whenever he had pain.

The tingling caused by this ointment was very considerable, and generally lasted three or four hours. He had occasion to use it three times a day, and one grain of Aconitine was added to the second prescription, as the first began to lose its effect. In a day or two he discontinued the tincture internally, and was directed to use the ointment of the alcoholic extract of Aconite, in order to try the comparative effects of this application. In this case it was found to produce a more powerful sensation in the parts than the Aconitine itself, and to be very useful in removing attacks of pain. He used nothing except the remedies mentioned above. At the end of four weeks and three days from the commencement of the treatment he was totally free from pain. He can use his hand with perfect freedom, but complains of its not being so

strong as the other, probably on account of his having been obliged for four years to keep it almost in the same position.

On the 6th of January 1835, (from having been exposed to cold,) he had in the right cheek an attack of pain, which was immediately removed by the Aconitine ointment. I saw him in January 1837, when he had had no return of the pain, and was in excellent health.

A Lady, aged sixty-two, had been affected seven years with lumbago and sciatica. During this period she could not stoop to pick anything from the ground or bend the right knee. Changes in the weather added to her sufferings. Various remedies had been tried without effect. In May 1836 Aconitine ointment was ordered to be rubbed upon the affected parts a quarter of an hour twice a day. The first application produced a pulsation in the parts, and in twenty-four hours she could stoop to the ground, bend the knee, and use the limb freely. The ointment was continued a week longer, when she was quite well, and continued so when I heard from her a short time ago.

A Gentleman, aged thirty-two, was four years ago attacked with pain, which commenced in the

supraorbital nerves, extended over the forehead and whole of the head, and terminated at the nape of the neck. From this he was rarely free for more than a day, and the attacks generally continued twelve hours: sometimes they occurred whilst walking, when he was obliged to return home quickly and go to bed. For the last two years his eyesight has been so dim that he could not read the largest print without glasses. His appearance is that of a person worn out by long-continued pain. His previous medical treatment had consisted of a great variety of means, but without permanent benefit. In November 1836, the time of consulting me, I ordered him to take an Aconitine pill four times a day, unless the tingling or heat in the stomach was great, when three only were to be taken. After he had taken the pills two days he felt relieved, but complained much of heat and tingling in the extremities; the medicine had not produced any drowsiness or tendency to sleep. Three days afterwards all pain was gone, except slight twinges across the eyebrows. He continued the pills until January 1837, when he was quite free from pain, had the appearance of a person in good health, and his sight was restored.

CASE COMMUNICATED BY ISAAC LYON, ESQ., SURGEON.

*" 25, Montague Street, Russell Square,
December 15, 1834.*

" DEAR SIR,

" In reply to your communication, I beg to forward you a short notice of the case you referred to. I do not consider it a fair one, on account of the complicated disease under which the patient laboured, but it will still, I hope, be sufficient to show the utility of the plan you recommended, and to prove its efficacy in the treatment of a very painful class of affections. On the 3rd of October last, I was called to a lady, aged sixty-three, who was labouring under tic-douloureux of the face. In addition to this, I found that she had for the last twelve months been affected with pulmonary disease, having cough and expectoration of a muco-purulent matter, amounting sometimes to a gill a day.

" The disease in the lungs was extensive. It was not on this account that I was consulted, but for the affection of the face. With this she had been troubled for four years, and for the last two had been confined to her bed from the severity of the pain. She complains of pain in the left half of the tongue, in the gums, and inside of the cheek of the same side, and in the whole of the left side of the face, particularly about the chin, where the inferior maxillary nerve issues; sometimes it extends as far as the left ear and eyebrow. The pain is so violent as to cause her to shed tears, and at

times to shout so loudly as to be heard in the street. It comes on in paroxysms, and occasionally she has them every five minutes. There is a great flow of saliva. She has had four teeth extracted, and taken much medicine, without deriving any benefit. The bowels are irregular in their action, but the appetite is tolerably good. I saw her in some of the paroxysms, and it was a truly pitiable sight to see her, suffering so intensely as she evidently did. For the last two years she had not had a respite from pain for more than two or three hours at a time.

“ I consulted you about this case, and although you agreed in considering it of an unpromising nature, you prescribed frictions with the Tincture of Aconite over the seat of the pain, as the Aconitine could not at the time be obtained in sufficient quantity for continued use.

“ I accordingly commenced with applying a saturated Tincture of Aconite (prepared by digesting the dried root of the *Aconitum Napellus* in an equal weight of rectified spirit of wine) to the tongue, gums, inside of the cheek, and the whole of the left side of the face. The friction produced a tingling sensation in all the parts where it had been applied, with decided remission of the pain; and when it returned, she was ordered to repeat the friction, and continue it until tingling was induced. Five drops of the tincture were directed to be taken in water every three hours.

This treatment was continued until the 18th, when she was perfectly free from pain and slept well. In a few days the pulmonary symptoms increased in severity, and at last she sank under them.

CASES OF TIC-DOULOUREUX BY MR. SKEY, ONE OF THE SURGEONS OF ST. BARTHOLOMEW'S HOSPITAL.

Extracted from the Medical Gazette of Nov. 5, 1836.

“My friend and neighbour Mr. Spry, a well-known member of our profession, has suffered from repeated attacks of acute neuralgia since the year 1827, which occupied the region of the lower jaw on the right side. The pain, which was occasionally intense, originated from the mental foramen of that side, and thence extended in various directions along the track of the mental nerve. When the attack was somewhat more than usually severe, the pain shot outwards towards the mastoid process, but never originated in that region. It was at any time excited by gentle friction of the hand, or by a current of cold air. Previous to the year 1835 he had employed most actively the remedies usually resorted to by professional men, with occasional, but only temporary, mitigation. During the early part of the year 1835 he consulted a medical gentleman of considerable experience in the treatment of similar affections, who recommended him that of counter-irritation. In consequence, he commenced

the application of leeches, about a dozen at a time, which were repeated at intervals of two or three days. In this manner he applied, in succession, about six or seven dozen. This plan was prosecuted by the use of blisters, of which he applied many, and these were succeeded by an ointment composed of deuto-ioduret of mercury. The effect of these remedies, as regards the face, was great tenderness and excoriation, and a remitting pain was converted into an unremitting one; as regards the disease, it was undiminished. I saw him after this plan was relinquished in a paroxysm of pain, and at my recommendation he took two scruple doses of the muriate of ammonia. The first dose relieved his pain in a very considerable degree; to use his own expression, 'in a greater degree than any medicine he had ever taken.' The second dose produced a trifling diminution, while the third was inoperative.

"About the month of August in that year he was recommended to try the effect of the aconitine, five grains of which, obtained at Morson's in Southampton-row, were rubbed down into an ointment with five drachms of cerate. The first application subdued the pain in a partial degree. It was applied in a small quantity by the forefinger over the track of the painful nerve, and was gently rubbed or rather smeared over the surface for half a minute or longer. These applications were made according to the degree of pain—either once or twice in

the day. They were applied during six days only, when the pain ceased entirely : nor has he suffered from relapse to the present hour—a period of fourteen months. He describes the medicine as very powerful, producing a sense of numbness over the jaw, which continued for about twelve or eighteen hours, and during which the functions of the motor nerve were perfectly unaffected—so that the effects were rapid and conclusive. He can now face any wind or temperature with impunity. He informed me that in consequence of the manifest advantages which he had derived from the aconitine, he recommended its use to a lady who, like himself, had been a very severe sufferer from this disease,—that she made the same applications, and with the same result, although she has, I am informed, suffered a slight relapse, from which the same remedy once more relieved her.

