ORIGINAL AND ECLECTIC.

ARTICLE XI.

The Remittent Peculiarity of Typhoid Fever in Georgia.
Read before the Medical Society of the State of Georgia, by H. R. Casey, M. D., of Columbia county, Ga.

A communication from the President of the Medical Society of the State of Georgia has been handed me, to which was appended the above caption, stating that I had been appointed to write an essay upon that subject, to be read before the Society at its next annual meeting. I am informed that this appointment was made from the fact that I was the first to present to the notice of the profession cases of Typhoid Fever, of a purely intermittent character. (Vide Southern Med. and Surg. Jour., Dec. 1851.)

From the day that Typhoid fever was first distinctly described, to the time to which allusion is made above, it has been looked upon as a fever of a continued type; and no fever could be called either typhus or typhoid which was not of a continued character.

Louis, who is justly regarded as the first great exponent of the physiology and pathology of Typhoid fever, speaks of it only as a continued fever. Petit, Serres, Andral, Chomel, and the other French authorities, all agree as to the type of the fever; and as this is, strictly speaking, the fever of France, and...
particularly of Paris, its portraiture, as given by those men, should be considered a true and faithful likeness.

And in this country, so far as my reading and my knowledge extends, all the writers concur with the French authorities as to the type of the fever. Gerhard, Jackson, Bartlett, Bell, Austin Flint and G. B. Wood, all agree on this point. Dr. Wood says, "that in the formative stage of the fever, in the first seven or nine days of the disease, before it is yet fully developed, Typhoid fever may, and does, sometimes assume a remittent type."

Now I am not to be understood as attacking the position assumed by writers on Typhoid fever—viz. that it is a fever of a continued type—for my own observation attests the truth of it. I have seen it prevailing as a continued fever; at another time as a remittent; and again as an intermittent.

And this is the sole object of my essay: I wish to divert the minds of the profession from the long established notion that Typhoid fever is necessarily, essentially, and under all circumstances, a continued fever.

I contend, that true and genuine Typhoid fever prevails in Georgia, exhibiting all the other manifestations of the disease, (as laid down in the standard works,) except in the type of the fever proper. We have as true genuine Typhoid fever in Georgia, of an intermittent character, as is exhibited to physicians of Paris in their "continued fever."

The road has been blazed out for diagnosis in Typhoid fever; but who can say he has always, and under all circumstances, found all these blazes apparent? Does he not oftentimes find some of them obscured, or even entirely wanting? Oftentimes we have cases of genuine Typhoid fever; but where are the rose spots? or the sudamina? the tympanites? the diarrhea? or the follicular disease? One patient has a full, strong pulse—another a small corded one; one set of symptoms apparent in one case, and absent in another.

The singular forms of Typhoid fever which have prevailed of late years in different sections of the United States, exhibit to the eye of the medical philosopher the very wide difference of expression it may assume—yea, and I might add, the very singular contrariety of treatment will also furnish theme for contemplation.
Now the ulcerations of Peyer's gland, which are considered _characteristic_ of the disease, and which are held to be the _true test_ of Typhoid fever—even these have been found not to exist in patients who have died of this fever. It is said that Louis once treated a case of what he considered genuine Typhoid fever, judging from all the _life symptoms_: the patient died; a post-mortem was instituted; the ulcerations did not exist. The French philosopher changed his opinion, and declared it could not have been a case of Typhoid fever. The _non-existence_ of _one symptom_, broke up the entire chain of evidence, upon which he had predicated his diagnosis, and instituted his treatment.

M. Andral has clearly shown, in his Clinique Médicale, that patients have perished under a fever marked with all the symptoms of typhoid; and there were no exanthemata—certainly no ulcerations—nor any apparent alteration in any part of the digestive tube, which would explain the cause of death. On the other hand, there are other diseases, such as cholera, scarlatina and phthisis, in which the intestinal mucous follicles are altered.

Nor do I think that _these ulcerations_ should be held as _diagnostic_ of the disease; for we cannot be satisfied of their existence until after death. And here another difficulty may present itself; an autopsy may be denied us.

I contend that we cannot rely on any one isolated feature to establish or deny the existence of Typhoid fever in a given case; but rather upon its entire physiognomy—its _tout ensemble_ of symptoms.

To say that such a case is not typhoid, because the fever remits or intermits, is not good philosophy.

It has been shown in evidence that all the other accredited symptoms of Typhoid fever are subject to modification, and even to change;—then why not the _type_ of the fever?

May not those endemic influences which give origin and peculiarity at certain seasons of the year to our pleurisies and pneumonias, and stamp upon them the impress of _intermittency_—may they not have some agency in changing the type of Typhoid fever? I merely throw out this hint for what it is worth; it may serve as a nut for the "_quinine curer_" to crack.

I shall not stop to account for the why and the wherefore?
I leave that for future investigation. Sufficient for the purposes of this essay, is the promulgation of the fact that Typhoid fever has an existence in Georgia as an intermittent fever.

A case in point presents itself to my recollection. Some few months since my services were demanded. On arriving at the house, I found the patient, a negress some 10 or 12 years of age, ill of fever. After making the necessary examination, I obtained from the owner the following history of the case:—The girl had been sick for a week, with a fever which would rise every day about noon, and continue on through the night; that she would be free of fever most of the morning; was extremely weak; had no appetite; had nothing to say, and complained mostly of pain in the head. She had given her pills and oil, and, when clear of fever, she had given her freely of quinine. From this history, together with the symptoms then apparent, I stated to the owner that the girl had Typhoid fever. If so, this, she said, was the second case in the family—a boy was just getting well, who had been down in bed four weeks with a fever, which the Doctor called an "intermittent fever;" but nothing he gave him had any effect on the fever—it kept on till it seemed to wear out itself after a long time. And such, I stated to her, would in all probability be the case with the girl. She would get well after awhile. I told her to give no more pills, nor oil, nor quinine—bathe her feet nightly in warm water—give her an anodyne afterwards, and to seek rather to control the bowels than to give medicines to move them; and if diarrhoea set in to send for me in haste. Giving such general directions, in regard to diet, regimen, etc., as the case required, I left the patient in charge of her owner. The case, I subsequently learned, went on well: the fever continued some fourteen days longer, when the patient convalesced.

Another case in point, not within my practice, yet within my knowledge: A young lady was under treatment by two respectable physicians, for what they considered a case of intermittent fever. Dose after dose of quinine was administered; and the obstinacy and unyielding character of the fever was by them attributed to some local internal irritation or inflammation. A member of the family, in conversation with me, mentioned the case, and I gave it as my opinion that it was Typhoid
fever. A third physician was subsequently called in, and after a full and fair investigation of the case, he pronounced it Typhoid fever. The attendant physicians yielded their assent: the quinine was discontinued; the young lady's fears quieted on the score of internal inflammation; all medication was withheld, save those of a soothing character; she was put upon a mild but generous diet; the fever kept on its course till it exhausted itself, and the patient convalesced after four weeks confinement to bed.

Now, here we have two well marked cases of a fever of an intermittent type, resisting the ordinary method of treatment, so successfully instituted in the common periodical intermittents of this country.

Is not this one fact of itself sufficient to cause the physician to pause in his career, and ask himself, why is it that I cannot control this fever? Why is it that these fevers are not at all influenced by the great fever controlling quinine? Surely there must be something in the peculiar nature of this fever itself which places it out of the category of the ordinary malarial fevers, over which quinine holds complete dominion. Reason thus, Doctor, with yourself, and your quinine and Typhoid fever will come in and settle the question.

In the number of the Southern Medical and Surgical Journal, for Dec. 1851, will be found my "Contributions to the History of Typhoid fever." By reference to that article it will be seen that I have reported thirty cases of genuine Typhoid fever of an intermittent character, all occurring on the same plantation, and presenting in their history all that is required to constitute true French typhoid disease, save the type of the fever. By reference to those cases, we find them of a purely intermittent character, there being generally a decided intermission of from two to six hours. These were the first cases of Typhoid fever that had ever come under my notice, and I did not hesitate to pronounce them so on my first inspection. Although the type of the fever did not tally with my book authorities, yet I was ready to believe that from climacteric or other influences, the types of fevers might change. In the face, then, of authority, I pronounced my opinion, and subsequent observations have confirmed me in it.
We should have an eye to our cases after the example of the great Sydenham, that we may see not only the character of the fever, as influenced by local causes, but also the nature of the epidemic at different seasons, in order that we may successfully apply those principles of treatment which the peculiar type of the fever requires.

In conclusion, I would add, that the subject of Typhoid fever is worthy of our serious consideration—should attract the attention and elicit the scrutiny of the Southern physician. Fifteen or twenty years since, we scarcely ever heard of Typhoid fever. Bilious fever was then the rank weeds that grew in the pathway of the physician; and with his scythe or cutting knife he went on mowing down the weeds (and oftentimes the patients). It was then that the mercurialist, seeing nought but the liver at fault, and recognizing in calomel the only controlling agent of its morbid actions and vitiated secretions, went on heavily dosing his patients to remove the great offending bile.

The unfortunate patient, in these days, to be cured of bilious fever, was to be subjected to a routine treatment of calomel for the first eight or ten days, and when the system was prostrated by the disease, (or mayhap the treatment,) he was then to be put upon a tonic and stimulating treatment. The lancet and mercury first, and late in the disease wine and barks.

But, happily for the present generation, a light came, (and, if I mistake not, from the city of Augusta,) which entirely revolutionized the treatment of this great Southern scourge. . . A remission in the febrile paroxysm was sought after early in the disease, and obtained by milder and less injurious means, and when obtained, quinine was given, and the fever broken up. Since the introduction of the quinine practice, we have but little bilious fever in this section of the country: the fever is broken up in its incipiency ere it has time to fasten itself upon the patient in a regular remittancy. Thus, an enemy which had annually extended its ravages from the lakes of the North to the reefs of Florida, leaving desolation in its trail, has given up the warfare, and crowned the "Queen of Cinchon" the fair conqueror.

Simple Intermittent fever—in common parlance, chill and fever—then became the prevailing type of fever of the South
and the South-west. The discovery of the febrifuge placed in the hands of the physician a remedy that was positive and certain in its results. There is no problem in mathematics of more certain solution than that quinine will dissolve intermittent fever—to carry out the idea, it is the true solver of this fever.

But, within the past few years, a new form of fever, coming down from the mountains of the Carolinas and Georgia, has appeared amongst us, baffling the skill and setting at nought the treatment of the oldest and most erudite physicians. This fever is now becoming very common in the Southern and South-western States, and, judging from the number of articles that fill the medical periodicals of the South, the profession is laudably engaged in giving and seeking counsel.

If this is to be the fever of this country, we should be active in seeking a knowledge of the disease. Let us study it in all its varied forms, that we may be able to diagnosticate it under whatever form it may assume. It is certainly true, that as yet we know no remedy that has perfect control over this fever. The time is yet to come, (and it may come,) when we can say to the fever, "thus far shalt thou go." The prophecy was made years ago by him who wrote knowingly of Typhoid fever; but the prophecy has not yet been fulfilled. Louis says, "The little success obtained hitherto, ought not to discourage the friends of science and humanity, and induce them to believe that we shall never arrive at a treatment more appropriate to the disease we have been considering. Who could have foreseen the effects of opium, and of cinchona, and the preservative virtue of vaccination? Chance and observation have given rise to these powerful means of preservation. What chance and observation have done, they could do again, and doubtless will do so; and therapeutics, as well as other parts of our science, must expect everything from observation." Such is the language of this profound Frenchman whose anatomical demonstrations gave a "local habitation" to the disease; and such is the opinion of writers of a later date. Dr. Bartlett, in his late work on Typhus and Typhoid fevers, says, "We may hope that our treatment of the disease will yet become more successful and uniform—more exact in its application, and more positive in its results.
Many 'ministers and interpreters of nature,' faithful to their high vocation, and competent to its duties, are zealously and patiently occupied in endeavoring to accomplish this end. Guided by a sound philosophy, relying upon the one great means of ascertaining the properties and relations of all forms of matter, inorganic or organic, that of observation, they, or their successors may yet find, by persevering experiment or fortunate discovery, methods of modifying the living organization, and of correcting its disturbed actions, which shall give us much greater control over the disease than we are now able to exert."

Dr. Norwood thinks he has discovered the great desideratum, and offers to the profession his Veratrum Viride as a controlling agent in Typhoid fever. The Doctor certainly instances cases where his fondling has been used with great success. I have never used it myself in this fever, and therefore cannot give an opinion as to its virtues here. Typhoid fever is certainly one of the most prostrating of our fevers; every symptom indicates great nervous prostration; all the vital forces seem at the lowest ebb; and my experience with veratrum viride is, that it has per se the power of producing in the human economy these same demonstrations. It is certainly one of the most depressing agents of the materia medica—and I have been unwilling to superinduce upon a pre-existing debility, the increased prostration consequent upon the administration of this powerful remedy. And hence I have thought the veratrum more applicable to the treatment of acute inflammatory diseases, than to those of low grade.

I would, en passant, give my testimony to its great virtues as a remedial agent. The thanks of the profession, I think, are due to Dr. Norwood for his valuable discovery; and if future investigations shall establish the fact that veratrum viride is a controlling agent of Typhoid fever, the plaudits of the world shall greet the name and memory of the man through whose agency the fact was established.
ARTICLE XII.

Remarks upon Varicocele, and its Treatment. By Juriah Harriss, M. D., of Augusta, Ga.

It has been the prevailing opinion of the profession, that it is best not to operate upon Varicocele, save in the most urgent cases. Palliative treatment has been the rule, and this rule has been established by the fear of fatal accidents attending the operation. It is only since 1830, that plans for its radical cure have been at all favorably received. Even now, operations are very far from being generally advocated. Most English and American authors are still opposed to operating, whenever it can be avoided.

The principal objection that has been offered is the fear of phlebitis. Certainly this risk should be properly contemplated, and the patient advised of it before operating; but this, like many other dangerous operations, becomes, under certain circumstances, not only advisable, but necessary. Among those who give cautious advice is B. Cooper. Cirsocele, he says, can, for the most part, only be palliated, seldom radically cured. In speaking of tying the veins, he remarks that, the propriety of performing this operation for the cure of varicocele may be justly questioned, unless in certain cases of so much suffering and danger as to warrant this hazard.* The pain is sometimes so unendurable, that many writers, and Gooch among the number, (though previous to 1830,) recommended castration. This shows, at least, the necessity of an operation under certain circumstances, and the improvement of surgery has warranted a more frequent active interference on the part of the surgeon. The danger of phlebitis occurring is certainly exaggerated, and too greatly feared. French authors are far more favorable to the operation than the English, and their practice proves that phlebitis is not so much to be dreaded as generally supposed. The results of the operations of MM. Reynaud, Breschet, Aug. Berard, Velpeau, all go to show this. M. Vidal (de Cassis) says: As for myself, I have operated more than 250 times, (1851,) and in this number there cannot be counted more than five cases of phlebitis.† He adds, that an accident, which

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merited the name of phlebitis, has never happened to those upon whom he adopted his process of operating. I will speak of his method hereafter. M. Malgaigne states that serious accidents very rarely attend operations for varicocele. Such authority induced me to look favorably upon the operation, and seeing that the French were so successful, in spite of many unfavorable circumstances—as bad air, bad food, and bad constitutions—I concluded that the operation would succeed here where we have none of these circumstances to contend with. These were the inducements to operate upon the case which will be presently reported.

Still more authority may be adduced in support of the operation. The success attending M. Ricord's practice is weighty in itself. MM. Monod, Michon, and Nelaton, in their report upon a memoir of Escalier, say, that the surest way to avoid the accidents, which accompany varicocele, is to operate. Pain, pruritus of the scrotum, drawing upon the cord, so as to impede exercise and labour, and fatal inflammation of the enlarged veins, which, according to authors, sometimes occur spontaneously, are all inducements to operate. M. Vidal justly remarks that, many opponents of this operation frequently perform others more dangerous—for lesions less inconvenient and less serious. Sometimes the venous mass, by compressing the artery, may lessen its circulation, and cause atrophy of the testicle, independently of any of its direct pressure of the organ. The vas deferens is sometimes entirely obliterated. Breschet, and his followers, report but one fatal case, and this they attribute to the imprudence of the patient.

Causes.—They are predisposing and active. The predisposing mostly arise from the peculiar position, anatomical arrangement and physiological uses of the parts. The perpendicular position of the veins when the body is erect, making it necessary for the current of blood to overcome the force of gravity, predisposes to varicocele. Their great length is favorable to its development, inasmuch as the weight and dilating force of the column are proportionate to its length. In addition to this, the walls of these veins are very thin, and consequently less resisting than in others. The spermatic veins are deprived

* Malgaigne. Medicine Operatoire.
of valves, and hence the whole column of blood presses upon the walls, and tends constantly to dilate them. The frequent alterations in the amount of blood the veins contain, according to the position of the body, and the indulgence of the passions, are also causes.

The active causes are, abuse of venereal pleasures, masturbation, hence more frequent in the young than the old, horseback exercise, walking, standing, hernia, tumors in the iliac region, faecal matters in the lower portion of the colon and rectum, which press upon the veins.

Morgagni observed that varicocele was more frequent upon the left than the right side, which he attributed to the fact that the left vein, in emptying into the renal vein, formed more of a right angle to the current of blood than did the right, which joined the inferior vena cava. An accumulation of faecal matters in the rectum would press upon the left vein without affecting the right. The left testicle hangs lower than the right, and hence the additional length and size of this vein render it more liable to be affected. Most authors state that varicocele may exist upon one or both sides, separately or simultaneously. Vidal (de Cassis), however, says, that it always exists upon the left.* "This is the most inflexible pathological law with which I am acquainted." He never saw but one case upon the right, and in that instance the heart was upon the right side. I presume M. Vidal intends this as a general rule, not a universal one.

I will say but few words upon the diagnosis, inasmuch as it can only be confounded with hernia. To distinguish varicocele from hernia, it is necessary to place the patient in the horizontal position, when, if the tumor be either it will disappear. But in cases of hernia, if the patient is made to cough, the hernia will re-appear, or an impulse will be felt by the finger applied to the abdominal ring. In varicocele such will not be the case. While in the recumbent posture, if the finger be placed upon the abdominal ring, and the patient requested to stand up, a hernia will not descend, but a varicocele may. These affections may, however, exist together, when the diagnosis necessarily becomes more difficult, and requires greater care on the part of the surgeon.

* Pathologie Externe. Vidal.
Treatment.—This may be palliative or radical. The experience of the profession shows that the palliative treatment is extremely unsatisfactory: even the suspensory bandage but very partially relieves the inconveniences attending varicocele. This is particularly the case with the laboring classes. In the summer season, when perspiration is abundant, the bandage, by increasing the heat of the parts, produces very annoying and troublesome pruritus. The secretion from the scrotum during the existence of this disease is more irritating than in the healthy state, and the bandage but adds to this evil. Indeed, even with the application of the bandage, or truss, more or less blood will accumulate in the enlarged veins, and prove an inconvenience to the patient. In some instances, the pain is by no means alleviated by the use of a bandage, and an operation becomes essentially necessary.

The treatment for a radical cure consists in an operation. The processes for operating in varicocele are very various, but the object to be attained in them all is the arrest of the circulation in the varicosed veins. Excision, compression, and ligation, have all been proposed and advocated. The first two have now but few advocates. Most surgeons seem to prefer the ligation when an operation is deemed necessary. Although surgeons are pretty well united in preferring the ligation, they are very much divided in reference to the process to be adopted. There are those proposed by Paré, Breschet, Velpeau, Berard, Ratier, Reymond, Vidal, Ricord, Pancoast, &c. The processes of Vidal and Ricord are, perhaps, the most simple and approved. That of Pancoast, is but a slight modification of Ricord's plan.

Case. A free mulatto boy, from Atlanta, came to me on the 23d October, 1853, requesting an examination of his testicles, and my advice as to what could be done to rid him of the affection. On inspection, I found his left testicle very pendant and large; the tumour was reducible by pressure, unresisting and compressible, and feeling like so many "earth-worms in a sack." I stated to him the nature of the affection; and upon his informing me that it was very much in his way, and was a very serious inconvenience to him in his daily labor, which was that of a mason, although he wore a suspensory bandage—and that he
wished very much to marry, but could not get his consent so long as he had this uncomely appendage—and, finally, as it had evidently affected his morale, I advised an operation. I explained to him the nature of the operation (for he was very intelligent) and the risks he had to run. He decided on being operated upon the following morning, and insisted that it should be done immediately. With the kind and efficient aid of Drs. Rossignol, Mackie and Barry, I operated upon the 24th. The process I adopted was that of M. Ricord. The bundle of varicose veins was separated from the cord, and a needle, armed with a double ligature, was passed under the veins—a second needle, armed in like manner, was passed above the bundle of veins, through the same cutaneous openings as the first. This was done by letting the veins slip through the fingers, and making the second needle enter the opening of exit of the first, and pass out at the point of entrance made by the first needle. This left a free extremity of one ligature and a loop of the other upon each side. The free ends were passed successively through the loops, and drawn upon. This, of course, formed a subcutaneous ligature of the veins, without including a particle of skin. The free ends were then secured upon small pieces of gum catheter, which completed the operation.

The pain induced by drawing the ligatures around the bundle of veins, lasted some fifteen or twenty minutes, when it passed away, and the patient suffered none afterwards, save a little soreness, which supervened upon the inflammatory action, set up to obliterate the vein.

Dr. Mackie, who had the kindness to attend him during my temporary absence from town, informed me that he had little or no fever during the continuance of the ligature. About six days after the operation I saw him, at which time he had no fever, but the tunica vaginalis of the left side was largely distended with a serous effusion; but little tenderness of the part. We ordered the application of tinct. iodine, which removed the serum in three or four days. Owing to my absence, the ligatures were not removed until the eighteenth day. They could have been removed on the eleventh or twelfth day. During the whole of this time he was kept in bed. When I called to remove the ligature, the patient informed me that he had had,
for some days past, venereal desires—the first for a long time. He was much more cheerful than before, and very grateful. The ligatures were removed without pain, which is one of the beauties of this operation. There was a large lump at the point at which the ligatures had been applied, probably the effusion of coagulable lymph, which blocked up the veins; below this point the veins were empty and felt like mere cords. He was ordered to wear a suspensory bandage for at least a month.

I heard from him a short time since, when he said he felt better than he ever had, and could labor with much more ease to himself, than previously to the operation.

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**ARTICLE XIII.**

*A Case of Non-congenital Talipes Varus.* By L. A. Dugas, M. D., &c.

Having reported in this Journal (March, 1853, p. 142) a case of non-congenital Talipes Equinus, I may be permitted now to publish one of Talipes Varus, also of non-congenital origin.

The subject is a daughter of Wm. S. Campbell, Esq., of Henry county, Ga., who, when eighteen months of age, had an acute attack of illness which left her with a partial paralysis of one of her lower extremities. In attempting to walk the affected foot would turn under the weight of the body, so that after the complete subsidence of paralysis the foot remained in the usual position of confirmed and complete talipes varus. She continued in this state until four years of age, when she was placed under my charge.

On the 11th of January last, I performed the sub-cutaneous section of the Tendo Achillis, and placed the foot in Scarpa's shoe. In a fortnight she was able to place the sole of the foot flat upon the floor; and from that time she rapidly improved under the use of a more simple apparatus, consisting of an ordinary shoe, with steel bands running up alongside of the leg.

This is the third instance of non-congenital club-foot I have seen, and it is somewhat remarkable that they were all different. The first was a case of the kind termed, by Dr. Little, Talipes
Calcaneus—existed in an adult, and was not subject to treatment; the second was one of Talipes Equinus, reported as above stated; and the third, one of Talipes Varus, just described.

Augusta, March, 1854.

Of Inflammation of the Peri-uterine Cellular Tissue, and of Retro-uterine Phlegmon in particular. By F. L. J. Val-"Leix, Physician to the Hospital La Pitié, Paris. [Translated from L'Union Médicale.]

It may be asserted, in a general way, that our knowledge of inflammation of the peri-uterine tissues is very vague. Systematic works on medicine undoubtedly contain cases of these lesions, but they are almost invariably instances of termination by suppuration,—true pelvic abscesses; so that we are led to believe that the tendency to suppuration in this disease is extreme, whereas I shall presently show that a very small minority of cases end in this way. This single fact proves that this affection has not been properly investigated, since only the rarest mode of termination is recognized at all.

Such an opinion is still farther confirmed by the fact that the disease is nowhere described separately. It is only incidentally mentioned in speaking of phlegmonous inflammation of the iliac fossa, of tumours of the pelvis, of inflammation of the broad ligaments, wherefore we may infer that the symptoms peculiar to it have been completely neglected. If, then, I show that it has its proper signs and symptoms, and two principal modes of termination; if, on the other hand, we can diagnosticate it with precision, it will not be doubted that this disease has often been overlooked. I may mention that M. Satis* and Dr. Bennett,† both of whom have furnished us with interesting researches upon uterine inflammations, do not allude to the affection which we are considering. I may add, however, that several English authors have recently treated of pelvecellulitis, but their descriptions are inexact, and inapplicable to the disease which I am about to discuss.

In eighteen months I have observed: 1. 19 cases of retro-uterine phlegmon; but only 11 of these were recorded with the necessary care; 2. 3 cases of ante-uterine inflammation; 3. 1 case in which the inflammation was seated on one side

of the neck; 4. 2 cases in which there was inflammation anteriorly and posteriorly at the same time; in all 25 cases. Of this number, only 17 can be entirely relied upon in making out the history of this affection.

Definition.—I give the name of peri-uterine inflammation to that phlegmasia which occupies the vicinity of the point of junction of the neck and body of the uterus, and only accidentally extends to the broad ligaments. We know that there is a space between the anterior cul-de-sac of the vagina and the corresponding reflexion of the peritoneum, filled with fine cellular tissue, described by anatomists and surgeons, especially by Jobert (de Lamballe,) who has dwelt upon the importance of this arrangement in the operation for vesico vaginal fistula. It is at this point and at a corresponding posterior point that the principal varieties of peri-uterine inflammation have their seat. In one case only have I found an inflammatory tumour upon one side of the uterus without any accompanying disease anteriorly or posteriorly.

The number of cases which I have cited, proves that this affection is quite frequent. Any one can convince himself of this, who, with a knowledge of the symptoms, explores the genital organs in the manner described hereafter.

Causes.—It is as yet impossible to indicate with precision all the causes of peri-uterine inflammation. As facts are accumulated, this knowledge will be supplied.

The age of my patients varied from seventeen to forty-two years. In no instance had the cessation of the menses occurred. This fact is valuable, for it proves that the inflammations we are describing are produced during the period in which the uterus enjoys all its functional activity.

I observed nothing deserving of mention in the constitution or temperament.

Of the 17 carefully recorded cases, 11 related to women with dysmenorrhœa, dependant upon congestion.

In 3 of the 25 cases, the patients laboured under uterine displacement, which had been treated by the uterine redresseur.* I do not place the use of this instrument among the proximate causes, because the inflammation did not arise immediately after the application of the pessary, but many days afterward, the menses having intervened, and no bad symptom having occurred in the interval. The inflammation may be thus explained. On the one hand, we know that the first return of the catamenia after the use of the stem pessary is characterized by increased abundance in the menstrual flow; the san-

* Simpson’s stem pessary, modified by Valleix; commonly called the impaling uterine machine. Translator.
guineous fluctus, then, is greater than usual. On the other hand we shall see that it is particularly during the menstrual epoch that the inflammation we are describing is produced; because undoubtedly, the tissues which surround the uterus are the seat of an hyperæmia, which, when excessive, easily passes into inflammation. We can readily understand, therefore, how the reduction of the uterus, by favoring this hyperæmia, likewise favours the production of inflammation. We must not imagine that the instrument produces this effect by offering direct violence to the uterus or the tissues surrounding it. This may happen in some cases, if the pessary is applied care- lessly, especially if the genital organs are already inflamed; but it did not occur in the cases I have cited.

Lastly, I have seen two cases in which the peri-uterine tissues were painful and swollen, and presented, in a word, all the symptoms of sub-acute inflammation, and in both of which the patients had, at several catamenial periods, acute inflammation of the retro-uterine tissue, of which the pre-existing inflammation was evidently the predisposing cause. The following is a striking example of this:

Case I. A dress-maker, aged 22, entered la Pitié, Ward S. Geneviève, No. 25, in 1852.

Her catamenia appeared at 13, and have always recurred regularly; she became pregnant at 15½, and was safely delivered at term. The following year she miscarried at two months, without any assignable cause. She continued to enjoy good health until her last pregnancy, during which she suffered from prostration and pains in the abdomen and loins. Three months and a half ago her acouchment took place. Everything transpired happily, and the patient left her bed on the sixth day.

Soon after, she suffered pain in walking, with a sense of weight in the rectum and fatigue in the limbs. She had occasional attacks of vomiting, and micturition and defecation were painful; coitus became excessively painful.

Five weeks before she entered la Pitié, she was treated in a neigh- bouring hospital. A blister was applied to the epigastrium, which relieved the vomiting, but the other symptoms were not amended. She only remained a week under treatment.

At the end of that period the catamenia appeared, but instead of lasting only four days as usual, they were protracted, and an abundant hæmorrhage, alternating with profuse leucorrhœa, lasted for twelve days. There were expulsive pains in the rectum, and lancingations in the abdomen. Urination and defecation were accompanied by severe suffering. The appetite disappeared. This condition lasted until the patient entered la Pitié twenty days ago. Her physiognomy expressed suffering, but was not anxious or contracted.

Upon a vaginal examination, we found the neck of the uterus in-
clined forwards, its orifice slightly gaping. The body of the uterus could not be felt by the hand on the abdomen, even when the organ was lifted by the finger in the vagina.

When the finger was carried to the posterior cul-de-sac, it detected a globular tumour, of doughy feel, immovable, and very painful upon pressure. The tumour filled the concavity of the sacrum, and reached along the sides of the uterine neck as though it would embrace it. The tumour was felt compressing the rectum when the finger was introduced into that cavity. The abdomen was yielding, undeformed, painless upon pressure.

The pulse, although feeble and slightly accelerated, was regular. The first sound of the heart was accompanied by a very faint bellows murmur.

I did not wish to use the catheter immediately, for fear of occasioning too much pain, and I prescribed: 10 cups upon the abdomen; cataplasms; emolient vaginal injections containing opium; an opium pill; a laxative enema; repose in bed, and diet.