“ Richard Hodge, aged forty, a fisherman, of dark swarthy complexion, and apparently of healthy constitution, was admitted into St. Bartholomew's Hospital on September 10.

“ During the last eight years he has been suffering from acute neuralgia of the right side of the face, for the relief of which three molar teeth had been at various times extracted. On the extraction of the first tooth, a portion of alveolar process was fractured, by which the pain, instead of being relieved, was greatly aggravated. His medical adviser ordered

him to be cupped, embrocated, and blistered, from which he derived no benefit. Among a large variety of other medicines which he had taken were dark powders (probably carb. ferri), which produced but little relief, and indeed the whole treatment was inefficient. A surgeon at Scarborough, whither I presume he resorted for his health, extracted two sound teeth, and applied leeches and electricity during four months without benefit. From Scarborough he visited Exeter, where a repetition of the same treatment was threatened, but not carried into execution. During the whole of this period he had had no longer cessation of pain than three or four days in succession; and though he continued to follow his occupation of a fisherman, he was frequently driven on shore by the severity of the pain, for the occasional relief of which he resorted to laudanum.

“His present symptoms are, severe darting and sometimes fixed aching pain, after long continuance, on the right side of the lower jaw, extending as high as about the middle of the face, and including half the nose; pain under the tongue; flashing of light before the right eye when the paroxysms are intense, causing depraved vision. He is rarely free from pain for more than two or three days, and describes a constant gnawing sensation over the affected side of the face; pain exasperated by movement in eating, drinking, or speaking, or by the

application of either extreme of temperature: it often wakes him from sleep. Temperature of each side of the face the same.

“ His constitution is apparently healthy, and he has not been addicted to drink.

“ On the 14th I ordered him the ointment employed in the former cases—

Aconitin. gr. v.; Cerat, ʒvj.

“ Up to the 28th the ointment had been used most sedulously, without producing any perceptible effect either on the skin or upon the nerve.

“ On the 28th some aconitine, obtained from Morson, was used as above, the application of which was followed by the same benefit which attended its use in the former cases. When asked to describe the effect produced by the ointment, he said, ‘It appeared to search out the pain.’ He could not bear its use more than once a day, as his face swelled after its application. He likewise said it produced a numbness of his face for some time after. He applied the ointment about eight days, and from this period to the 11th of October he has had no recurrence of actual pain: on this day he left the hospital in good health and spirits, suffering only occasional twitchings, which he declares ‘are not worth mentioning.’ He used ten grains of the drug.

“ The interest of the cases may be found in the fact that an acro-narcotic poison will cure a local

pain, where every description of depletive and counter-irritant has failed.

“The aconite, if a very expensive medicine, is at least a very powerful one. The drug first employed in the case of Richard Hodge was, I presume, obtained from a French house in London, by which it is imported from M. —, in Paris. However, *it was perfectly useless*; while that which was obtained from Morson was as strikingly efficient.”

CHAPTER IV.

DISEASES OF THE EYES.

IN the first edition of this work I have stated that two cases of Amaurosis combined with Tic-douloureux were cured by the external application of Veratria, and I there suggested that Amaurosis uncombined with Tic-douloureux might probably be removed by the same means. This suggestion I have since prosecuted, and have found the results in general most satisfactory. In the treatment of nervous diseases by means of the alkaloids Veratria, Delphinia and Aconitine, I had observed that, when changed alternately every three or four days, the electro-stimulation was much more readily kept up, and these diseases more quickly removed than when I confined myself to the use of one alone. The same rule I found it necessary to follow in my experiments on Amaurosis or Gutta Serena. In a previous part of this work I have stated that inflammation depends upon a diseased state of the nerves, and that it is removed by the electro-stimulation of these alkaloids inducing in the nerves a healthy action, and thereby displacing the diseased state. On considering inflammatory diseases of the Eyes, such as Iritis and Internal Ophthalmy, I conceived that the inflammation depended upon a diseased state of the nerves of the eye, and might

consequently be removed by the means which my experience had proved to be so useful in inflammation of other parts of the body. To ascertain the correctness of this idea I applied the three alkaloids in these inflammations of the eye, and found them as readily subdued as inflammation of other parts. Observing further, that when these alkaloids had been applied to a part which was thickened or indurated, the electro-stimulation excited the nerves and roused the absorbents, and thereby removed the thickening or induration, I was led to infer that in those diseases of the Eye where there was thickening or induration, as in Opacities of the Cornea or in Capsular Cataracts, the same remedies applied near to the eye by their electro-stimulation would act upon the nerves of the eye and cause absorption of the thickening or induration. This expectation was fully confirmed by experiment. I tried these alkaloids likewise in Lenticular Cataract, and found that they restored the vision completely in recent cases, but that in advanced cases they failed in accomplishing a perfect cure. My highly talented friend Mr. Liston, who, for his dexterity, extraordinary rapidity, and success in operating stands unrivalled, having witnessed several cures of Opacities of the Cornea and Capsular Cataracts by these means, suggested that if in addition the Capsule were punctured by a fine needle, a cure would speedily be effected, and the patient saved the risk and danger from inflam-

mation attendant upon extraction. This suggestion I put into execution, and with happy results. These medicines if used after operations upon the eyes, by their electro-stimulation inducing a healthy tone in the nerves of the eyes, will in general prevent the destructive inflammation, which so often follows these operations. * In order that these medicines may prove effective, it is necessary to keep up the electro-stimulation by applying them two or three times a day in the neighbourhood of the eyes. Whilst prosecuting these investigations, I was called, in consultation with Mr. Guthrie, to a gentleman whose sight was affected, and who had had the opinions of several of the most eminent oculists of London; all of whom concurred in giving an unfavourable prognosis. I told Mr. G. that this patient would be much benefited, if not quite cured, by a new plan of treatment for the eyes, with which I had been occupied for some months past, but that it was still in its infancy and not sufficiently matured to be given to the world, and therefore that he could not expect at present to be made acquainted with it, especially after what had occurred respecting my discovery of Aconitine, when I was compelled hastily to publish a work on that subject, in consequence of a statement having appeared in a medical periodical, in which an attempt was made to give to another individual the credit of the discovery, but which the gentleman, when written to, disclaimed in the most handsome

manner. I further stated that I should not disclose the nature of the remedies until I had fully ascertained what they were capable of doing. To this Mr. Guthrie replied, that he approved of my plan, and in the most handsome manner, and without solicitation on my part, proposed to give me a trial in the Royal Westminster Ophthalmic Hospital, which I accepted. The trial was to be upon persons affected with incurable Amaurosis and commenced on the 14th of November, 1836. A few days afterwards I learned to my great astonishment that Mr. Guthrie had delivered a Lecture at the Westminster Hospital, in which he had stated that this trial was going on, and that he had sent the Lecture for publication in three weekly medical periodicals. Immediately upon hearing this, and prior to its being published, I protested to him against this mode of procedure, and stated also that one gentleman had no right to publish the name of another without his consent, and from the information I had received, that I had still greater reason to be dissatisfied, on account of the company with which he had classed me. My name in this trial having been thus prominently brought forward without my knowledge, I hastened to end the trial and give the profession a knowledge of these means, though far from being in so advanced a state as the importance of the discovery demanded, but more particularly as Mr. Guthrie was pleased in his lecture to hold out the threat, that if I did not publish