Two days subsequently the appetite returned. The pain had so much diminished that I was able to introduce an uterine sound. It entered without encountering the slightest obstacle, and while it was in the uterine cavity, the tumour already alluded to was felt distinctly behind the cervix. (*Baths. Repose. Laxatives.*)

Under this treatment the tumour gradually diminished, and the other symptoms disappeared. On the tenth day all spontaneous pain had subsided, but pressure still produced pain. On the fifteenth day there was no pain on pressure, and the tumor was reduced to half its volume.

On the twentieth day its existence could hardly be detected; the strength had returned, and the patient left the hospital.

**Reflections.**—What was the disease from which this woman suffered before she entered the hospital? Was it not an affection altogether similar to that for which she was treated? There is every reason to believe so, for the symptoms were the same. Moreover it is not uncommon to meet with cases of relapse at longer or shorter intervals, so that this case, regarded from that point of view, is not at all exceptional.

The disease appeared at the catamenial period, and there was considerable menorrhagia. There is nothing extraordinary in this, for this affection begins at the menstrual epoch in the great majority of cases, and there was a sub-acute inflammation of the womb, as was shown by direct exploration; now, according to the recent researches of Hérard, metrorrhagia is a common symptom of metritis.

In a single case out of 17, the disease supervened a short time after delivery. Perhaps this may hereafter be found to be a more common cause. It is remarkable, however, that it should apparently have had so little influence in the cases I
have observed, when it is recollected how frequently inflammation attacks the broad ligaments after parturition. We must not confound with these cases those in which inflammation existing primarily in the iliac fossa subsequently invades the cellular tissue around the neck, because, in the latter, there is a simple extension of inflammation.

Inflammation of the uterus and vagina may nevertheless extend to the peri-uterine tissue, and produce the disease which we are considering. I observed an instance of this in a girl of 17, who had contracted a vaginitis. The inflammation attacked the uterus and subsequently the peri-uterine tissue; the extension of the inflammation caused acute pain, and produced a tumour which suppurated.

In one case, the peri-uterine inflammation occurred after excessive indulgence in coition.

In all the other patients, there was no appreciable proximate cause. During the catamenial period severe pains occurred; fever lighted up, and the disease declared itself.

Symptoms.—The symptoms of this affection are very characteristic, and admit of a positive diagnosis. They differ in some respects according to the seat of the disease, which we consequently divide into three principal varieties. The first is retro-uterine phlegmon; the second is ante-uterine phlegmon; and the third is a combination of these two species. In describing the first species I shall make known the symptoms which are common to the three; it will be sufficient afterwards to indicate the peculiarities of the two others.

1. Retro-uterine Phlegmon.—Outset.—Before experiencing the characteristic symptoms of the disease, all of the patients suffered for some hours from malaise and a sense of weight and heat in the rectum. Six out of eleven had a marked chill. In all there was loss of appetite and constipation.

The first symptom of the confirmed disease is pain. Spontaneous pain is a constant symptom; it is always considerable and sometimes excessive. It comes on with violent exacerbations, which are sometimes unendurable, the patients rolling on their beds, contorting their bodies, and uttering cries. They describe the pain differently. Some complain of a sensation of burning, others of a painful throbbing, the majority of a violent lancinating pain. Pain upon pressure is not less constant; it is developed by pressure upon the hypogastrium, by percussion, by vaginal exploration, and especially by the passage of faecal matters through the intestine. Defecation causes acute suffering in the region of the sacrum and anus, and is usually the signal for one of those violent exacerbations already described.
There is one constant and remarkable symptom which deserves especial mention. I refer to the expulsive pains which are felt in the rectum. The patients experience the sensation of a foreign body in the gut, which induces ineffectual contractions, and which depends upon two different causes: upon the pressure of the inflammatory tumour upon the anterior wall of the rectum, and upon the propagation of the inflammation to the coats of the intestine, which is manifested by the expulsion of mucus. These pains, which have been already remarked in retro-uterine haematocoele, are more striking in the disease of which we are speaking, and amount to something characteristic.

By the finger in the vagina, a tumour is discovered behind the neck of the uterus, and separated from it by a deep furrow. When this tumour is very large, it completely effaces the posterior cul-de-sac, as I observed in a case which I shall mention farther on, which terminated in suppuration. The size of this tumour is usually equal to the half of a hen's egg; the angle formed between it and the cervix almost equals in depth the posterior vaginal cul-de-sac. The transverse rugae of the vagina may be felt upon the surface of the tumour, which is immoveable, of soft consistence, but without fluctuation. The contact of the finger at this point gives great pain. We shall find, when we come to speak of the diagnosis, that this state of things so closely simulates retroflexion, as to have often been mistaken for it.

Exploration by the rectum causes great pain, and may usually be dispensed with. It enables the physician to feel a tumour in front of the gut.

When the tumour is of greater size, its surface is smoother, but not so much so as in retro-uterine haematocoele. By one finger in the vagina and another in the rectum its inferior portion may be pressed, and we may judge of the amount of thickening in the recto-vaginal partition in which it is developed. Occasionally, at a certain period of the disease, manifest fluctuation may be detected in this way.

At the same time, the finger in the vagina finds heat, pain, and throbbing in the neck of the uterus; in a word, all the signs of inflammation of that part are manifested. By palpation, with the hand on the hypogastrium, we find that the other peri-uterine tissues, the broad ligaments, etc., are yielding and exempt from inflammation.

A speculum examination is extremely painful and is generally useless. It may show the visible symptoms of inflammation of the cervix, which has already been revealed by other symptoms.
As regards the digestive organs, the symptoms are usually limited to loss of appetite, slight thirst and nausea, and obstinate constipation with the expulsive pains I have already mentioned; or, when the inflammation extends to the rectum, diarrhoea comes on, with tenesmus, and mucous passages similar to those of dysentery.

In two cases, bilious vomiting, continual nausea and slight salivation, were conjoined with the preceding symptoms. The inflammation, in these instances, had evidently spread to the peritoneum, as was shown by the hypogastric tenderness, etc.

There was no derangement of the urinary organs so long as the ante-uterine cellular tissue was not involved.

The pulse was moderately accelerated in the majority of cases; in the two instances in which the neighbouring peritoneum became involved, it rose to 108 and 114, and became small and feeble; in the other cases it was never beyond 90, and preserved its ordinary volume.

The face was always anxious, and, during the exacerbations expressive of the greatest suffering.

The decubitus was usually dorsal, the head being raised and the trunk slightly flexed.

I have never observed any cerebral symptoms.

Such are the symptoms of this disease. In cases in which suppuration is established they are modified, and then rapidly amend when the abscess opens and liberates the confined pus. But I shall return to this point in speaking of the terminations of the disease.

2. Ante-uterine Phlegmon.—As I have already mentioned, I have only observed this inflammation in an isolated form three times. The symptoms peculiar to it are the following: The patients experience acute pain in the hypogastrium with exacerbations. The finger in the vagina finds the posterior cul-de-sac perfectly free and yielding. In the anterior cul-de-sac, on the contrary, it discovers a tension, an unusual resistance caused by inflammation, and not a rounded and circumscribed tumour as in the preceding variety. The condensed nature of the tissue uniting the vaginal wall to the bladder, explains this difference. The lateral limits of this tension cannot be perceived distinctly. Pressure upon the tense parts occasions the most acute pain, and the same result is caused when traction is exercised upon the part by pushing the cervix uteri backwards.

Another constant symptom is the pain caused by the vesical contractions during micturition. Frequent and irresistible desire to urinate also supervenes.
All of the symptoms described under the former variety, except those which have their seat in the rectum, belong equally to this. I have remarked, however, that peritoneal symptoms were more commonly manifested in the ante-uterine variety; because, no doubt, inflammation extends upwards with more facility in the direction in which the tissue is looser.

3. Ante and Retro-uterine Inflammations combined.—This variety does not require a separate description, since a portrait of the disease may be had by adding the symptoms peculiar to each of the other varieties to those which are common to both. It is sufficient, therefore, to mention it. I have seen but two cases of it; in these inflammation appeared first in the parts behind the cervix, and was not developed anteriorly for two or three days.

As to the case in which the inflammation was located on one side of the cervix, inasmuch as the tumour inclined backwards towards the rectum, the symptoms of the first variety predominated.

Progress, Duration and Termination.—The progress of the disease should be studied with the greatest care, for it furnishes matter for the most important considerations. It presents, as I have already repeatedly mentioned, violent exacerbations. These occur even when the inflammation remains limited to the parts posterior to the uterus, and can only be explained, under these circumstances, by the successive invasion of many closely connected portions of the peri-uterine tissue. When inflammation extends to more distant parts, as the lateral or anterior cellular structure, these extensions also occur at intervals, and account for the exacerbations.

These intervals of violent pain and relative calm give this affection a peculiar physiognomy, with which the physician must be well acquainted not to be led into error. The first symptoms are violent, they amend rapidly under treatment, or even disappear altogether, and the physician may imagine that the disease will gradually subside; but it is not so. At the end of eight, ten, or even twenty-four hours, the symptoms returned with increased intensity, and so proceed in an irregular intermittent form for six or eight days. In some cases I have even known this intermittency to resemble periodicity so closely as to induce the attendants to administer sulphate of quinia.

The duration of the affection, when it terminates in resolution, is usually eight or ten days. After this period, however, a painful induration still remains at the part which was inflamed, and the patients should be very prudent. When the disease
terminates in suppuration, the symptoms are more protracted, because several days elapse before the purulent collection forms; after this, a natural or artificial opening into the tumor promptly relieves the patient's sufferings.

The disease ordinarily terminates in resolution. In 25 cases, I have seen suppuration only twice in retro-uterine inflammation, once in ante-uterine inflammation, and once when inflammation occupied both the anterior and posterior cellular tissue; in all, 4 cases out of 25. This is a very important point, for it proves that this disease has been often misunderstood, since it has only been studied in those cases in which it has produced an abscess, and yet it is not less strikingly characterized when it terminates by resolution.

Fluctuation is readily detected only in the retro-uterine variety and in those cases alone of this form in which the tumor projects considerably between the rectal and vaginal walls. In all of the cases which I have observed the pus found its way into the vagina; we can easily conceive, however, that the abscess may open into the rectum. When the tumour opens spontaneously into the vagina, the genital organs are found bathed in pus, but it is usually impossible to discover the orifice by which that liquid escapes, concealed as it is in the folds of the vagina.

In some instances the pus has been evacuated by the bistou-ry, as was done in the following case:

Case II.—Retro-uterine Phlegmon.—Termination by suppuration.

This woman gave birth to her first child on the 21st of February, 1853. Her labor was natural, and only lasted six hours; she was delivered of a male child, at term. Three days afterwards she was attacked by high fever and nervous agitation, and was bled; she got up in nine days.

A fortnight after her confinement, without having had either chill or fever, she was seized with violent pain in the hypogastrium, especially on the right side, with cramps in the limbs; at the same time there was a slight oozing of blood from the vagina. She simply applied cataplasms on the abdomen.

For the last fortnight she has been more sick. She has had pain in the left iliac fossa during her catamenial period; defaecation has become difficult and painful, and she suffers from colics and expulsive pains in the rectum.

May 4th. Upon percussing the hypogastrium, we found dullness for three fingers breadth above the pubis. Upon palpation, the fundus of the uterus was felt to be large and rounded. By the finger in the vagina, it was ascertained that both the body and neck of the uterus were carried slightly forwards. Behind the cervix, which
was patulous, we perceived a fluctuating tumour, which seemed to be a part of the uterus. The posterior cul-de-sac was obliterated. The tumour had a smooth surface, was soft, and very painful on pressure. It descended to the commencement of the middle third of the posterior wall of the vagina. Upon introducing the middle finger into the rectum and the index into the vagina, the tumour could be felt between the two.

The tumour obtruded upon the rectum, and gave rise to tenesmus. The pulse was normal, and the heat of skin was not augmented. (15 leeches to the hypogastrium; emollient enemata with opium; emollient injections; cataplasms)

May 8th. The tumour projects farther into the vagina, and presents fluctuation. The sense of weight in the rectum and the tenesmus continues; the patient passes only a little liquid matter in her stools. There is still pain and resistance upon pressure in the hypogastrium. (Emollient injections and cataplasms; an opium pill; 12 leeches to the hypogastrium.)

May 10th. There is less prominence in the vagina; fluctuation is evident; the pain has diminished. There have been neither chills nor horripilations, but the pulse is somewhat accelerated and the heat of surface is increased.

May 13th. The patient has suffered much less since the leeches were applied. The vaginal wall of the tumour has become very thin.

On the night of the 19th the tumour opened spontaneously, but a very small quantity of pus escaped. The next day I made a large opening with the bistoury, and gave issue to the remainder of the purulent collection.

Four days afterwards the tumour had almost disappeared, and the pain had greatly diminished.

The 25th of June the patient left the hospital perfectly well, with the exception of a slight induration of the recto-vaginal wall.

Reflections.—In this case we have all the symptoms of retro-uterine phlegmon, uncomplicated with peritoneal inflammation. The patient had been delivered two months and a half when she came under my observation. Should we refer the commencement of the retro-uterine inflammation for which she was treated to the period at which she experienced pain in the hypogastrium and cramps in the limbs, two weeks after her confinement? I think not. An inflammation of this sort may have existed at that period, but it must have subsided spontaneously, for the patient was free from pain until the occurrence of the characteristic symptoms which appeared a fortnight before her entrance into the hospital. Most probably there was simple metritis on the first occasion, for, it will be remarked, there were then none of those symptoms about the rectum which give the disease we are considering its peculiar physiognomy.
When the inflammation is located in the parts anterior to the uterus, pus may likewise find its way into the vagina, as I have seen it to do in one instance. I know of no case, however, in which such an abscess has been opened by the knife; for under these circumstances, the tumour is not prominent, and it is difficult to detect fluctuation.

In one instance I have known the abscess to open into the bladder. This accident was announced by frequent desires to urinate, pain after micturition, and the presence of a quantity of foetid, greyish, diffluent pus in the urine.

Lastly, the inflammation sometimes extends to the broad ligaments, and the disease then assumes other symptoms, with which every one is acquainted.

Anatomical Lesions.—As peri-uterine inflammation is not in itself a cause of death, we should be ignorant of its exact morbid anatomy had not the extension of the inflammation, or the rupture of an abscess, occasionally given rise to fatal peritonitis, or some other grave lesion. In such cases there have been found in the reduplication of the vaginal wall and rectum or in the cellular tissue uniting the bladder and uterus, abscesses containing phlegmonous or sanious pus, and the different openings into neighboring cavities to which I have already alluded. It would be useless to enlarge upon this point.

Diagnosis.—The diagnosis of this disease was very difficult before the introduction of the modes of exploration which we now possess. The affection was then only recognized by a few physicians, and by them only in those cases in which an abscess formed. I have myself witnessed many very pardonable errors of diagnosis.

Retro-uterine phlegmon is most likely to be confounded with retro-flexion. A vaginal exploration gives almost identical results in the two cases. In both, the cervix is a little forward, there is a tumor at the posterior and superior portion of the vagina, and a deep sulcus between the cervix and the tumor. The tumor is harder and less painful in retroflexion, it is true, but these are insufficient distinctions. Doubt is immediately removed, however, by the employment of the uterine sound. In retro-uterine phlegmon this instrument readily enters the uterine cavity, and penetrates an inch or more, and the tumour remains immovable. Sometimes the inflammatory swelling is so great that the womb is deviated to the right or left. If, then, there is some difficulty in introducing the sound, it is not necessary to employ force, but the beak of the instrument should be gently inclined to the right and left, and it will presently advance towards one or the other of the iliac fossae.