after a fair and reasonable trial, I should lose my character in the profession; a remark perfectly uncalled for, when directed towards one who had never shown the least reluctance to lay before the profession any principles or discoveries which were calculated to aid it or benefit the community. This menace of Mr. Guthrie's, that the profession would not submit to more than a fair and reasonable trial, whilst in *letter* it leaves me to follow out such trial, in *spirit*, nevertheless, places me in the following predicament, that the profession is to determine when my ideas are fully matured, and that if I do not publish them, however crude and imperfect they may be, as soon as the profession thinks proper, I must forfeit my character in it. It is this mode of procedure, as unphilosophical as arbitrary, which renders medicine vacillating and unfixed in its principles, as medical men, in order not to forfeit their character, are often compelled to publish what they may consider an important discovery, when more enlarged experience would have taught them, that nature and not their favourite medicine had accomplished the removal of the disease, thus disappointing the profession, injuring their medical reputation, and lowering medicine as a science in the estimation of the world. To prevent a similar censure from being applied to myself, I now give to the profession such information only as can be fully depended upon, reserving to myself the determination of the time when the plans, in

which I am engaged for the removal of the varied diseases of so important an organ as the eye, are fitted for publication. One of the diseases to which my attention is particularly directed, is the discovery of a remedy calculated to restore a *Lens* affected with *Cataract*, to its previous healthy condition.

These medicines for the diseases of the eyes, when applied externally, act locally, but more speedily in their removal than when given internally ; as in the latter case their action, being spread over the system generally, is less concentrated upon the local disease and consequently is less effective in their removal. All the cases have been cured by external means alone, no internal medicine whatever having been administered. As the hospital cases alone might not be considered sufficient to enable the profession to form an adequate conception of the powers of these remedies, I have subjoined a few diversified cases from my private practice, and as many of them might appear incredible, I have appended the names and addresses of several of the patients. Many of the hospital patients had the means applied only two or three times, as will be seen from the Report signed by the House Surgeons of the Ophthalmic Hospital. This Report would also have been signed by Mr. Guthrie, had he fulfilled the object of three appointments which he made with me for that purpose, and at which I attended, but on each occasion he waived the sub-

ject without assigning any reason. Previously to this he had stated that he should not publish a report of the cases.

The method of employing these medicines is to change them alternately every three or four days, or whenever they lose their electro-stimulating influence. Any of the applications may be well rubbed upon the forehead for a quarter of an hour once or twice a day. The ointments may be applied by the hand, but for the Embrocations and Tinctures I employ a Friction-Sponge, of which a drawing is given in the Plate. The Friction-Sponge should be well washed before each application, as the resinous state of some of the remedies hardens it, and thereby renders it liable to injure the cuticle. As the formulæ for the different preparations for diseases of the eyes, except for the Tincture of Stavesacre, are the same as those for diseases of the nerves, it is unnecessary to reinsert them.

TINCTURE OF STAVESACRE.

Macerate for seven days one pound of powdered Stavesacre Seeds in two pounds of Rectified Spirits, and filter.

HOSPITAL CASES.

CASES ATTENDED AT THE ROYAL WESTMINSTER
OPHTHALMIC HOSPITAL; TAKEN FROM REPORTS
SIGNED BY THE HOUSE SURGEONS, BURY S. DASENT
AND F. H. BAILLIE, ESQUIRES.

Nov. 14.—James Martin, aged seventy-four, residing at Old Pie Street, Westminster, has suffered from diminution of vision for two weeks. He can see tolerably well with the left eye, but cannot see to read with the right.—Jan. 11. Has left the Hospital for some days past, but when last seen, said he was improved.

Nov. 14.—William Watson, aged fourteen, 6, Dalston Walk Road, came a few times only.

November 16.—John Corbet, aged thirty-five, Leicester, about twelve days ago received a blow on the left eye from a stone, destroying the regularity of the pupil, giving it the appearance of an artificial pupil ruptured from the ciliary ligament. He can distinguish an object with the left eye. He was operated on for a cataract about a year ago in the right eye, which had the appearance of great disease, but he can see light-coloured objects. After four or five applications he discontinued his attendance, because he could not be made an in-

patient, and said he thought that there was some improvement.

Sarah Wood, aged fifty-seven, had the remedy applied a few times only.

Dec. 1.—Francis Pinson, aged sixteen, was admitted at this Hospital, July 25, for congenital cataract in both eyes, but was able (until within six months of his coming to the Hospital) to see to read. He could when he came to the Hospital distinguish light, but could not see objects. Mr. Guthrie performed the operation of breaking up the lens twice in the left eye and once in the right. In the left eye the lens is quite dissolved, but in the right there is a small portion remaining. The patient cannot distinguish light except with the left eye, and glasses are of no benefit. He has in this state been delivered over to Dr. Turnbull. Went out not relieved.

Remarks.—This patient was operated upon by Mr. Guthrie, and was unable to keep his eyelids open for one second; I therefore could not ascertain whether his vision had been benefited or not.

Sarah Edwards only attended a few times.

Dec. 9.—Joseph Swan, aged thirty, of Stafford Street, four months ago lost his sight from exposure to the sun and cold night air. He is quite blind. The pupils are dilated and immoveable. —Dec. 31. This patient is not benefited.

Remarks.—This case, being one of inveterate Amaurosis, was well calculated to show the powers of the remedies, but to effect a cure would most probably have required them to be continued for several months.

Richard Wright, aged seventeen, residing at 7, Noel Street, Berwick Street, Soho, was placed under Dr. Turnbull, on the 14th November, 1836. He has suffered from impaired vision from infancy. He can, with the left eye half shut, see objects tolerably well for a short time at the distance of an arm's length. With the right eye he can distinguish no objects. This patient was regular in his attendance, and the remedy was applied daily to the forehead until the 11th January, 1837, when he could, with the right eye, distinguish pins from needles at a yard's distance and pick them up when thrown upon a table: the vision of the left eye was perfect. No medicine was given internally. This young man had been for five months a patient of the Royal Westminster Ophthalmic Hospital previously to his being placed under my care.

Mr. David Ellis, grocer, aged twenty-seven, from Heathfield, Sussex, was placed under the care of Dr. Turnbull on the 16th of November, 1836. Two years previously he had received a blow from a twig across the left eye whilst he was passing through a wood. This accident caused immediate impairment of the vision, which has gradually got worse, with a great many different-coloured specks, the usual characteristic marks of Amaurosis. The vision that remains is myopic, that is, he can only see at the distance of one inch from his eye. He has undergone various treatment, but without benefit. No internal medicine was given. The remedy was applied to the forehead eight times previously to his departure into the country on the 25th November, 1836, whither he was called by his occupations. The report of his case is, that he can now read at the distance of three inches, distinguish objects at the distance of a yard, and perceive them at five yards. He returned from the country on the 3rd December, and continued in town until the 9th. During this time the application was used seven times, making altogether fifteen applications, when he could read perfectly well, and in fact there is little if any difference between the two eyes.

Charles Eagle, aged thirty, residing at Watford, Herts, was placed under the care of Dr. Turnbull

on the 30th November, 1836. He has from his infancy been subject to weakness of vision. About twelve months ago the right eye was destroyed by a blow. Six weeks ago he had a violent fever, when the left eye became affected with inflammation, which left an ulcer in the cornea, concealing the whole of the pupil. When objects were presented before the eye, he could not tell whether they were present or not. The remedy was applied almost daily to the forehead, and no medicine was given internally. He left the hospital on the 30th December, 1836. Ten days previous to this date he was able to see sufficiently well to lead the blind patients to their different wards, and on the day preceding his discharge from the hospital he could distinguish one side of a shilling from the other.

Alexander M'Pherson, aged forty-five, a pensioner residing at Greenwich Hospital, was placed under the care of Dr. Turnbull on the 5th December, 1836. Four years ago, whilst assisting to extinguish a fire on board a ship, he caught a severe cold, and had an attack of acute rheumatism, when his eyesight became dim. For the last three years and a half the vision of both eyes has been so much affected, that he could only distinguish light from darkness. This patient attended only two and occasionally three times a week, and for ten days previously to being discharged from under my care, on the 16th January, 1837, he was prevented at-

tending from having the influenza. After the remedy had been applied five times, he was able to come alone from Greenwich, and find his way through the crowded streets of London to the Ophthalmic Hospital; and after the eleventh application he could see to pick up a dark glove thrown upon the floor.

This man had been a patient of the Ophthalmic Hospital under Mr. Guthrie previously to coming under my care.

CASES OF AMAUROSIS, CATARACT, &c.

The following cases are selected from my private practice.

CASE 1.

Eleanor M'Cartney, aged forty, an inmate of St. Giles's Workhouse, was attacked seven years ago with palsy of the right side, when perception of light and sound in the right eye and ear was extinguished. There was a constant and profuse flow of tears, and the pupil was immoveable. The treatment commenced on the 19th October 1835, and was continued for three days only. On the first day after the commencement of the treatment there was a great abatement of the flow of tears and she could perceive light and light-coloured objects. On the second day she could see a watch, and direct her hand to it, and distinguish

the palm from the back of the hand. On the third day she could distinguish objects with great facility. There was no further application of the remedy after the third day. On the fifth day she could read a duodecimo prayer-book with ease. On the seventh day the flow of tears ceased, the pupil moved readily, and her sight and hearing were perfect. In January, 1837, this person continued quite well. She is still an inmate of the workhouse, and may be seen on application to the matron, Mrs. Bailey.

CASE 2.

The following case is extracted from the letters of the patient, an extensive West India proprietor.

“March 8th, 1836.—My right eye was first affected with dimness or defect of vision so long ago as the year 1810, and commenced by the deceptious effect of seeing two objects distinctly where there really was but one. This deception of double vision gradually disappeared as the vision of the eye became imperfect. The other eye was not affected until about four or five years ago. The affection of this, like the other, commenced and continued with the double vision, until Dr. Turnbull’s remedy was continued six weeks, when it totally disappeared. The right eye by this time was restored to such a healthy state that I could read Blackwood’s Magazine or the leading article of a newspaper without

glasses, and the smallest print with them. By the way, it may be proper to mention that it was not till July last, 1835, that I ascertained beyond question the nature of the complaint with which I was affected. In that month I applied to an eminent oculist, who after two examinations informed me the complaint was Cataract."

"May 10th, 1836.—I am favoured with your letter of the 3rd inst. intimating that you had heard it reported that the benefit I had derived from your treatment of my eyes had disappeared: the only person with whom I have had any communication on the subject is my friend Mr. —, whom I informed that the remedy was applied to my forehead and temples by friction only, without your having prescribed or administered one grain of medicine, or having confined me to the house, or directed the slightest change in my former habits of living, either as to drink or diet, and that my sight was good enough to read, write, fish, shoot, and to see a pin on the floor at the most distant corner of an ordinary-sized room. What more can or ought a man of sixty-seven years of age wish for in this respect? But if any are sceptical as to your mode of treatment, let them produce a testimony like this of a superior method.

"My dear Sir,

"Yours very faithfully."

"*A. Turnbull, Esq., M.D.*"

CASE 3.

A West Indian proprietor, aged sixty, was forty years ago shot in the left eye, which immediately destroyed all vision, gave the eye the appearance of a small tumour seated in the socket, and paralyzed the upper eyelid so that the lid was turned inwards ; the eyelashes constantly rubbing between the eye and the eyelids, causing a great secretion of mucus and tears from the eye. To prevent the constant irritation arising from the friction of the eyelashes, he was under the necessity of often applying spermaceti ointment to the edges of the lids. About three years after this accident, the right eye was affected with severe internal and external inflammation, of which he has had many attacks, and for which he has consulted the most eminent oculists both in this country and on the Continent, but without effect. I was consulted on the 5th of January, 1836, and the following was the state of the right eye : when the eye was viewed at the distance of a yard, no pupil was visible, in consequence of a very dense layer of opaque substance deposited in and upon the cornea, giving the eye the appearance of being formed of a piece of moist parchment. On a closer inspection of the eye, a very small space of the cornea near the nose was still found uncovered, allowing the pupil to be partly seen and admitting the rays of light. The application of caustic twice a week by the advice of an eminent

oculist, was necessary to prevent this small space from being entirely closed, and thus preserve him from absolute darkness. The surface of the cornea was indented with numerous small ulcers. To enable him to discern an object he was compelled to employ a very large and powerful magnifying glass. The left eye being considered hopeless, no attention was paid to it, but the means which were applied to the forehead by friction only, and with the intention of restoring the right eye, produced a remarkable change in the left; the upper eyelid and lashes resumed their natural position, thus relieving the eye from all irritation and secretion, and the eye itself became nearly of its natural size and appearance. After a fortnight's treatment the pupil of the right eye became visible to a larger extent, and objects became more distinct, and after the treatment had been continued ten weeks longer, all the ulcerations were removed and the dense substance of the cornea absorbed, giving the eye a perfectly healthy appearance. Shortly afterwards he began to drive his carriage through the crowded streets of London. This is one of the cases witnessed by Mr. Liston, and seen both before and after the recovery of the patient.

CASE 4.

The following interesting case was communicated to me by letter from the patient, Dr. Kent, for se-

veral years a physician in extensive practice at Walsall, in Staffordshire, now residing in Harley Street, Cavendish Square.

“ 39, *Duke Street, St. James's,*
April 19, 1836.