I have been consulted three times for supposed retroflexions,
which were nothing but inflammations of this sort. In two of them, painful pressure had been employed with a view of reducing the deviation. The mode of exploration which I have described proved the error which had been committed, and the patients recovered under the treatment which I shall presently detail.

The same method of diagnosis will distinguish retro-uterine phlegmon from a tumor of the posterior wall of the uterus, from an ovarian tumor, etc.

Inflammation of the cellular tissue between the cervix and bladder may be mistaken for cystitis. The circumscribed pain and tension in the anterior vaginal cul-de-sac, and the gastric and peritoneal symptoms will suffice to prove the existence of the first of these two affections.

Prognosis.—Notwithstanding the severity of the symptoms, the prognosis is not grave. It only becomes so when inflammation extends to other parts; but then we have another disease. The most favorable point of opening for the abscess is the vagina.

Treatment.—The treatment of these affections may be summed up in a very few words.

General and local blood-letting should be employed in the first instance with considerable energy. I have principally relied upon cups and leeches, and have almost always had to employ them three or four times to combat the exacerbations to which I have alluded. They invariably produce some relief.

The second method consists in the application of very small blisters, dressed with a salt of morphia, (gr. \(\frac{1}{2}\) to gr. j.) I direct them to be renewed as often as they dry up. By calming the pain, they render the progress of the disease more uniform.

Their good effect was manifest in every case.

As adjuvants, we have cataplasmis, hip-baths, emolient and narcotic injections, narcotics internally, ice, Selzer water, and the portion of Rivière* in case of vomiting.

When constipation is obstinate, as it usually is, a laxative should always be administered. It may consist of magnesia, citrate of magnesia, sulphate of soda, etc.

Lastly, diet and the most absolute rest complete this simple treatment by the aid of which the disease almost always terminates by resolution.

*When abscess occurs it may be opened with the bistoury;

*The anti-emetic portion of Rivière consists of: Citric acid, grammes ij., (gr. xi.); Simple syrup, gram. xxv., (§j.); Bi-carbonate of potassa, gram. ij., (gr. xi.); Water, gram. cxx, \(\frac{2}{3}\) ivs. The American measurements are only approximate, but the proportions are observed.—(Taken from the Formulaire des hospitaux de Paris.) Translator.
but this operation should not be attempted unless the tumour projects considerably into the vagina, and fluctuation is unmistakable. When the abscess opens spontaneously, the orifice is sometimes too small to allow of the perfect evacuation of the pus. Under such circumstances the opening should be enlarged by a probe-pointed bistoury, the parts being exposed by a bi-valve speculum. If the spontaneous opening cannot be discovered, a simple puncture should be made, after which the probe-pointed knife may be used as before.

When the pus flows into the vagina, emollient injections should be frequently employed; or if it escapes by the rectum or bladder, it is equally useful to wash out these organs with some emollient liquid.—[Virginia Med. and Surg. Journal.

General Emphysema in Children. By Dr. Roger.

On seven different occasions, I have seen children, who, without any appreciable external cause, without any apparent surgical lesion, without having made any violent muscular effort,* and almost always during the course of some affection of the chest, presented suddenly the following symptoms: A tumour appeared at the lower lateral or anterior part of the neck, without any discolouration of the skin, spreading but not disappearing under the pressure of the hand, and giving an evident sensation of crepitation. This tumour, or rather this prominence, at first less than an inch in diameter, extends whenever the child cries or makes large respiratory movements; it gains the face, puffing up the cellular tissue and completely altering the physiognomy, and descending towards the arms, thorax and abdomen, it involves the whole surface, unless its progress is interrupted by death.

The pathognomonic crepitation tells us at once the nature of the affection. There is evidently emphysema of the areolar tissue, which, originating in some thoracic lesion, has progressed by continuity and contiguity in every direction.

While this infiltration of air is going on, grave functional disorders make their appearance. The respiration, already accelerated by the primary disease, becomes yet more rapid; the pulse becomes extremely frequent and small, and in a few hours, or one or two days at the utmost, the child succumbs to asphyxia, complicated, perhaps, with coma and cyanosis, its body disfigured and monstrously distended.

* M. Velpeau has presented to the Academy of Medicine, in the name of M. Vitali, a case of general emphysema, supervening in a boy while he was struggling to disengage himself from the arms of a play-fellow.—(Arch. Gén. de Med., t. xxi., p. 372.)
What was the cause of this general emphysema in these seven cases? Is it possible to admit a spontaneous gaseous exhalation, a true secretion? or shall we rather suppose that the air-passages were opened at some point and placed in communication with the peripheral areolar tissue? Without denying absolutely the possibility of the development of gas in living parts,* I believe that the emphysema which occurred in these cases is much more naturally explained by supposing some solution of continuity in the air-passages.

This explanation is confirmed by analogy. Emphysema occurs in childhood as well as at other periods of life, from surgical injuries involving the organs of respiration; it is not rare in difficult labours in which the patients strain violently; it has been observed in adults, in cases of rupture of sub-pleural pulmonary emphysema,† or of opening of a tubercular cavity at the apex of the lung into the cellular tissue of the inferior portion of the neck. Dr. Boddand, of Gand, has reported ‡ the case of a young girl of 16, who died from general emphysema, in which was discovered "in the right ventricle of the larynx, a little below the vocal chord, a small round ulcer, perforated in its centre," through which the air had entered the cellular tissue. Dr. Burgraeve has even cited an example of general emphysema consequent upon softening of the stomach with sub-peritoneal rupture of that viscus.

It was in children presenting analogous pathological conditions, that I observed the development of general emphysema. The reader may judge by the following cases, which I will sum up briefly:

Case I. B——, a little girl of two years, had laboured under double pneumonia for several days. One morning I noticed a swelling of the lower part of the cheek with the characteristic crepitus. The emphysema extended to the neck and upper part of the chest, and death occurred in less than forty-eight hours. The application of dry cups over the emphysematous parts gave no relief.

* The development of gas during life is not rare, says Vogel, (Encyc. Anatom., t. ix., Path. Anat., Am. ed., p. 38); it takes place in putrid fevers, in typhus, and gangrene. It is commonly evolved from the animal fluids, especially from the blood, when, before undergoing any chemical decomposition, it is arrested in different parts of the body, and its purification by respiration and secretion is thus impeded; or, when certain secretions, as the bile and urine, are checked, and their constituents remain in the blood. Gaseous products are then developed, which collect in the parenchyma of organs, and in the cellular tissue, constituting emphysema. Authors have also spoken of spontaneous gaseous exhalation after the bite of the rattlesnake; but they do not allude to the infiltration of this gas, (except, perhaps, in the cases of gangrene observed by M. Sigaud; see his work on the Diseases of Brazil.)

† Archives Générales. 1843. T. i., p. 473.
Case II. A boy of three years, affected with a pneumonia following hooping-cough. Emphysema of the neck, thorax, face and abdomen. Death two days afterwards.

Case III. A girl of five years, at Villette; symptoms of broncho-pneumonia. The face and neck were emphysematous when I saw her; high fever and dyspnœa. Death was impending.

Case IV. A boy of four years, of robust frame. Bronchitis; pleurisy of the left side; paroxysms of hooping-cough without sibilus. After three or four days, emphysema was discovered one morning. It occupied the face and neck, subsequently the thorax. M. Roux was called in consultation and proposed punctures, which were not practiced.

Case V. An infant daughter of Madame L——, at Gonesse: double broncho-pneumonia. Emphysema mistaken for anasarca, had extended to the abdomen. I was called in consultation, and arrived when the child was moribund.

Case VI. A little girl of one year, suffering from impetiginous eczema of the scalp, with profuse sero-purulent discharge. On the third day a tumefaction appeared altogether analogous to that which characterizes mumps. High fever came on, and vomiting and a greenish diarrhoea; subsequently there were some convulsive movements, and then emphysema appeared upon the neck and extended to the face and thorax. Death occurred in two days, there having been no diminution in the sero-purulent discharge.

Case VII. Quite recently I was called in consultation by Dr. Ozanam to a child of five years, who had been attacked successively by measles and broncho pneumonia. Dyspnœa and extreme frequency of pulse had supervened, and, at the same time, a superficial emphysema, which was at first circumscribed, but which extended gradually over the trunk as far as the navel. The pneumonia had been treated by Kermes mineral, calomel, aconite, and blisters. I advised numerous punctures, and Dr. Ozanam accordingly inserted a fine trocar a great number of times. This treatment was fortunately successful, and an altogether exceptional cure was obtained. Dr. Ozanam will soon publish the details of this case, which, we believe, is unique.

To the foregoing cases we would add:

1. Three or four similar observations which M. Guersent encountered in his long career, but in which no autopsy was made.

2. A case which is somewhat analogous to those which precede. It relates to a child on whom M. Guersent (the younger) practiced tracheotomy to prevent asphyxia from croup. The air in passing through the opening made in the trachea infiltrated itself into the cellular tissue of the edges of the wound, and, notwithstanding methodical compression, it gained the face and thorax and thence occupied the whole body. The child died in three days.
3. A case published in *L'Union Medicale* (Feb. 8th, 1853), by M. Sandret, of Besançon. In a child affected with hydrophobia, a spontaneous emphysema appeared on the last day of life, and pervaded the whole surface.

Upon examining the facts which I have briefly recapitulated, it will be seen that in every case the patients were affected with some acute disease of the respiratory organs, just as Natalis Guillot observed in the cases which he has reported. In all, the characteristic sub-cutaneous crepitation was first manifested either in the course or in the immediate vicinity of the organs of respiration.

Should we not conclude from these facts, and from the foregoing considerations, that in these young subjects some laceration of the mucous membrane of the trachea, or some rupture of the pulmonary cells and corresponding pleura occurred during a fit of crying or coughing, and that the air passing through this orifice gradually permeated the cellular tissue of the whole body. Such must have been the mechanism of the case of general emphysema which I met in my private practice, although I was not allowed to make an autopsy by which this assertion might be verified.

M. Guillot, more fortunate than I, has proved this fact in the most positive manner by his remarkable researches.

The *prognosis* of general emphysema is extremely grave. With one exception, every case I have seen has rapidly terminated in death. Dr. Ozanam's case proves, however, that death is not inevitable, and that the lesion is not altogether hopeless.

The dilatations of sub-pleural emphysema, when they burst, which is a most rare occurrence, are perforated by an exceedingly minute orifice, as M. Guillot has demonstrated; it is not impossible, therefore, that occlusion may take place almost immediately by means of adhesive inflammation. The perforation once obliterated, (as happens in pneumo-thorax sometimes,) the air infiltrated into the cellular tissue may be absorbed. What we observe in traumatic emphysema of the walls of the thorax, proves that absorption is not very difficult under such circumstances.

As to the treatment of general emphysema, I believe that absorption of the infiltrated air may be promoted by resolvent applications; but it is first necessary to combat the immediate effects of the laceration of the lung, that is to say the progressive permeation of the cellular tissue. Calmatives, opiates, other narcotics, and digitalis, diminish the frequency of the respiration, and consequently the chances of generalization of the emphysema. The little patients will at least be comforted,
and the fatal termination retarded; and it is not impossible that by gaining this delay adhesive inflammation will have time to obliterate the perforation.

I believe, however, that it is perfectly justifiable to evacuate the air by slight incisions, or punctures with a fine trocar, without waiting for an occlusion of which there is only a bare possibility, or for a re-absorption which is a very tedious process. It will be seen (case vii.) that this course was adopted in the only instance in which a cure has been effected.—[Rev. Méd. Chirurg., from Gaz Méd. de Strasbour, and Ibid.

On the Medical properties of Nitrate of Soda. By J. B. Brown, M. D.

This article which in many works on Materia Medica is not even mentioned, seems to be possessed of qualities too valuable to be entirely passed over, or as is done in some books, merely quoted for the purpose of calling its name. As I have made use of this drug with much success in my own practice during the last two years in this country, I deem it a duty to communicate the results to our profession.

The first notice of the physiological action of this salt I found in a medical journal for 1843, in which Dr. Zimmerman published the results of his experiments; it is as follows:

"Nitrate of Soda dissolves the protein element of the blood much less than Nitrate of Potassa, coagulated fibrin being but very little or rather not at all influenced by it, while at the same time it contracts the blood corpuscles much more firmly even to shriveling, and renders the serum redder and richer in hæmatin."

Rademacher, a Physician of Vienna, was probably the first who used this article to any very great extent as a therapeutic agent. As he attributes to it the most extraordinary properties in different diseases, claiming it as a universal remedy and recommending it in the most heterogeneous affections without stating any particular indications for its use. I was induced two years since to make some experiments myself for the purpose of ascertaining whether the medicine possessed the value which its friends had claimed for it. Rademacher thinks that it is more useful in gastric fevers than Nit. Potassæ, which as an active solvent of fibrine, causes a more rapid putrescence, and which in cases where the a priori zymotic tendency is evidently contra-indicated, whilst the Nit. Soda although it restrains the pseudoplasmatic process, does not produce any excessive evacuations.
When given as a gentle laxative this salt is easily borne, but
when given in large quantities it produces fluid passages with
tenesmus. Nevertheless according to my experience with this
remedy in the prevailing diseases of this country such as irri-
tation of the mucous membrane of the intestines and especially
in acute or chronic dysentery, its value can scarcely be surpas-
sed by any other agent of our materia medica. No remedy
has so rapidly succeeded with me in restoring natural passages
and relieving the intense suffering in the worse forms of this
annual complaint, as Nitrate of Soda. Most of my cases, I had
to treat only four or five days, when all the symptoms under
the influence of this specific, if I may use this term, disappeared
entirely. Other cases, in which a cure was not so speedily
brought about, were comparatively rare, and I found this fact
greatly owing to a fault of diet or some other unfavorable cir-
cumstance of the patient. Nevertheless I have been so fortu-
nate, as never to treat any case of dysentery longer than at
most for a fortnight, whilst out of 6 cases I generally restored 5
of them to health, within the above mentioned limited space of
a few days. It is not my purpose to enter into a detail of the
treatment of this disease, but I will confine myself here to a
single remark, that of all the remedies in use against it, there is
no one existing, to my knowledge, safer, quicker and more in-
ocent in its agency, than the one under consideration.

The formula I usually employ is this:

\[
\begin{align*}
&\text{Ol. Amygdal. duc.} & 5\text{iv to vj} \\
&\text{Gum Mimos.} & 5\text{ij to iii}j \\
&\text{Aq. distillat.} & 3\text{iv to vj} \\
&\text{Fiat lege artis emulsio, cui adde} \\
&\text{Sodæ Nitratīs} & } \text{ aa} \\
&\text{Aquæ lauro-Cerasi} & } 3\text{ss} \\
&\text{Syr. Simp.} & 3\text{j}
\end{align*}
\]

M. S.—A table-spoonful to be taken every one to two hours,
after having been well shaken.

For children I prescribe the half or only third part of the
quantity, and I found it an excellent means for overcoming in
their different forms, diarrhœa and dysentery, at least for the
purpose of diminishing the irritability of the bowels, after which
other remedies, according to the indications of the case, might
be made use of.

After the evacuations have become normal, the medicine is to
be continued for one or two days, on account of a great liability
to relapse, which not unfrequently may very disagreeably
surprise both the patient and physician. But this disposition is
owing to the disease itself, as every practitioner will agree, and
not to the specific effect of Nitrate of Soda. In some cases of
the most severe characters I ordered the addition of a few
grains of the Extract of Opium to the former mixture, in order
to allay more rapidly the extremely painful tenesmus and the
nervous excitement in general. I prefer the extract to the
opium in substance, because it has a milder effect, quieting the
system more and not producing that peculiar venous orgasm,
which opium itself does. But I must remark here that
even this milder preparation of opium ought never to be used
for several days in succession for reasons I can not now explain,
being beyond the limits of my present purpose. One of my
patients, who suffered in a dreadful manner, after taking a mix-
ture of brandy with pepper, in order to stop the whole matter
at once, as he thought, had to take the above described portion
four times one after the other; within 7 days he was perfectly
restored.

I have been now in more than a hundred cases of dysentery
so successful, as to restore my patients within the period of from
4 to 14 days at most, under the principal influence of Nitrate of
Soda, never using a single grain of calomel, which I avoid for
fear of salivation and of its consequence, these being often as
bad a complaint as the former, or even still worse. I would
therefore recommend this salt as a very powerful and innocent
substitute for calomel in all the different forms of dysenteric
or congestive diarrhoea and dysentery.

I would mention, en passant, that tonics or astringents are
to be employed, whenever, after the disappearance of the char-
acteristic mucous discharges, a tendency to a diarrhoea from
atony manifests itself, either spontaneously or in consequence

Milk from Spayed Cows. By J. U. Heckerman, Tiffin City,
Ohio.

Except bread alone, there is perhaps no article that enters
so largely into the consumption of man as that of milk. As
food and drink, it is extensively consumed by the adult portion
of our race, it constitutes the exclusive nourishment of nine
tenths of all children under twelve months, and forms the
chief diet of the remaining one tenth.

The chemical and medical properties of milk have long been
made the subject of scientific investigation, and long has the
writer in vain looked for something from the pen of a senior
observer on the point to which he now wishes to direct atten-

It has ever been a desideratum in the rearing of children who
are denied the breast of a mother or nurse, to procure milk
from an animal in which it approaches nearest to that of the human female, and which shall uniformly have the same constituent properties.

In looking over the tables which are given of the constituents of milk, we seldom meet two authors who agree in their observations; indeed so great are the discrepancies, that they only serve to confound us in confusion. This circumstance can be accounted for by the different animals experimented upon, the season of the year, the character of the food afforded and the period of pregnancy or non-pregnancy of the animals at the time of the experiments. Taking the cow, we find that exercise and food, among other things, greatly affect the quality of the milk. The milk of cows kept in the byre contains a larger amount of butyrine than is afforded by animals running at large, while the milk of the latter abounds more in caseine. So great, indeed is the influence of food upon the secretions, that when cows are fed upon bitter or strong smelling grass or herbs, the taste and smell of such grass is imparted to the milk.

Milk, we have already said, forms the chief diet of that unfortunate class of infants, who are reared by dry nursing, and it is estimated that three fourths of these die; indeed, it has been said that, in London, this mortality amounts to seven eighths of the whole number. Be this as it may, we do know the mortality to be very great, sufficiently so at least to demand the earnest attention of every physician.

Standard authors direct children who are thus reared, or who have been early weaned from the breast, to be supported on milk largely diluted by water, and sugar, without, however, any reference to the condition of the animal from which the milk is derived. This we hold to be a serious defect, to be especially so considered, when the remedy is at hand, yet seldom or never used, for lack of information upon the subject.

Lasaigne found that the milk of cows far advanced in pregnancy, contains neither caseine, sugar of milk or lactic acid, but abounded in albumen and uncombined soda; while from the same animal shortly after parturition, the three first named substances were found, and albumen was entirely absent.

It is now the received opinion, that upon the accession of pregnancy a woman should no longer furnish nourishment to a former child, and that such continuance proves detrimental to the health of both parties. These views are confirmed by experience, and by the habits of inferior animals.

If the milk of a pregnant woman afford improper nutriment to a child, surely the same fluid from a cow, in like condition, cannot be proper. Remembering, then, that cows, on the
average, are pregnant three fourths of the whole year, the inference must be that the milk ordinarily derived from these animals is not of a proper character to constitute the diet of infants.

With a view to remedy this universally-existing evil, I would suggest to the profession the propriety of having milk cows spayed, in order to procure milk of a uniform consistency. The act of spaying is performed with facility, and is unattended with danger; the only precaution necessary being, that no food be given for twelve to eighteen hours, and the milk drawn immediately before the operation; the animal becomes kindly disposed, is easily kept, will yield better and a larger amount of milk in a given time, and is with great ease brought into a marketable condition.

The steps of the operation upon the cow are the same as upon the calf or the sow, except that it is important to place her upon the right side, unless the operator be left handed. The best time for operating is about four weeks after parturition, as the future amount of milk will depend upon the quantity given at the time of the operation. For some weeks after, the secretion of milk will be small, but will gradually increase until the amount previously given is furnished, which we have known continue without interruption (of course less in winter than in summer) for the space of ten years.

It is not expected that every father can be circumstanced to keep a cow for the accommodation of his child; but if physicians were to direct the attention of those who do keep cows, to the above facts, it would be found advantageous to keep the spayed instead of the ordinary animal, and the proprietors of milk-furnishing dairies would readily furnish the supply, if the demand was made. The fact above briefly stated, we think of sufficient importance to claim the attention of every medical practitioner, as furnishing him the means of preventing much suffering on the part of advancing infancy, and saving the domestic idol in the circles of many grateful friends.—[West. Lancet.

On Dr. Wehn's Method of Turning. By J. S. Unzicker, M.D., of Cincinnati.

Some years ago I gave a translation of Dr. Wehn's method of turning, in the Western Lancet. It differs from the old way of turning.

1st. By placing the patient on her knees and elbows, until one foot is brought down.

2d. By tying the umbilical cord before it is compressed by the head, and deliver afterwards.
This way of turning is undoubtedly more safe to the child, less painful to the mother, and easier to the operator than the old plan. Of this I am now so well satisfied, that I should consider myself guilty of malpractice, were I to turn again according to the plan as laid down by the books.

I have turned thirteen cases within the last three years, a few of which I will here recite:

Case I. Mrs. A., age 35. At my arrival, the midwife informed me that the patient had been in labor 36 hours, and that about 24 hours ago, the liquor amnii had escaped, and that her pains had been very severe all this time, but that the child would not come down. After a careful examination I found the left shoulder presenting, and prepared for turning by placing the woman on her knees and elbows, when the pains immediately abated. I had no difficulty in finding the feet, but found it very difficult to turn, on account of the tonic contraction of the uterus around the child. By careful manipulation, I at last succeeded in bringing down one foot. I then placed the patient on her back, when the pains immediately returned, bringing down the breech. Then reaching up with my left index finger and gently bringing down the umbilical cord, which was immediately tied, and the head was born ten minutes after. The child is now living, a fine boy two years old.

Case II. Mrs. D., age 23. Found right arm and cord presenting. Liquor amnii had escaped a few minutes before my arrival. Finding the cord yet pulsating, I prepared to turn, but fearing that the cord might get braced, I ligated it immediately, then bringing down one foot, and delivered the child alive.

Case III. Mrs. R., age 33, with narrow pelvis. This person I had delivered twice before unsuccessfully. The first child was born dead, after a severe and tedious labor of 36 hours. The second child I delivered with the forceps, but also dead. When I was called the third time to deliver this person, I determined to try turning, before the patient was debilitated by the severe pains which she had always to suffer before. As soon, therefore, as the os uteri was sufficiently dilated, I turned without difficulty, tied the cord as soon as I could reach it, and delivered the head with the forceps. The child is living and doing well.

Case IV. Mrs. G., age 26, of delicate constitution. Had been in labor 18 hours. Pains very feeble. Breech presentation. Her midwife had given two doses of secalæ cornutum, which had no other effect than producing nausea. I then prescribed

R. Pulv. Rad. Colchici, . . gr. x. \( \frac{1}{3} \) M. in 3 part. Divide.

Elaeosacchar. Cinnamonum, . . gr. xv. \( \frac{1}{3} \) M. in 3 part. Divide.

One of these powders was given every fifteen minutes, when the pains increased, and a living child was born, the umbilical cord having been tied like in the previous cases.

These facts but too clearly prove, (the old theory notwith-
standing,) that the umbilical cord can be successfully tied, before respiration is established. Dr. Wehn's theory regarding it, I have not been able to obtain; but think, myself, that the success of his method may be explained in this way:—As the head enters the pelvis, the cord is but partially compressed, and the circulation of venous blood in the umbilical arteries becomes checked, while the arterial blood through the umbilical vein, continues to be forced towards the child, the brain thereby becoming congested, and the child dies of apoplexy. But if the circulation is entirely cut off by ligating the cord before the head presses upon it, the equilibrium of the brain will be retained, and no such consequences follow.—[Ibid.

**Common Salt in Intermittent Fever.**

We find in the New York Journal of Medicine a report by Dr. J. C. Huchison of 22 cases of Intermittent fever, treated with Chloride of Sodium. The following extracts will show the result:

**RECAPITULATION.**

*Age.*—9 were under ten years of age, 6 between twelve and twenty, 4 between twenty and forty, and 1 at forty.

*Sex.*—7 were males, 12 females, and 1, sex not known.

*Race.*—16 were white, and 4 black.

*Proportion of Cases cured, benefited, &c.*—Of the 22 cases reported in 12, or 54.5 per cent., viz., Nos. 1, 3, 6, 7, 8, 12, 14, 16, 17, 19, 20, 21, the paroxysms were immediately suspended. Nos. 12, 20, 21, occurred in the same patient.

In 3 of the cases, or 13.6 per cent., viz., 5, 9, 18, one paroxysm only occurred after the remedy was commenced. It was completely successful, therefore, in 15 cases, 68.2 per cent. In cases 2, 11, 22, the paroxysms were postponed or moderated. No. 11, it will be remembered, vomited after each dose, so that the salt was not returned in sufficient quantity to have produced any marked anti-periodic effect. For Nos. 2, 4, 13, and 15, the remedy was not prescribed a second time, the patients objecting; an increased dose might have arrested the disease. Case 4 did not take all that was prescribed. In one case only, (No. 10,) after fair trial, was there no obvious good effect from the remedy.

**Permanency of the Cures.**—In three of the patients only, for reasons which have been elsewhere stated, was I enabled to ascertain with any degree of accuracy the permanency of the cures. Cases 12, 20, 21, which occurred in the same patient, had longer intervals of immunity from the disease each time
when checked by the salt, than when quinia had effected the same purpose; and when last heard from, five months had elapsed without a return of the malady. It was said of No. 3, that the disorder did not return so soon as it had previously done when checked by quinia; and of No. 6, it will be remembered, that the patient had not relapsed twelve months after the paroxysms had been checked by nine drachms of the salt, although they had previously returned quite frequently after the use of quinia. So far as the evidence goes, therefore, (which, however, is too limited for a general conclusion,) it indicates the superiority of the chloride of sodium over the usual remedies in the permanency of the cures effected by it. And here we should not lose sight of the favorable influence that may have been exerted by the quinia before the salt was prescribed.

The difficulty of effecting positive cures of intermittent fever by any remedy or course of treatment, however rigidly pursued, is very great, and sometimes impossible, even though prophylactics be continually used, as long as the individual remains exposed to the cause which developed it. The writer can here speak emphatically, because he has, on two different occasions, been compelled to “fly his country,” in order to get rid of this harassing pest. In a number of cases, and among others now distinctly remembered are No. 6 and 7 detailed above, the paroxysms would recur every two or three weeks, notwithstanding quinia with Vallet’s mass and other remedies to relieve the disordered viscera, including counter-irritation over them, were diligently plied.

*Duration of the disease, and general health of the patients.*—In a large proportion of the patients the disease had existed a very long time. Of most of them it is noted, that they had been its victims from six to twelve months. By this it is not to be understood that the disorder then commenced *de novo*, but that it had recurred more regularly and with shorter intervals during that period than previously; for many of them had been its victims for a much longer time, and indeed a few could scarcely remember any period of their lives when they were not from time to time subject to the disease. In four cases (11, 13, 16, 17), the patients never had the disorder before; and in most of them (all but the very recent ones), there was of course more or less impairment of the general health, with visceral obstructions.

*Dose and Mode of Administration.*—The quantity given varied from eight to twelve drachms during the apyrexia. At first, eight drachms were given, but the amount was subsequently increased to nine, ten, and even twelve drachms in one
instance, with obvious benefit. Children required somewhat larger proportional doses than adults.

Mucilage of elm was selected as the vehicle, on account of its convenience, and because it sufficiently disguised the remedy, which was deemed a matter of importance; for it would have lost much of its efficacy, or have been repudiated altogether, had the patients known they were taking simply common salt; as it is well known to physicians that the influence of the mind upon this disease is very considerable. The following was the formula used:

B. Chloridi sodii, . . 3 iij.
Ulmi pulv. . . 3 iij.
Aq. bullientis, . . f 3 viii.

Infuse two hours and strain. This forms a saturated solution. Dose, a table-spoonful every two, three, or four hours, so that five or six doses may be taken during the apyrexia. It was not deemed necessary to precede its employment by evacuants, because the patients had recently used such remedies during their former attacks; and moreover, I preferred to use the salt alone, because its real value could thus be better determined. When it is necessary to precede the use of the salt as an anti-periodic, by emetics or cathartics, perhaps there is nothing better for the purpose, in ordinary cases, than the same remedy administered in emetic doses, which will usually produce also moderate catharsis.

Disturbing Effects.—In most of the cases the remedy was well tolerated by the stomach, nausea or vomiting having occurred in but four (3, 11, 14, 15). Four cases also (2, 3, 15, 17), had moderate alvine evacuations, unattended with pain. There was considerable thirst in every case; no other unpleasant effects. When given in the above manner (dissolving it in as small a quantity of water as possible), it is less likely to disturb the stomach, than the same or even a less amount would in a larger proportion of the solvent. The taste was objected to by some, whilst others disliked it much less than quinia.

Conclusions.—From our experience of the anti-periodic virtues of chloride of sodium as detailed above, we think the following conclusions may be legitimately deduced:

I. Although inferior to cinchona and its preparations, it yet forms a very good substitute for them in intermittent fever, having failed, as we have elsewhere seen, to produce a speedy suspension of the paroxysms in 31.8 per cent. of the cases only: in a majority of cases, therefore, it may be substituted for quinia.

II. It may be used instead of, and indeed preferably to quinia, first, in cases not unfrequently met with, where the latter reme-
dy is forbidden by the very unpleasant nervous and cerebral symptoms it produces, (delirium, tinnitus aurium, cephalalgia, faintness, &c.,) an example of which I have recently seen in the New York hospital, when sulph. copper was substituted. Secondly, where quinia, from frequent repetition, has lost its effect in ague. Thirdly, it is commended on the score of economy, which is a consideration of importance to the poor especially, who are now in a measure debarred from the use of quinia by its high price. And, fourthly, it is always at hand, whilst quinia sometimes cannot be obtained.

III. It has been found to be more energetic in curing ague than any of the vegetable or mineral tonics commonly used for that purpose, excepting bark, and should therefore be preferred to arsenic, which has been ranked by M. Andral, Prof. Wood, and indeed most other authorities, next in value to quinia. And, moreover, I think arsenic should never be used until after quinia and common salt have failed to do good, on account of its unpleasant and sometimes disastrous consequences to the general system and stomach, and the increased facilities affords for using the remedy as a toxicological agent.

Sore Legs.