“ MY DEAR SIR,

“ Thinking that an outline of the principal features in my case might be perused with advantage by many who take an interest in the success of your efforts, I have subjoined it in as concise a form as justice to the subject would admit. Upon my return from a very cold ride, in a violent storm of snow and sleet, on the evening of the 29th of January, I discovered that the sight of my right eye was gone. In a few hours violent inflammation supervened, and continued several weeks in spite of the most vigorous and energetic treatment, its principal seat being the optic nerve, and subsequently the iris. The inflammation was at length overcome, but vision was not restored, and the irritability in both eyes was so great as to render it absolutely necessary not only to avoid all attempts to use them, but also to exclude them from the light. The sight of the right eye was entirely and as I feared irrecoverably gone, its pupil contracted almost to the size of a pin's point and immoveable. I removed to the country by the advice of the professional friends who had attended me, in the hope that as my general health improved, the irritability would subside, although they gave me no reason to

expect that the organ originally diseased would ever again prove of much use to me. In this opinion a medical gentleman of high celebrity in Oxford coincided, but he strongly recommended me to consult some of the most eminent oculists in the Metropolis. A much esteemed friend having mentioned your success in the treatment of many obstinate and almost inveterate cases, I placed myself under your care on the 2nd of April, and had the satisfaction to find that after the lapse of three or four days, a very considerable alteration was observable in the appearance of the right eye, and that my perception of light and afterwards of objects became more distinct. The improvement has been regularly progressing, and I am now (the 19th of April) able to read with ease with that eye which only three weeks ago could scarce distinguish light from darkness. I may also add, that the irritability which so long annoyed me ceased almost immediately after your first application, and I have not since been troubled with it.

“ I am, my dear Sir,

“ Yours very sincerely and much indebted,

“ BENJAMIN ARCHER KENT, M.D.”

“ *A. Turnbull, Esq., M.D., &c. &c.*”

My talented friend Dr. Kent, whom I saw a few days ago, continues perfectly well: the vision of both eyes is equal.

CASE 5.

A Clergyman of the Established Church, in the county of Norfolk, has for the last seventeen years had in the right eye repeated attacks of Iritis, which nearly destroyed the vision not only of this eye, but also that of the other. About every three months the inflammation has been so great as to compel him to be confined to a dark room, and exclude the eyes from light. During this time many eminent oculists have been consulted without effect. The iris is immoveable and irregularly contracted; he can see the shadows of objects, but not distinguish them. The treatment commenced on the 6th April 1836. In two days from the commencement of the treatment, the pupil became moveable, and seven days afterwards he could read ordinary-sized print. The treatment was continued three weeks longer, when the irritability of both eyes was completely removed, and the sight quite restored, except that objects appeared rather smaller than with the other eye. A letter was received on the 27th August 1836, stating that he had had no return of inflammation, and that his sight continued to improve.

CASE 6.

Mr. R. Smith, compositor, 7, Trafalgar Place East, Hackney Road, came under my care on the

6th May 1836. About eight months ago there appeared in each eye, as if there were a small ball of a greenish hue, of the size of a marble, the edges of which were of a bright yellow colour. This state continued about six weeks, during which time his vision was very confused. These balls were succeeded by a white mist, so that on looking at a printed sheet nothing was discernible but the white paper, and reading was rendered impracticable. Several means were tried without avail. About a fortnight before consulting me, the vision of the right eye was lost, that he could discern no object whatever with it, but with the left he could discern objects as if through a mist. About three days from the commencement of the treatment, light became visible as if through a small aperture near the middle of the eye, which appeared as if the rest of the eye were covered with a dense floating mist. On the fifth day of treatment the left eye lost all appearance of mist, and was restored to perfect vision. It required about three weeks' treatment before the right eye could distinguish letters sufficiently to make out a word. For a fortnight after this the treatment was suspended, but on recommencing it, in two days the vision was almost immediately restored. Previously to this the dense cloud gradually thinned away. At the present date, 1st July, 1836, he can read the smallest print with ease.

CASE 7.

A. Matthew, Esq., aged seventy-seven, from the Lyth, near Ellesmere, Shropshire, had his sight first impaired by a residence in the East Indies from 1779 to 1787, and has never been able to see well since that period. He had an attack of inflammation of the liver two years ago, and has been worse as to his sight from that date. He came to town on the 17th of May, and when first visited by Dr. Turnbull, he could only read a few words by the aid of a large and powerful magnifying glass, and that with much difficulty. An incipient cataract existed in the left eye. The treatment was continued a month, when he could read the smallest print of a newspaper with great ease, and the cataract had disappeared. He began to perceive an amendment in about twelve days from the first application.

CASE 8.

A young Lady was four years ago attacked with acute inflammation of the conjunctivæ of both eyes. They were so irritable that it was frequently necessary to exclude them from light, and when she intended going to a party, a week's seclusion from light and heat was necessary to enable her to enjoy one evening's comfort in society, which was invariably followed by an aggravation of the disease.

Application to reading or needlework added to her sufferings. The eyes could bear free exposure to a cold atmosphere, but the least elevation of temperature produced a fresh attack of acute inflammation, during which there was a great flow of tears. Various eminent oculists had been consulted without effect, and all applications to the eyes were found injurious. When seen by me on the 24th June 1836, innumerable small red vessels extended from the edges of the lids of both eyes, passed over the sclerotic, and terminated in a band of vessels which encircled the edge of the corneæ, and the eyelids were much swollen. This state of the eyes had existed for the last four years, and marred the appearance of a young lady in every other respect of great beauty. The treatment, which consisted of applications to the forehead daily for ten minutes, was continued eighteen days, when all irritation and redness of the eyes were removed, and she could bear exposure to heat without any return of the disease. She returned into the country, and a letter was lately received from her, stating that she could now enter into society without the slightest fear.

CASE 9.

The following case is copied from the letter of the patient.

“ November 28th, 1836.

“ Mrs. ——— presents her compliments to Dr. Turnbull, and having derived so great benefit from his

treatment of her eyes, begs before she leaves town to inclose him a copy of her case, as she cannot help hoping it may be beneficial to others and satisfactory to himself to have one. Mrs. —, about thirty years ago, in consequence of a violent cold and inflammation in the right eye, experienced the vision of that eye to be afterwards indistinct, and this increased to a great degree; and about six months ago, when she had a violent illness, all distinction of objects was lost. After this illness the vision of the left eye also became seriously affected: objects appeared double, and she could not distinguish any person so as to be able to know them. As soon as her health was sufficiently reestablished to enable her to travel, having been alarmed with the idea that the optic nerve was affected, she came up to town and consulted an eminent oculist, who informed her there were cataracts of the capsule in both eyes. She afterwards went to Dr. Turnbull, who gave it as his opinion that there was cataract and amaurosis likewise in both eyes. On the 17th of July she resolved to put herself under the treatment of Dr. Turnbull, and is happy to be able to add, that the success has exceeded her expectations. She continued under the care of Dr. Turnbull upwards of three months. The sight of the left eye is better than it was ten years ago, and she has changed her spectacles for a younger sight than those she had lately been in the habit of using. With the right eye she can now distinguish objects

by bringing them close to the eye, with the left eye closed. Being in ill health and sixty-two years of age, she considers her improvement was in some degree retarded by general debility."

CASE 10.

Hannah Manchester, aged twenty-three, residing at 27, Nottingham-place, New-road, perceived twelve months ago a dimness in the left eye, accompanied with a sense of fulness in the ball of the eye, which has gradually increased. When she looked at a lighted candle it appeared surrounded with the colours of the rainbow. During the whole of this time she suffered much from pain in the left side of the head and singing in the left ear. She could not assign any reason for the defect of vision or pain in the head. When first seen by me on the 8th of August 1836, the pupil was enlarged and moved slightly under the action of a strong light, and the vitreous humour had a greenish tinge. She could not touch a white object held before her. The means were applied to the forehead by friction daily for ten minutes, no medicine being taken internally or anything applied to the eye itself. At the expiration of the treatment, which continued nineteen days, the fulness of the eyeball, the pain of the head, and the singing of the ear were completely removed. The pupil became of its na-

tural size and acted readily, and the vitreous humour lost its greenish hue. She could not only read ordinary-sized but even diamond print, and the eye was restored to a perfectly healthy state.

CASE 11.

Miss ———, the daughter of a surgeon, fell in her infancy and cut the forehead a little above the right eyebrow, the scar of which is very visible. She has had excruciating pains over the right half of the forehead for some years, and for the last thirty she could only with the right eye see the waving of a hand or the reflection from a bright object, but not distinguish either. The pupil is immoveable, and the vitreous humour has a greenish hue. Fifteen years ago she had severe inflammation of the retina of the left eye, and five months ago a second attack, which left such weakness and irritability as to cause light to be disagreeable, and render the continued use of the organ for more than a few minutes exceedingly painful. Goggles were necessary to protect the eyes from light. The pupil is rather irregular. After having been eighteen days under my treatment, which began on the 1st of August 1836, without taking one dose of medicine, the means having been applied to the forehead and nothing to the eyes, the right eye was so far recovered as to distinguish small objects with facility,

and the left had lost all irritability, that goggles were unnecessary and she could see and read without pain or uneasiness. The pupils of both eyes were restored to their natural size and appearance.

CASE 12.

Miss Gatehouse, aged twenty-seven, resident at Devizes, had twenty years ago violent inflammation in both eyes, arising from going out in a cold easterly wind without her bonnet, when the vision was left in the state about to be described. She had been under various eminent oculists without deriving further benefit than the removal of the inflammation. She came under my care on the 29th of August 1836, when the corneæ of both eyes were covered with a layer of white nebulous substance of such density as to prevent the pupils being seen unless very near, and then partially. The left eye did not follow the movements of the other eye, and was turned outwards and the pupil was immoveable. With the right eye very near objects only were distinguishable, but distant ones were enveloped in a thick mist. With the left she was unable to direct her hand to a white object presented to her, and the eye was of no utility. The treatment was continued until the 3rd of October 1836, when the white nebulous substance was much gone from

both eyes, allowing the pupils to be seen at a distance. The left eye followed the movements of the other and lost its squint. The pupil became very moveable, and she touched and distinguished minute objects with great facility. With the right eye she saw objects clearly and read well.

CASE 13.

This case is one of great interest, being that of a young Gentleman born blind and receiving his education from a very talented blind lady, Miss Chambers of Nottingham. From her he has learned Latin, Greek, and mathematics, in which branches he is well versed. He knows by heart the whole of Milton's *Paradise Lost* and half of the *Iliad* in Greek, and has a good knowledge of music.

Mr. William Felix Joseph, aged twenty-two, son of the Rev. W. Joseph, Worksop, Nottinghamshire, was born with cataract in each eye, and had no perception of light until he was seven years of age, when both eyes were twice couched by a celebrated oculist, but sight was only obtained to the extent about to be described. Although the cataracts, which were still visible at the bottom of the eyes, had been removed out of the axis of vision, the inability to see, according to the opinions of several eminent

oculists, depended upon Amaurosis or Gutta Serena, for which the means recommended by them were of no utility. I was consulted on the 30th of September 1836. At this time the upper eyelids were incessantly moving, and from the diminished size of the eyes a very deep hollow was left between the eyebrows and eyelids. The eyes had an involuntary constantly rolling motion; the pupils, small and oval, were almost insensible to light, and rarely visible from their being directed upwards under the upper eyelids. He could see the shadows of objects at the distance of twelve inches, but not at a greater unless they were large, but in neither case could he discern what they were except from the colour, by which he distinguished a rose from a daffodil.

No internal medicine was given, the means consisting only of external applications to the forehead for about a quarter of an hour daily.

The progress of the case is from notes taken by the father.

“ *October 3rd.*—The eyes were fuller, had less of the rolling motion, and several objects were discerned. A feeling of hope now gladdened the face of my son.

“ *4th.*—He inquired as a wagon was passing, why the fore wheel, which he saw for the first time, was less than the hind one.

“ *5th.*—He saw that the flame of a candle was contracted and pointed, whilst before he had only seen an undefined glare of light.

“ 8th.—At the distance of eighteen inches he knew several objects with facility, and pointed out the hands and figures of my watch.

“ 10th.—He saw soldiers on horseback and was pleased with their movements, and observed rows of houses in the streets with their different-sized windows. At Henry the Seventh’s chapel he pointed out the carved stonework from the plain. On one of the London bridges he distinguished different kinds of vehicles, the forms of the balustrades, people passing on the opposite sides, and the movements of the Thames. Whilst playing on an organ he discerned the notes of a sheet of music.

“ 14th.—When bodies, some light- and others dark-coloured, were presented at the same distance from his eyes, he invariably stated that the light-coloured ones were the nearest. The sight of a steam-vessel and the movements of its engine gave him much delight. The red colour of a person’s face was readily pointed out.

“ 17th.—He frequently picked up with ease a pin thrown upon a table, and distinguished the point from the head.

“ 20th.—During the last three days, without once inquiring his way, he walked alone in the evening from Great Wild-street, Drury-lane, to 48, Russell-square.

“ 25th.—The upper eyelids had lost their incessant movement ; the hollows between the eyebrows and lids were greatly filled up ; the eyes had nearly lost

their rolling motion, and the pupils acted readily and were very visible. These observations were all made without glasses.

“ W. JOSEPH, SEN.

“ *October 25th, 1836.*”

January 11th, 1837.—This day a letter was received from the father, giving permission to publish the case and use his name, and stating that the improvement was progressing.

CASE 14.

Miss Palmer, aged twenty-two, from Weymouth, was subject from infancy to frequent attacks of inflammation of the eyes and eyelids, which caused such weakness in the eyes as to prevent their being used for more than a short time. In January 1836, the right eye was accidentally struck with great force, which occasioned great pain for a month, when she found the sight become dim. On the 16th of February following she was exposed to a cold wind, and four days afterwards the right eye was affected with agonizing pain, and felt as if it were constantly whirling very rapidly round, and slight perception of light only was left. Two months afterwards this slight perception of light was lost, and the eye was left in total darkness ; when there constantly appeared in the eye the most brilliant colours, being of a beautiful blue and deep

crimson intermingled with faint yellow and green. At the same time with the right, the left eye became affected with a whirling sensation, but without pain, and the irritability of this eye was so great as to prevent her exposing it to the light for more than one or two seconds, and then only in a room nearly dark, when the carpet appeared to rise like the waves of the sea. When she walked in the open air, which was very rarely, she was led, and obliged to have many folds of linen and dark silk applied over the eye; and when the eyelids were closed, there appeared in the eye a deep crimson ball of the size of a shilling, surrounded by a ring like Saturn's ring, of a faint yellow colour. She underwent various treatment, but without any beneficial result, and consulted me on the 15th September, 1836, when the vision of the right eye, which alone admitted of examination, was lost and pronounced incurable. The left eye was covered with a bandage of many folds of linen and silk, which was removed to examine the eye, when three attempts were made, but she shrank away as if a sharp instrument had been plunged into the eye. On the least attempt to open the eye, it appeared as if the meridian sun were shining upon it. No opinion could therefore be given as to the state of the eye. The bandage was reapplied, as she could not bear to be without it, although the curtains were drawn. The means were used upon the forehead around the bandage. After the application had been continued

five minutes the feelings of irritability were greatly subdued and comfort and relief experienced; but it required to be continued four days before the eye could be seen, when no external inflammation was discoverable. On the 3rd October all bandages and shades were discontinued, the whirling sensation and crimson ball and ring disappeared, and the irritability was gone, allowing the eyelids to be constantly open, and the eye itself exposed to light. Her sight was so far restored that she discerned every object with facility, and read the smallest print for a short time. On the 14th she could read for a considerable time, and on the 24th she left town with the sight perfectly restored, in which state she continued when I heard from her in January, 1837.