Dr. H. T. Patterson publishes in the Medical Examiner (March, 1854), an exposé of Spender's method of treating ulcers of the leg by chalk ointment and bandages. After testifying to the practical value of the work of Spender, "On Ulcerous Diseases of the Leg," he proceeds thus to describe the author's principles and treatment:

"Our author cannot say too much in condemnation of the poultice in these cases. It is astonishing how constantly patients apply to one even yet with their legs enveloped in that irritating abomination, a sour bread-and-milk poultice. By surgeons they are much less used than formerly, but still far too frequently. To ulcers of the leg they should never be applied, except to cleanse them when sloughing. The only poultice I have used for years is the simple paste of ground flaxseed, or 'cake meal,' and boiling water. To this may be added a little Liq. Sodae Chlorin., to overcome feaver, or powdered charcoal, or yeast, as a corrective to the sore. With regard to the preparation of the edge in very old sores, I do not think that Mr. S., is sufficiently explicit. Mere compression will not answer in very many cases. In some cases there is a mass of unseparated cuticular deposit which, after softening by a poultice, may be gently separated by the handle of
the scalpel. But in others the cutis itself is thickened, callous, and semi-cartilaginous, often inverted and the ulcer burrowing beneath. The only remedy is its removal, without which cicatrization will not commence. This may be effected by the caustic alkali or the knife. Nitrate of silver will not answer, often making no impression whatever on the indurated mass. The scalpel, however, is always preferable, and should be used freely so as to secure a new and healthy edge. This done, the next thing is to procure incrustation, which Mr. S. proposes to effect by his chalk ointment, the main peculiarity of his practice. His object in this ointment is to have a bland, unirritating, impalpable powder, held together by the smallest quantity of unctuous matter that will permit its being spread and otherwise managed. He employs prepared chalk and fresh lard in the proportion of three or even four parts of the former to one of the latter. The formula which he prefers, and which I have generally adopted, is as follows:

Take of Prepared Chalk, 4 lbs.
Fresh Lard, 1 lb.
Olive Oil, 3 oz.

To the lard and oil, melted together, the chalk should be added gradually, being first rubbed to a fine powder and passed through a sieve. The mass should then be stirred until nearly cold. It may be rendered still smoother by subsequent rubbing in a marble or wedgewood mortar, but this will scarcely be required. It is impossible to prepare the ointment properly by mere trituration without the aid of heat, as I have seen apothecaries attempt. Under all circumstances there will be a slight degree of grittiness, due to the chalk, but not enough to constitute a practical objection. In private practice, however, I have used an ointment prepared with the precipitated carbonate of lime, which is perfectly smooth. The comparative costliness of this substance would be an objection to its adoption in hospital practice, or where, from the size of the sore or the frequency of dressing, the quantity used is very great.

"The ointment is spread, about the thickness of a wafer, upon linen or cotton cloth, and applied over the whole sore, extending some distance beyond its margin. The next step is to apply a tight bandage from the toe to the knee. Mr. S. recommends a roller of calico (muslin) or flannel, two inches wide and six or eight yards long. The flannel he employs only in old and feeble subjects, or where there is much œdema of the limb. The bandage should be applied firmly and smoothly by the surgeon himself. No man can possibly apply a bandage properly to his own limb, and very few nurses, even in Hospitals,
will be found competent to this duty. As the success of the treatment depends very much upon the manner in which the bandage is applied, the only safe plan is for the surgeon to attend to it himself. It should be made to embrace the limb closely, and may be drawn as tight as possible. Occasional reverse turns or folds will be necessary, and it should be fastened firmly with two or three circular turns below the knee. Properly applied it will remain for days and even a week or more. The longer the sore is left undisturbed the better. It should not be opened unless there is pain or fever, or the discharge is sufficient to soil the dressing offensively. At first, the rapid reduction in the size of the limb, from the absorption of serous effusion and even of more solid adventitious deposit, will cause the bandages to slacken and require their more frequent renewal. In many cases, however, I have changed the dressing only once in a week or ten days, and with the best results. The laced stocking I have used in a few cases, as a substitute for the bandage, but it did not answer my purpose. The patient complained much more of inconvenience, and there was a want of uniform compression about the ankle, where it is particularly needed. The elastic stocking of vulcanized caoutchouc, or bas contre les varices, made by Vié, of Paris, and now on sale here, I have employed in several instances with the most satisfactory results. It answers admirably as a preventive of ulcer in varicose limbs, or as a protection after the sore is healed, but it cannot become a substitute for the bandage in the treatment of the sore.

"When this dressing is removed the surface will be found almost universally improved, clean and free from offensive odor. The discharge would seem in a great measure absorbed, and its acrimony neutralized by the chalk. At the same time it will be perceived that a thin layer of chalk has been deposited on the edges of the sore, and sometimes also in patches in the middle. This must not be disturbed on any account, as beneath it is forming the tender new cicatrix. Neither must the limb be wiped or washed. If wet with discharge, it may be dried by a soft cloth gently pressed upon it. A new dressing of the ointment should then be laid upon it, and the bandage reapplied as quickly as possible. With each removal of the dressing the crust will be seen to have encroached still farther upon the surface, until it is finally covered. If found to crack and become irregular, its separation may be assisted gently. The applications (especially the bandage) should be continued for some time after the ulcer is entirely cicatrized.

"This treatment I can from extended experience confidently recommend to my professional brethren. It is applicable to
of the leg in which a varicose condition of the superficial veins constitutes the element of difficulty and delay in the cure, and these will be found (I am satisfied) to be four-fifths of all the cases that occur. Mr. Spender entirely disregarded the usual distinction of ulcers into the indolent and irritable, treating both alike. Some of the very worst irritable sores I have ever seen have yielded at once to the chalk ointment and compression."

On Galvanism as an Obstetric Agent. By Thomas Radford, M.D., F.R.C.P. Ed., F.R.C.S., Eng., Consulting Physician to the Manchester and Salford Lying-In Hospital, etc., etc.

Having been the first to recommend and practically to employ galvanism as an obstetric agent in this country, and having been the first who ever adapted its use to arrest uterine haemorrhage, I confess I was highly gratified to read the very excellent remarks of Dr. Robert Barnes in The Lancet,* which so fully agree with the observations I had formerly made. I was first led to its use during and after parturition by the successful treatment of a case of atony of the urinary bladder, which occurred after a difficult labour.—Vide Provincial Medical and Surgical Journal, 1844, vol. viii. p. 604.

Those who are unacquainted with my opinions on this subject might conclude from Dr. Barnes’s statement—which I am sure he does not mean to be understood—that I have only employed galvanism in cases of "post-partum haemorrhages." This, however, is not so. In my first case it was employed, during the first, second, and third stages of the labour. I will now briefly state the kind of cases in which it has been successfully employed by me.

1st. In cases of tedious labour arising from uterine inertia.
2nd. In cases of accidental haemorrhage, either before or after the rupture of the membranes, and especially when exhaustion from loss of blood exists.
3d. In cases of "placenta prævia," in which, the practice of detaching the placenta is adopted, and the vital powers are greatly depressed.
4th. In cases of internal flooding before or during labour.
5th. In cases of post-partum floodings.
6th. In cases of hour-glass or irregular contraction of the uterus.
7th. To originate, de novo, uterine action, or in cases in which it is desired to induce premature labour.

* January number, p. 23 25.
8th. In cases of abortion, when the indications show the necessity, or justify the expulsion of the ovum.

9th. In cases of asphyxia in infants.

Galvanism is especially advantageous as a general stimulant in all those cases in which the vital powers are extremely depressed from loss of blood. Its beneficial effects are to be observed in the change of the countenance, restoring an animated expression; in its influence on the heart and arteries; in changing the character of respiration; and its warming influence on the general surface. I have several times observed, in cases in which other powerful stimulants have failed to produce any beneficial effects, the most decided advantage accrue after its application.

I have never observed that the child, in utero, has been injured by its use, which gives it a great advantage over the administration of secale cornutum, which, in many cases, is destructive of it. "This drug is liable to great deterioration; its operation is not always certain, its failure depending sometimes, perhaps, on its inert qualities, but frequently on a constitutional idiosyncrasy which resists its powers. There are organic states which forbid its use: when the os uteri is undilated or undilatable, the child being still alive, it ought not to be administered. If in such a case it induces powerful tonic contraction of the uterus, it destroys the child. We cannot control or confine its action, and therefore it is totally unsuitable to cases in which we want only a limited effect. Again, if exhaustion is an element in the case, it is wholly inapplicable, as we ought not to adopt any means which tend further to depress the vital powers. The powerful and sanitary influence of galvanism was most decidedly obtained in the preceding case" (referring to a case to which these remarks were appended) "and the great advantage of this agent is, that its effects may be carried to any degree, from first only exciting the uterus so to contract that its diameters are lessened, and that its tissue comes to be applied to the body of the child. These, however, may be at pleasure increased, so as to accomplish the expulsion of the child and and placenta. The gradual changes produced upon the uterine tissue were admirably seen in the foregoing case, and also its great power developed by its continued application—to arrest the discharge, expel the child and the placenta, and leave the organ safe from the occurrence of post-partum flooding."—Extracted from a case detailed in the proceedings of the local branch of the Provincial Medical and Surgical Association, 1847.

In the above-named case I used the poles externally, and have before this, and ever since adopted this mode of application.—[London Lancet.
Uretroscope.

We recently described an instrument invented by M. Jobert for the purpose of exploring the cavity of the cervix of the uterus. We have now to announce another innovation, which aims at nothing less than the application of the sense of vision to the diagnosis of diseases of the urethra; what with these two improvements, and Helmholtz' speculum for the retina, and other instruments which are no doubt in store for us, few of the internal organs will long remain exempt from our impertinent inspection.

M. Désormeaux's uretroscope was presented to the French Academy on the 29th of November last. In his description of his apparatus, the inventor modestly alludes to the attempts of Ratier and Segalas to solve the problem which he believes that he has mastered, and attributes their want of success to the want of certain optical instruments which have since been invented.

M. Désormeaux overcomes the difficulty of causing a sufficiency of light to traverse a tube of the calibre of the urethra, by employing a mirror with an orifice in its centre, similar to that used by M Léon Foucault for illuminating opaque bodies under the microscope. This mirror is placed upon a prolongation of the axis of a straight catheter or rather canula, adapted for the urethra. A bright light is reflected on this mirror by means of a large reflector, the rays being concentrated by a lens, and it is so inclined as to throw the luminous rays it receives directly into the canula. The observer looks through the orifice in the mirror, and sees the illuminated objects at the extremity of the canula inserted into the urethra.

These are the principles on which the instrument is constructed. The inventor was unwilling to weary the academy by entering into the details of execution, but presented the apparatus itself with drawings illustrative of its application. If these are published we shall take care to have them reproduced for the satisfaction of our readers.

Dr. Désormeaux goes on to mention several cases in which his instrument had been applied. M. Mélier had examined with him a patient affected with stricture about the bulb, and they distinctly saw a transverse septum in part obliterating the canal. At the hôpital du Midi, M. Ricord and many visitors had seen the mucous membrane beyond the canula, and had noted its great redness, indicative of chronic inflammation.

If a piece of printed paper be placed at the extremity of the canula, the light being cut off, the letters can be seen easily by the reflected light; the furrows on the epidermis of the

Not having noticed anything in the medical works of the day, touching the use of the above-named article, in the treatment of spasmodic asthma, I am led to believe it is not in general use. In my hands it has proved more effectual than any, or even all other remedial agents, in the treatment of asthma. Some three years since, I was called to see a severe case of this disease in the person of a young lady of 18. After going through with the articles commonly used in such cases, with but little effect, I accidentally hit upon the use of "plaster of Paris," in mixture, with almost magic-like results. The only thing previous to this, that gave her much relief, was the smoking of stramonium leaves. Since using the plaster, however, she has been constantly improving; in fact, for the last two years or more she has nearly forgotten what formerly alarmed not only herself and friends, but troubled her physicians. I have used this article ever since, with similar results.

About two months since I was called to witness the agony of a little girl of 12 years, lately moved into this vicinity—
more to console her friends than to relieve the sufferer, as they had given up the idea of ever seeing her cured or even made better; for, to use their expression, they had "been to all the doctors, and they didn’t do her any good." She had not been in a recumbent position for a week. I immediately commenced the use of my favorite remedy, with results as before.

The mixture should be prepared similar to lime water, and used freely, diluted in water or milk, on each recurrence of the spasm.

I am in the habit of prescribing for my asthmatic patients, cold sponging about the neck and chest every morning, followed by brisk friction. The modus operandi of this remedy I leave for others to enlarge upon.— *Boston Med. and Surg. Jour.*

*Phrenic Nerve.*

The following are Luschka’s conclusions respecting this nerve:

"1. The phrenic is not merely a motor nerve, but a mixed nerve, containing sensory filaments distributed to the pleura, pericardium, and the peritoneum, covering the diaphragm, and on the anterior wall of the belly. It is also distributed to the coronary and suspensory ligaments of the liver.

"2. It brings about a double interchange of fibres between the sympathetic and spinal nerves, since organic nerve fibres go to it from the inferior and occasionally the middle cervical ganglion, and it gives, by its abdominal portion, fibres to the solar plexus.

"3. In the majority of cases, the phrenic arises but from one cervical nerve—the fourth.

"4. The diaphragmatic branches he traces to the tendinous centre, the inferior vena cava, the right auricle, and the liver.

"5. In its course over the pericardium it appears to be endangered in diseases of the pleura and lungs, especially tubercular. Hence, probably, some of the disturbances of respiration in these complaints."— *Brit. and For. Medico-Chirurg. Review, from Schmidt’s Jahrbuch.*

*Camphor in Erysipelas.*

Dr. C. H. Spoerer endeavors to establish camphor as a specific in erysipelas. His extensive experience in the St. Mary’s Hospital, in St. Petersburg, has convinced him that this remedy has no less effect in erysipelas, than the preparation of Peruvian bark has in intermittent fever, and not only in all grades of exanthematic erysipelas, but also in phlegmonous and consecutive pseudo erysipelas, after surgical operations and lesions. Gastric or violent cerebral symptoms are by no means contraindications, according to S. In the latter, he cautions against
abstractions of blood, and internal antiphlogistic remedies. Also, in erysipelas neonatarum, camphor proved beneficial, with a bath of milk or soap-suds at the same time. The same good effect it had in parotitis, which is connected with erysipelas faciei. S.

prescribes internally from gr. \(\frac{1}{2}\) to 2 grs. every two hours, while externally the parts are occasionally washed with lukewarm water, and covered with linen. In pseudo erysipelas, after lesions and surgical operations, especially in gangrene, also the external application of camphor, vinegar, or spirits of camphor takes place, according to circumstances, with an infus. arnicae, decoc. cart. quercus, \(\text{XV}\). S. derived no benefit from preparations of lead in erysipelas; they proved mostly obnoxious. He denies, according to his observations, that camphor decreases the vitality of the sexual organs.—[\textit{Mediz. Zeitung, Russland's}, and \textit{Ibid}.]

\textbf{The Cholera Fly. By Robert Knox, M.D.}

Public attention has been repeatedly called of late to the sudden appearance of vast swarms of flies, coincident as it would seem with the advent of the Asiatic cholera. As the phenomenon is almost equally interesting, whether it be a mere coincidence, or stand in the important relation of cause and effect, I have ventured to place before the public what I have myself observed in respect of the coincidence. In the absence of any true theory of cholera, speculation becomes legitimate.

I resided in Edinburg when the Asiatic cholera first appeared in Britain. This Eastern plague, for such no doubt it is, started at once from Sunderland, where it first appeared, to the village of Fishrow, situated on the sea-side, a short distance from Edinburgh, one of the healthiest spots imaginable. The devastation it caused here was very great. All this took place during the finest winter weather I ever witnessed.

Lecturing, at the time, to a very numerous class of medical students, I felt anxious for the results, for it could scarcely be hoped for, that the disease would spare the capital of the country. I dreaded the breaking up of the class. It was rumored also that a meeting had been held by the persons connected with the University, at which the question of closing the session, and recommending the students to repair to their homes, had been mooted.

The course I determined on was as follows:—I urged the students to remain perfectly quiet for the present at least, promising that I should address them in a day or two, especially as to the course most advisable to follow under the then exist-
ing trying circumstances. In the mean time I visited Fisherton. It was a Sunday morning, the only day on which I could well leave town. In the village all was quiet as death. My brother, who accompanied me, called on a family to whom he was known. A young man half opened the door; he seemed a stranger, had a bewildered look, and spoke in an undertone, as if afraid to awaken the dead. My brother asked for Mr. T——. "He is dead," was the reply. For Mrs. T——. "She is also dead." For the younger branches of the family; and the reply was, "They are all dead, save one, who is now dying." The plague had swept out the house and left none. I felt for the first time that a plague had entered Europe and Britain, not an ordinary disease, but a desolating plague, and one probably, like its predecessors, beyond all human means to control.

The healthy villages along the high lands of the Marquis of Lothian's estates were next visited: a healthier spot cannot be imagined, but the plague was laying waste three villages, attacking the inmates of detached cottages, and causing general terror. A gentleman who had been my student was surgeon to the district. He was a man of great courage; boldly denying the existence of any peculiarity in the Asiatic cholera, he affirmed it to be no new disease, but merely an aggravated form of the usual autumnal complaint. The local authorities had established a sort of cordon sanitaire around the village, to prevent the egress of the inhabitants. They complained of this to me. My advice was to walk straight up to the constables, who would naturally take to their heels. This is the way I always treat the impertinent interference of impertinent government officials, whose aid sought in moments of alarm is sure to end in mischief. Look at Newcastle. A supine, grasping, grovelling, money-getting magistracy suffer buildings to be erected unfit for human habitations; nay, not only permit the erection of these buildings, but profit by them; adopt no measures to abate the most shameful nuisances; a local and general government, in fact, rigorous in exacting the last farthing of the enormous taxation required to support the crown and aristocracy, but reckless and utterly indifferent to the condition of the people, gradually assist in ruining the physical condition of the place. A plague at last comes, and now a stir is made, not to strike at the root of the evil—the institutions, in fact, of the country—but to fasten on the nation a host of government commissioners, tools. officials, to add to the patronage of the crown and the cabinet, at the expense of a profession, never highly esteemed, and now all but despised. To a town abounding in medical men of the highest abilities, competent, if ever
men were, to meet any difficulty, some government officials are sent, or rather invited (for they would not have been sent unless invited), to point out that which the youngest medical man in Newcastle could easily have pointed out. The plague of cholera, and the terror it excites, is artfully connected with the existence of these nuisances, though not in the slightest degree dependent on or connected therewith. But to return.

On entering the cottages just alluded to, I found the people in great alarm. They were abandoning the sick and dying. By handling them freely, raising them up, and offering them any assistance in my power, I partly convinced the people that there existed no danger from contagion; but on leaving this village, I explained to my young friend, the surgeon, that there was no use in concealing the fact from him—namely, that the plague was in the village, and that we had a disease to combat which had never before been seen in this country.

Having made up my mind as to the circumstances, my advice to my class was very simple—Remain where you are; avoid all excess; dine on a little animal food and a glass of port wine; have no fear; with opium and warmth you may in general arrest any diarrhea; but should a case of disease originate in the house in which you reside, leave it on the instant. I do not recollect of any student having died of the disease.

At the time these sad events were going on, the physicians of the city had each his own theory and his own treatment to propose. Prior to its reaching the capital of Scotland we had at least fifty doctors who pledged themselves to treat it successfully. I urged the authorities to employ the loudest talkers, the largest boasters, not forgetting the sneakers, who, if not called on to come forward, would, when the disease had subsided, show themselves, and declare that had they but been employed the mischief might have been, if not wholly averted, at least greatly mitigated. I rememberd that Thucydides said of the plague of Athens: “When it raged in the city the physicians had no remedy for it; but as it was about to disappear many remedies were discovered.” As men never change, but simply move in circles, the same occurrence has taken place in Britain many times within my own recollection.

The “Suppression of Nuisances Theory,” invented by Dr. MacCulloch, of the Ordnance, and applied by him to the origin of typhus and other fevers, had not then come into vogue. The theory is now fermenting, and may not subside until the country be saddled with a serious expenditure, jobbing and patronage by crown and minister being simply the aim of the parties who now keep up the excitement. I should not be in the least surprised if it ended in the organization of a staff of government
flunkies, whose existence and duties would be tantamount to the destruction of whatever respectability and responsibility still remain in the hands of the medical profession. For this the profession has to thank the corporate bodies with which they have the misfortune to be connected.

Whilst the cholera raged at Fisherrrow and along the highlands separating the valley of the Esk from that of the Tyne, but had not yet appeared seriously in Edinburgh, a lady called my attention to a phenomenon she had never observed before. On the window there stood, dead, two or three flies of a somewhat peculiar form and color, having yellow stripes on the abdominal region; around them, on the glass, was a circle of white, opaque particles, evidently discharged by the fly; the amount of these whitish particles was such that they could be scraped from off the glass, and collected in a paper like any other fine powder. The appearance was new to me, but, extremely occupied with the duties I owed my class, I took no further notice of the matter, recommending the lady to speak to an esteemed friend, the late Mr. MacGillivray, who knew all about natural history matters. He thought the fly peculiar and strange, and the circumstance of its position in death still stranger, but offered no opinion.

The circumstance being mentioned by the lady to an acquaintance, a bold and firm person, without fear, he said he would test the theory by swallowing some of the powder. He accordingly took about half of the quantity deposited on the glass by one fly at bed-time. From three to eight next morning he suffered from an alarming attack of the cholera, which greatly weakened him for a day or two.

But now the cholera left Edinburgh, and, if I rightly remember, Scotland, and no more was heard of it for some time. No new case had appeared for eighteen months, when the lady called my attention to a "cholera fly," as she was pleased to call these flies which died standing on the windows. I assured her that the disease no longer existed in Scotland; but willing to ascertain the fact, I spoke confidently to the late Dr. John Reid, my most esteemed friend and former student and assistant for several years. His position in the hospital enabled him at the time to know well the disease movement in Edinburgh and its neighborhood, and he informed me that although it was thought not advisable to say much on the subject, two cases of unquestionable Asiatic cholera had occurred the day before in Leith, and had proved fatal.

The coincidence of the re-appearance of "the fly" and of cholera took me by surprise. Hitherto the coincidence has never failed. About a week before the appearance of the dis-
ease at Newcastle, I called the attention of some friends in London to the cholera flies which stood dead on the windows; it was easy to foretell its approach. It raged in the north of Europe, and in a few days it fell on Newcastle. I leave the matter in the hands of future observers.

In addition to the phenomenon of dead flies, singly, coinciding with the re-appearance of cholera, public attention has been directed to another phenomenon equally curious; I allude to the vast flights of flies seen to hover over particular towns, in which cholera either has or is about to appear. Respecting this view, the following circumstance came under my own notice; it is the earliest observation perhaps of the kind which has been made in Britain.

During the autumn of the year the cholera attacked the inhabitants of Dumfries, I had repaired to the banks of the Solway, partly for recreation, partly to continue a series of observations on the salmon, commenced long before. My brother accompanied me. On a chill autumn day, with the wind as usual easterly, we examined the banks of the Solway, or mouth of the Annan, easterly, until the ground became troublesome to traverse. At this point my brother became exceedingly unwell, I felt unusually languid, but ascribed the languor and weakness to my old enemy, the east wind. My brother's weakness and illness I could not ascribe to such a cause, for these winds did not affect him. I gave him my arm, and we reached the main road with some difficulty. Here resting for awhile we proceeded, on foot, to Annan, where we had left a horse and gig.

As we neared Annan I remarked, in the extreme distance, seemingly over the town of Dumfries, a vast cloud in motion; it extended from earth to heaven. In one sense it was stationary—that is, it remained on the same place, but every particle of it seemed to be in motion. I called my brother's attention to it, and we agreed that it resembled a cloud of flies.

A secret instinct led me to leave Annan that afternoon, and proceed at once to Lochmaben. The languor and feebleness left us as we receded from the valley of the Solway, and next morning found us in the best health and spirits; but on that day, if my memory be correct, a messenger brought news to Lochmaben that on the previous evening the cholera had rested on the unhappy town of Dumfries, the population of which it decimated.

I leave these observations in the hands of the reader. I myself lean to the theory of M. Schonbein, whom I have the pleasure to call my friend and former student. With a genius peculiarly his own he has offered a new view or theory of
Infusoria in Woman's Milk. By Dr. Vogel.

No general directions can be given as to whether a woman may suckle or not. In every case the question must be determined by an examination of the milk; and here the microscope proves eminently useful. The author found in that milk which produced sickness in the child, and destroyed the health of the mother after prolonged lactation, immediately after its removal from the breast, infusoria similar to those found in the incrustations upon the teeth (vibrio bacillus.) Such vibriones are found especially in women who menstruate or suffer from haemorrhages during this period, the good or bad aspect giving no important indication. The milk has often a fine thick white colour, or is of paler hue; its consistence may be either thick or watery; its re-action is often alkaline, but generally neutral. Under the microscope it exhibits, according to its richness, sometimes but few, at other times many, milk and cream corpuscles; these differ from the corpuscles of healthy milk by their pale yellow colour, their want of metallic lustre, and their speedy decomposition. As regards the infusoria, they are little rod-shaped bodies, dark in the middle, surrounded by a lighter line, but exhibiting neither head nor tail under a magnifying power of 600 diameters; there are, however, feet in great number and of considerable length. The movement of these animalcules was swimming, and occasionally it was very active. Forward movement was worm-like, and an annular structure of four rings was observed. Mostly they twist screw-like, upon their axes. When they swim in a circle, they always move from right to left. The length is $\frac{1}{100}$ mmtr.; their breadth four times less. They are best seen when the milk is diluted with water. In ammonia-diluted acids (even the lactic) they die immediately.

Children fed upon milk containing these infusoria, become sooner or later attacked by diarrhœa, and the evacuations are of a green colour. This condition disappears as soon as healthy cow's milk is substituted. The author believes that this effect does not proceed from the infusoria as such, but from the same cause which produces the infusoria, namely, a process of fer-
mentation in the milk itself. The ferment is, according to him, the congested and increased heat in the breasts, connected with the general excitement of the sexual system.

But a fermentation, as Jul. Clarus observes, cannot be present, because the author always found the milk alkaline or neutral, and never sour. Were there fermentation, the evolution of lactic acid would, upon the author's own showing, have immediately destroyed the infusoria.—[Schmidt's Jahrb, and Ib.


We directed the attention of our readers to this newly described form of disease in our April No. for 1851, (p. 244,) and then related the case of a valued professional brother who had been its victim for a number of years. He has but recently died, after a very short illness of (it is said) congestive fever. No post-mortem examination was made in this case; but the following notice of the researches of the indefatigable Cruveilhier, contained in the British and Foreign Medico-Chirurgical Review, will serve to throw some light upon the subject.—[Ed. S. M. & S. Jour.

M. Aran has described, in the 'Archives Générales,' a form of muscular paralysis, under the term "progressive muscular atrophy;" and M. Thouvenet has described the same lesion under the title "atrophic muscular paralysis." Since 1848, this form has been familiar to M. Cruveilhier; and in the present memoir various cases of it are related. The first case was that of a lady, aged 40, with general paralysis, more marked in the upper than in the lower extremities, and unaccompanied by lesion of sensation, or alteration of intellect. Death ensued by extension of the paralysis to the diaphragm and laryngeal muscles. A profound lesion of the spinal cord was diagnosed, but after death the nervous centres were found to be perfectly healthy. The true nature of the case was not recognized, and M. Cruveilhier, not content with the term "névrose," given to the case by other physicians who witnessed it, accused pathological anatomy of want of power to recognize some lesions of the brain and cord. The second case was that of a man. aged 18, with general paralysis, sensation and the intellectual faculties being unaffected. An affection of the anterior column of the cord was diagnosed, but after death the cord was found perfectly healthy. The muscles were carefully dissected, and were found to be atrophied in two ways—viz., by simple atrophy, and atrophy with fatty degeneration. The state of the nerves was not examined. In the third case there was gradual muscular atrophy and paralysis, with retention of intellect and sensation. In addition to the paralysis there were tremors, or little convulsive shocks, of the muscles of the extremities, as long as the atrophy was
not complete. There was also, occasionally, a kind of general trembling or shivering. Death finally ensued from general bronchitis, and "edematous pneumonia." Many of the muscles were atrophied and in a state of fatty degeneration, exactly resembling, as M. Cruveilhier remarks, the state of the muscles described by Dr. Meryon in the last volume of the 'Medico-Chirurgical Transactions.' M. Mandl, in drawing the microscopic appearances, produced plates precisely similar to those of Dr. Meryon. The brain was perfectly healthy; so also was the spinal cord and the posterior roots of the nerves. But the anterior roots, especially in the cervical region, were found to be greatly diminished in size: in fact, atrophied. This condition was traced till the union of the roots; in the conjoint nerve on the distal side of the ganglion no change could be detected; the trunks forming the brachial plexus, and this plexus itself, were healthy. The nerves running in the thickness of the muscles were, however, atrophied; and this was traced most exquisitely in the tongue, of which there had been perfect paralysis. The lingual (gustatory) nerve was well fed and of proper size, but the hypoglossal (motor) nerve was extremely atrophied; many of its branches seemed to consist of nothing but neurilemma.

M. Duchenne had electrolized this patient, and found that as the paralysis advanced, the muscles became inexcitable.

M. Cruveilhier remarks on these three cases, that the first case showed only paralysis without disease of the nervous centres; the second, more completely examined, exhibited great muscular atrophy and degeneration; while the third, still more carefully dissected, showed, in addition, atrophy of the anterior roots and of the muscular branches of the nerves. He remarks, also, that the clinical history and the morbid anatomy exactly accord. There is conservation of intelligence, and want of disease in the brain; conservation of sensation, and the cord and posterior roots are unaffected; paralysis of motion, and the motor nerves and muscles are atrophied.

But what is the connexion between the atrophy of the muscles and of the nerves? Which is primary and essential?

The coincidence of nervous and muscular atrophy cannot properly be regarded as an exceptional case; nor, in all probability, is it a simple coincidence. Cruveilhier, after referring to the rapidity with which the atrophy occurs; to the great influence of the nerves: and to a case (of Dupuytren's) in which atrophy of one-half of the tongue succeeded compression of the hypo-glossal nerve by a cyst; regards as demonstrated, that the atrophy of the nerves is the primitive lesion and the atrophy of the muscles is consecutive, and a consequence merely of diminution of function.

But what is the cause of the nervous atrophy?