CASE 15.

The Sister of a Surgeon in the Army, aged seventeen, had, eight years ago, in both eyes acute inflammation, which arose from having been wet in her feet. After the acute inflammation had been removed, the eyes for the last six years continued in the state about to be described. Several eminent oculists had been consulted and various means used, such as leeches, issues on the temples, a seton at the back of the neck, perpetual blisters behind the ears, solution of lunar caustic dropped into the

eyes, blue vitriol and lunar caustic applied to the eyes, much medicine taken internally, and two operations performed upon each eye.

The following was the state of the eyes and vision on October 22nd, 1836, when she consulted me.

Right eye.—Deposited in the interior of the cornea, extending from its lower part and terminating in a point, existed a dense pearly-coloured substance (albugo), which concealed from view about an eighth of the iris and a sixth of the pupil. There was a greyish white anterior capsular Cataract with white spots arranged like the nave and spokes of a wheel, and in the centre there was a transparent point of the size of a small pin's head. She could not see objects distinctly at a greater distance than from four to eighteen inches, and the eye could not be used in the evening without great uneasiness.

Left eye.—A very dense pearly substance extended from the lower part of the sclerotic over the cornea, concealing from view a third part of the iris and the whole of the pupil, except at the upper part, where there was visible a very small opening like a slit. An opinion as to the internal state of the eye could therefore not be given. On trial, penknives, combs, and other articles were perfectly indistinguishable. No internal medicine was given; the means consisted of applications to the forehead daily for a quarter of an hour.

On the 28th November, 1836, in the left eye the

pearly substance had disappeared, exposing the whole of the pupil except about one sixth. She could see and distinguish objects generally when not very far distant from the eye.

In the right eye, the dense pearly-coloured substance was completely removed from the pupil, and the cataract was entirely gone, except three little dots at the lower part of the eye. She could see objects distinctly at considerable distances, and read and work both during the day and night without pain or inconvenience.

CASE 16.

Edward Bennett, Esq., aged thirty, from Cerne, Dorset, caught cold six weeks ago, whilst riding in an open carriage. Three or four days afterwards he felt very unwell, perceived the right eye to be bloodshot, and the sight to be very dim. He had used very active measures, such as bleeding, blistering, mercury to deep salivation, and other medicines, but without effect. I was consulted on the 16th of January, 1837, when the iris was very muddy and the pupil invisible; the upper eyelid drooped and he could not bear the light. At the distance of a yard he could not distinguish individuals or objects. No internal medicine was given, the means consisting of an application to the fore-

head daily for ten minutes. After the remedy had been applied six times, the iris lost its muddy aspect, showing the pupil to be very irregular, he could bear the light, and read the smallest print. He returned into the country on the following day.

CHAPTER V.

DISEASES OF THE EARS.

No organ of the human body has received so little benefit in the treatment of its diseases as the Ear, although many men of eminence have laboured to unravel its anatomy and pathology. All their endeavours have hitherto terminated in discovering little to relieve the melancholy condition of persons afflicted with disease of so important an organ. The difficulties attending the investigation ought to rouse the profession to renewed trials for the discovery of means adequate to restore the organ to its previous healthy condition, and not to leave this branch of medical science in the hands of empiricism. From the marked beneficial influence I had observed Veratria and the other alkaloids to exert in the removal of diseases of the nerves, such as Paralysis in the face and Deafness, each combined with Neuralgia, I was induced to begin a series of experiments in diseases of the Ears by rubbing Veratria in front and behind the ear, and was pleased to find a decided improvement take place in the hearing of the patients. The secretion of wax became more abundant and healthy, and in cases where it had ceased, recommenced, while at the same time the singing and other unpleasant noises in the ear terminated. Feeling satisfied that I had in my possession means decidedly effective in promoting ab-

sorption through the medium of the nerves, and knowing that deafness often arose from the Eustachian tube being obstructed by enlarged tonsil glands, I applied Veratria externally over these glands, and found it frequently succeed in removing their enlargement and restoring the hearing. Perceiving that the electro-stimulation from the external application of these alkaloids often induced a healthy state of hearing, I was led in some obstinate cases of deafness to attempt to apply the remedy nearer to the seat of the disease. I dissolved a grain of one of the alkaloids in two drachms of rectified spirit, and dropped from three to five drops into the ear. This produced considerable tingling, which continued from three to six hours, and I was gratified to find that the effects of this mode of administering these alkaloids was much more effective than the external application, as the wax was more speedily restored and the noises ceased sooner. When the drops of any one of the alkaloids have been continued a few days, the electro-stimulation begins to diminish: their strength should therefore be increased, or another alkaloid substituted. This rule with respect to the alternate changing of these bodies holds good in the various diseases of the ear. The Veratria produced more uneasiness and discomfort to the individual than the Delphinia; the Aconitine and Tincture of Aconite caused a tingling, succeeded by considerable numbness in the ear.

Observing that the influence of these alkaloids when dropped into the ear was greater than from their external application, when there was an obstruction existing in the Eustachian tube itself, as is frequently the case after scarlet fever and other eruptive diseases, I applied to the extremity of the tube, by means of a camel's hair brush, Delphinia, Aconitine, and Tincture of Aconite, and retained them there for two or three seconds, when all produced heat, tingling, and a disagreeable sensation in the throat, and in addition, the two latter preparations induced numbness. I abstained from using Veratria, as, when put into the mouth, it is exceedingly nauseous. This practice was of equal advantage with the external application. In many cases of obstruction of the Eustachian tube, the sides of the tube are so glued together as not to leave the smallest orifice, rendering it impossible for the air to have free access to the cavity of the tympanum; thus destroying the due balance between the atmosphere and the air contained within the ear, and impeding the motions of the membrana tympani. In such cases I have found the means of no utility. The celebrated Sir A. Cooper, Bart., whose efforts in the promotion of surgical science are beyond all praise, was the first who conceived that a small puncture made in the membrane of the tympanum might enable persons to hear, and has reported four cases of success. It often happens after operations of this kind, that

after a short time the artificial opening closes and the benefit ceases. Many plans for preventing the closure of the opening have been proposed ; one of these is to apply caustic to the membrane, a suggestion not likely to be adopted from the inconveniences of applying it within the ear. To obviate these difficulties I have invented an *Instrument*, which I call an AUREXSECTOR, a drawing of which will be found opposite the title-page. One advantage of this instrument is, that the extent of its penetration into the cavity of the tympanum may be regulated at the will of the operator, as it has a sliding guard, which, when fixed by its screw, prevents the cutting part of the instrument from penetrating further than he wishes, as the end of the guard comes into immediate contact with the membrane of the tympanum. The second advantage of this instrument is, that its extremity being like that of a gouge, by a few turns between the finger and thumb, instead of perforating, it cuts out a circular piece of the membrane, thereby preventing the aperture from being closed.

In *nervous deafness* the loss of hearing depends upon a diminution or loss of nervous power, and in this form of deafness these medicines act more immediately upon the auditory nerves, and by their electro-stimulation restore them to a healthy condition. This is the form of deafness which is by far the most general and hitherto the most intractable, in proof of which I quote from Professor Cooper's

Surgical Dictionary, a work which exhibits a rare combination of unwearied research and impartiality in weighing the conflicting statements of different authors.

“No doubt deafness (and that kind of it which so frequently foils the most skilful men,) often arises from an insensible state of the portio mollis of the auditory nerve, or of the surfaces on which its filaments are spread. This affection is analogous to the amaurosis or gutta serena, in which, though every part of the eye may seem to possess its natural structure, sight is lost, because the rays of light only strike against a paralytic or insensible retina. Mr. Saunders dissected the ears of two deaf patients with the greatest care, but could not discover the least deviation from the natural structure. In the commencement of deafness from a paralytic affection of the auditory nerve, Sir A. Cooper remarked, that the secretion of cerumen was diminished, and when the deafness became worse, was totally suppressed. And another particular symptom of paralysis of the auditory nerve, pointed out by the same author, is the patient's inability to hear the sound of a watch placed between the incisor teeth.

“Mr. Saunders remarks, that all the diseases of the internal ear may be denominated *nervous deafness*; the terms in this sense embracing every disease, the seat of which is in the nerve, or parts containing the nerve. *Nervous deafness* is attended with various complaints in different cases, noises in

the head of sundry kinds, the murmuring of water, the hissing of a boiling kettle, rustling of leaves, blowing of wind, &c. Other patients speak of a beating noise, corresponding with the pulse, and increased by bodily exertion, in the same degree as the action of the heart."

Many cases of nervous and paralytic deafness are curable, and others much benefited by keeping up the electro-stimulation either by external applications daily, or dropping into the ear five drops of one of the subjoined formulæ every day. To prevent the speedy evaporation of the drops, a dossil of lint should be kept in the ear for about an hour. Ear-ache, to which children are very liable, may be removed by rubbing any of the ointments behind and in front of the ear, until the pain is relieved, and repeating them as often as required.

FORMULÆ.

The Ointments and Embrocations of Veratria, Delphinia, and Aconitine are to be used of the same strength as those for Tic-douloureux, and to be rubbed for a quarter of an hour daily.

VERATRIA DROPS.

R_x.—Veratriæ gr. iv.
 Sp. Rect. ʒss.
 Solv.

DELPHINIA DROPS.

R_x.—Delphiniæ gr. iv.
 Sp. Rect. ʒss.
 Solv.

ACONITINE DROPS.

R_x.—Aconitinæ gr. ij.
Sp. Rect ʒss.

Solv.

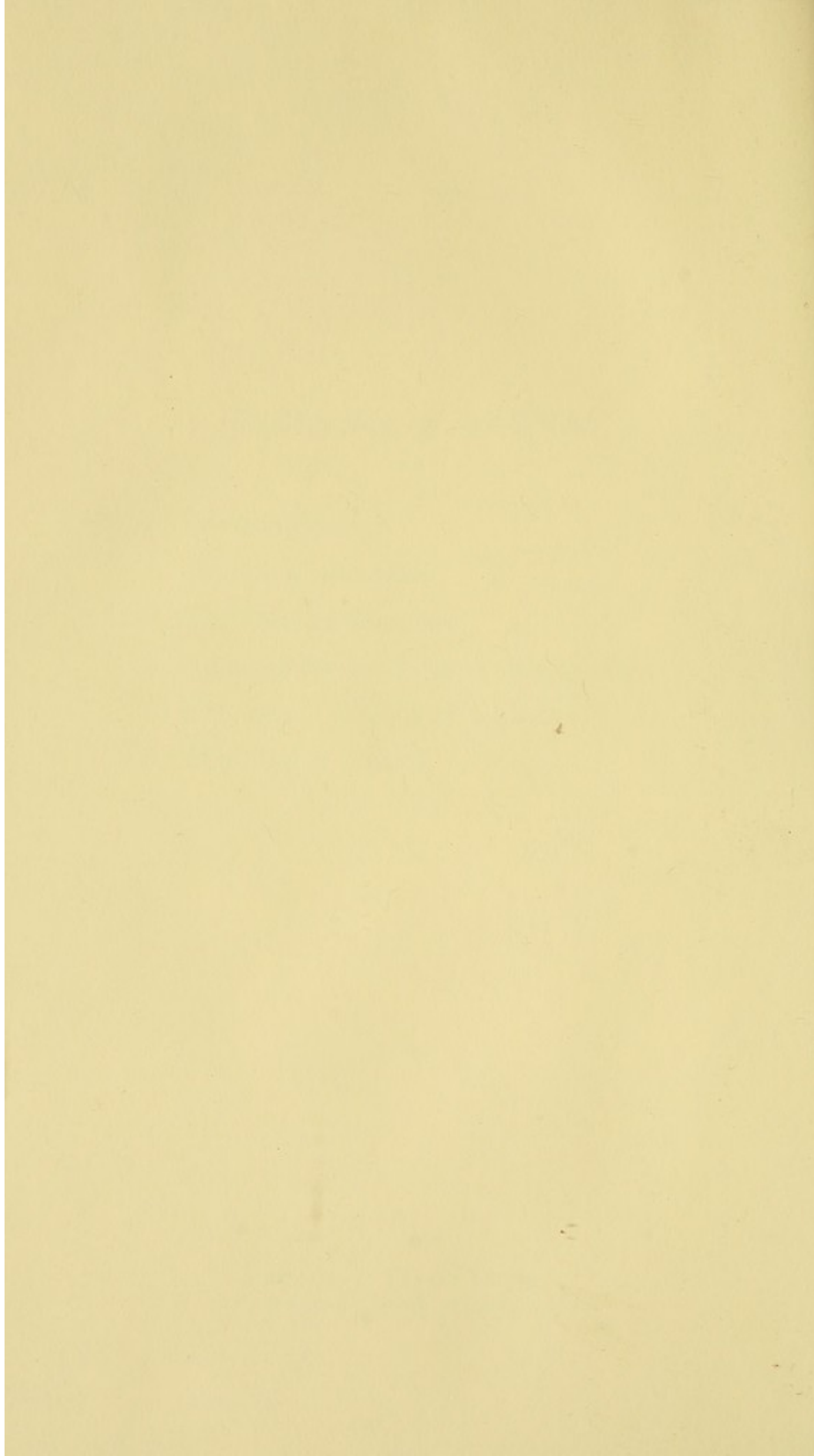
Five of any of these drops are to be dropped into the ear daily.

The Tinctures of Sabadilla, Stavesacre, and Aconite may be used similarly.

THE END.

Explanation of the Plate.

- Fig.* 1. Friction-Sponge.
2. Handle of the same.
3. The Sponge detached.
4. Aurexsector, with its sliding guard.
5. The same, without its guard.
6. The Sliding Guard.



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