Here observation at present fails, and future clinical experience must solve the problem. M. Cruveilhier believes that he has accomplished one step of progress in showing the implication of the nerves. How the nerves become implicated must now be learned.
EDITORIAL AND MISCELLANY.

BIBLIOGRAPHICAL.


The work of Vidal is a necessary complement to those of Hunter and Ricord issued from the American press within the last twelve months. The writings of these three practitioners constitute as complete a library on Syphilis as can be found upon any other department of medical knowledge. With Hunter, to represent the doctrines of the 18th century, and Ricord, those of his own school, we have also Vidal, who, though not without prepossessions himself, is nevertheless the ablest adversary of the dogmatism of his colleague. Ricord and Vidal may now be properly designated as the great rival authorities of the day upon one of the subjects most interesting to the welfare of the human family. Whoever, therefore, wishes to be thoroughly posted up, should read both.

The treatise before us is remarkably complete, and worthy the distinguished author of the most perfect work extant upon Surgery. The additions by Dr. Blackman are judicious, and contribute much to enhance its value.


The very high position long occupied by Lawrence's work upon the Eye, as well as that of Dr. Hays, as a sound practitioner of ocularistic medicine, renders the present combination of the views of both eminently valuable. We know of no work to which we would refer with more confidence: indeed, it is decidedly the best in our language. The publishers are entitled to high commendation for the beautiful style in which they have issued the work, and we take great pleasure in recommending it to the profession.


The work before us is so generally known to the profession, that
our commendation is not necessary to insure its continued patronage. We must acknowledge that we are among those who regard the views and practice of Dr. Bennet as decidedly tinctured with the ultraism too common with specialists. The judicious observer and practitioner will readily, however, detect these errors of zeal, and find in this book a vast amount of valuable matter and sound practical information.


This is one of the most popular text books with medical students, who are good judges of merit. It contains enough of Physics, elementary chemistry, organic chemistry and general principles, to make it peculiarly adapted to their wants.


Homœopathy has had its day in Europe, and is now in the ascendant in some of our cities. Like Thompsianism, it will soon give way to some other delusion; for it is a singular peculiarity of the human mind, that although common sense will repudiate one absurdity, it does not the less remain open to imposition by another. History is valueless if it has not taught us this much. Ever disposed to learn the truth, from whatever source it may originate, we early (as far back as 1830) carefully perused Hahnemann's organon, the fundamental work upon Homœopathy, and became satisfied that the learned author (for learned he certainly was) was either grossly deluded, or was endeavoring to practice what he may have deemed "a pious fraud" upon poor human nature, which was suffering the baneful effects of undue faith in therapeutic agents, and consequently of excessive medication. He, perhaps, thought that it would be better for man to be without physic than to abuse it, as was done in and out of the profession. By framing a new system for credulity to fasten upon in lieu of the errors then considered scientifically orthodox, the sagacity of Hahnemann may well have foreseen that even after the downfall of its supremacy, the valuable lesson would have been taught,
that much of the healing art may be left to nature without serious
detriment to the cause of health. Whichever view of the author's
motive be adopted, we must say that the best antidote of Homoeopathy
we know, is the perusal of Hahnemann's organon. Like Thompson's
Life and narrative, it carries with it its own refutation, and can
therefore do no harm to the reader, whilst it may interest him deeply
as a specimen illustrative of human nature under the influence of
mental delusion, if nothing worse.

Professor Simpson's able exposition of the absurdities of Homeo-
pathy, may serve to open the eyes of those who have placed, and retain,
in one of the most important Chairs of the Medical School of Edin-
burgh, a man weak enough to believe them. Those physicians in
our country who have not had access to Hahnemann's writings will
do well to procure Prof. Simpson's work. But it is especially desir-
able to have the book placed in the hands of such non-professional
persons as may be inclined to look favorably upon this nonsensical
system. By keeping a copy for this purpose, each practitioner will
exert more influence in his neighborhood than by personal controver-
sies, in which he may be regarded as an interested witness by those
who do not know how to distinguish between the love of truth and the
love of lucre.

Prize Essay: On the use and abuse of Alcoholic Liquors in health
and disease. By Wm. B. Carpenter, M. D., F.R.S., &c., &c.,
with a preface by D. F. Condie, M. D., &c., &c. Philadelphia:
Blanchard & Lea. 1853. 12mo., pp. 178. (For sale by McKinne
& Hall. Price $1 00.)

A prize of 100 guineas having been offered, in England, for the
best essay on the use of alcoholic liquors in health and disease, it was
unanimously awarded by the learned adjudicators to the work before
us. It is eminently calculated to be useful to both professional and
non-professional readers, and ought to be extensively circulated.

On the Etiology, Pathology, and Treatment of Fibro-Bronchitis and
Rheumatic Pneumonia. By Thomas H. Buckler, M. D., former-
ly Physician to the Baltimore Almshouse Infirmary. Philadelphia:
Blanchard & Lea. 1854. 8vo, pp. 150. (For sale by T. Rich-
ards & Son.)

Although the vast amount of research bestowed upon the diseases
of the pulmonary apparatus had induced many to think that this de-
partment of pathology was fully understood, Dr. Buckler has opened
a new field for observation by the detection of a rheumatic element in
an organ hitherto regarded as beyond the limits of its intrusion. It
is true, that the subject had been hinted at by others, but to our author is due the credit of directing attention to it by a distinct monograph. We regret that the limits of this Journal do not allow us room for more than a mere bibliographical notice of Dr. B.'s work—and, although we are not prepared to admit the full force of his conclusions, we earnestly commend it to the attention of the profession, as drawn up in a philosophical and eminently practical manner.

Clinical Report on Chronic Pleurisy, based on an analysis of forty-seven cases. By AUSTIN FLINT, M. D., Professor of the Principles and Practice of Medicine in the University of Buffalo, N. Y., and in the University of Louisville, Ky. Buffalo: Jewett, Thomas & Co. 1853. Svo., pp. 58.


The two works at the head of this notice belong to a class of practical productions, which no man in our country is better qualified to make useful than the learned and industrious author. Prof. Flint is setting a good example to those whose position enables them to see large numbers of cases of similar disease, and to keep careful records of their progress. This is the true method of studying pathology and the value of therapeutic agents. We trust that these reports will be carefully read, and adopted as models by those who may have the ambition to add their mite to American medical literature.

OTHER WORKS RECEIVED.

In addition to the works above noticed, we have received a large number of pamphlets, among which are:

An Essay on the Mechanism and Management of Parturition, in the shoulder presentation—by Wm. M. Boling, M. D., of Alabama.


Quarterly Summary of the Transactions of the College of Physicians of Philadelphia, from November to January, 1854.

The American Journal of Science and Arts—conducted by Professors Silliman, &c. The March No. before us is very superior, and fully sustains the high reputation of the work.
An Address before the association of the Alumni of the University of the city of New York—by C. S. Henry, M. D.

An Address to the Alumni of the University of the city of New York—by Prof. J. W. Draper, M. D.

A Lecture, by Jonathan Knight, M. D., introductory to the course of lectures in the Medical institution of Yale College.

Doctors’ Commons: an Ethic Address before the District Medical Society for the county of Burlington—by S. W. Butler, M. D.

A reply to the attacks of Dr. Charles Caldwell—by L. P. Yandell.

We understand that a medical periodical has been issued in Atlanta, but we have not received a copy of it.

Medical College of Georgia.—The Commencement exercises in this Institution took place on the first day of March. From the Dean’s Report, it appears that there were in attendance upon the course of Lectures just terminated one hundred and fifty-four Students, of whom 111 were from Georgia, 21 from Alabama, 13 from South Carolina, 3 from Florida, 3 from Tennessee, 2 from North Carolina, and 1 from Mississippi. The Degree of Doctor of Medicine was conferred upon the following gentlemen:

R. L. Bird, Georgia. Samuel McIntosh, Georgia.
W. T. Bailey, " W. H. Murray, Georgia.
Josiah Brown, Alabama. T. J. Murph, "
O. W. Crowder, Georgia. J. W. Osline, Georgia.
Dennis Collins, " C. D. Parmer, Alabama.
W. E. Collier, " E. D. Pitman, Georgia.
J. B. Dunn, " S. F. Pendergrass, S. Carolina.
B. R. Doyle, " G. A. Stephens, Georgia.
A. S. Fowler, " Isaac Schatz, "
C. H. Gorman, " W. F. Shelton, "
D. G. Gardner, Alabama. A. A. Trammell, "
W. B. Hurst, Alabama. W. W. Tison, "
T. O. Heard, Georgia. H. B. Tutt, Georgia.
J. W. Hunter, Alabama. D. B. Tabb, "
T. Y. T. Jameson, " A. F. Verdery, "
B. F. Lindsey, S. Carolina D. D. Westmoreland, S. Carolina.
J. O. A. Lewis, Florida. J. L. Wofford, "
J. C. Lee, Georgia. W. D. Young, Tennessee.

Dr. Wm. B. Thomason, a graduate of the Med. Col. of Memphis.
Medical College of Savannah.—We learn that the recent Class in this Institution numbered thirty-six, and that the Doctorate was conferred upon the following gentlemen:


We are informed that Dr. H. V. Wooten has resigned his Professorship in the Medical College of Memphis.

Non-recurrence of Dysentery.—In his clinical Report on Dysentery, Prof. Austin Flint seems inclined to adopt the belief, that persons once affected with Dysentery are not liable to another attack of it. If this can be established, it will be quite a novel fact in the history of this disease.

Meeting of the Medical Society of the State of Georgia.—We are requested, by the Secretary of the Medical Society of the State of Georgia, to state that the next annual meeting will be held in the city of Macon, on the second Wednesday of the present month (12th April). It is to be hoped that the profession will be fully represented.

Dr. Alexander Turnbull.—The last No. of the Charleston Medical Journal administers a merited rebuke to this notorious charlatan, who has been recently duping the good people of our sister city.

Dr. Long's claim of priority in the use of Anaesthesia.—The Transactions of the Med. Soc. of the State of Ga., contain the following action in reference to the claims of Dr. Long:

"Dr. Dickinson read the following report and resolution of the committee on Dr. Long's claims, which were unanimously adopted:

"The Committee to whom was referred the claims of Dr. Crawford W. Long, (formerly of Jefferson, Jackson County, Geo., but now of Athens,) to originality in the use of sulphuric ether as an anaesthetic agent.—Report:

"That Dr. Long has exhibited to your committee, evidence proving conclusively to us, that, as early as the 30th March, 1842, he successfully used Ether as an Anaesthetic Agent, in removing a tumour from the neck of James M. Venable, of Jefferson. On the 6th of June, 1842, he also used the ether in removing another tumor from the neck of the same person. On the 3d July, 1842, he also used ether successfully as an anaesthetic, in amputating a toe for a negro boy, the property of Mrs. Hemphill, of Jackson County, Geo. On Sept.
9th, 1843, he used the ether in like manner, in the removal of a tumor from the head of Mrs. Mary Vincent, of Jackson County; and on the 8th of January, 1845, he also used it successfully in the amputation of a finger for a negro boy, the property of Ralph Baily, Jr., of the same county. In every case the ether was used by inhalation from a towel or handkerchief. Your committee are unacquainted with any of the witnesses who testify in favor of Dr. Long's use of the article, but after a careful examination of all the certificates and affidavits exhibited to us by Dr. Long, we see no circumstance calculated to cast the slightest suspicions upon their truth and correctness.

"The character of Dr. Long, in the opinion of your committee, is sufficient to shield him from the suspicion of using a witness for a dishonorable purpose. We therefore recommend to the society the adoption of the following resolution:

"Resolved, That it is the opinion of the society that Dr. Crawford W. Long, of Athens, Geo., was the first person who used Sulphuric Ether as an Anæsthetic Agent, in surgical operations; and as an act of justice to Dr. Long, individually, and to the honor of the profession of our own State, we recommend him to present his claims, to priority in the use of this most important agent, to the consideration of the American Medical Association at its next meeting."

Amputation of the Tongue. By M. MAISONNEUVE.—M. Maisonneuve performed an operation upon the tongue of a patient, so remarkable, not only for the results of the operation but in the origin of the malady, as to be well worthy some details. The patient was a distinguished confrère, Dr. J., member of the Imperial Academy of Medicine of Paris, and President of the Committee of Vaccination. In the exercise of his functions on the committee of vaccination, he was in the habit of handling large numbers of small glass tubes containing the vaccine liquid in their ends. He often held these for a moment in his mouth, and they had several times caused slight pictures on his tongue, followed by enlargement. These generally disappeared at the end of several days; but at length an induration was established of a grave character. To remove the induration the doctor employed first the nitrate of silver, then the acid nitrate of mercury; but this medication, far from arresting the progress of the malady, only aggravated it; epidermic plates developed themselves over the entire surface of the tongue, and later, a deep ulceration invaded the centre of this organ. Adopting the advice of some medical friends, he submitted to an energetic cauterization of the part with the hot iron; but this also only served to give the disease new activity: all the anterior part of the tongue, as far as the calciform papilae, a distance of eight centimètres, became the seat of an induration, while the central ulcer continued to make rapid progress. To these symptoms were soon added lancinating pains, which left to the patient no rest. By the advice of M. Ricord, he took the iodide of potassium; but, notwithstanding this treatment, the malady progressed from day to day, and the tongue, now enormously tumefied, obstructed the buccal cavity,
and the saliva flowed continuously. Speech had become impossible, and the patient's diet was limited to liquid substances. All rational treatment having failed to arrest the disease, he sought M. Maisonneuve’s services. Amputation was immediately proposed, and accepted as the only resource. The patient was submitted to chloroform. M. Maisonneuve then made an incision through the soft parts in the median line from the edge of the inferior lip down to the chin, passed a chain saw around the inferior maxillary bone, and made a section of it. The section of the chin was then drawn apart, which enabled the surgeon to seize the tongue and draw it well out of the mouth. By a rapid dissection, the diseased organ was separated from the healthy parts, at a point beyond the anterior half, an extent of eight centimetres—a little over three inches. The sublingual gland was sacrificed; ligatures were applied to the important vessels, and no hemorrhage followed. After the operation, the branches of the separated jaw were brought into apposition, and secured by threads passed around the teeth. The ligatures placed on the vessels were brought out, under the edge of the jaw, at the lower angle of the wound; and the borders of the division were united by the twisted suture. Notwithstanding the extreme gravity of this operation, no unpleasant results followed. The external parts cicatrized by first intention, the bones consolidated, the enormous loss of substance filled up rapidly, and what is remarkable, the patient has recovered his speech, as well as the power of seizing and masticating his food! The anatomical examination demonstrated that the disease belonged to the class of epithelial cancroids, which permits the hope that it will not be re-produced.—[N. Y. Medical Times.

Existence of Syphilis in France in the First Century of the Christian Era.—M. Becquerel communicated to the Medical Society of the Hospitals of Paris the inductions of an antiquary of the Côte-d’Or, who, in the ruins of a temple situated near the source of the Seine, where it was the custom to take baths, met with a number of inscriptions, ex-voto, attesting the cure of different diseases of the genito-urinary apparatus by the use of the waters. These ex-voto were lithographed, and they were seen to record examples of tumours of the scrotum, of buboes, of destruction of the penis, and of other alterations which might be referred to syphilis. If these conclusions be correct, it establishes the fact of the existence of syphilis in the thirtieth year of the Christian era. A commission consisting of MM. Legendre, Requin, Becquerel, and Gillette, was appointed to examine the evidence.—[L'Union. London Lancet.

Spontaneous Evolution. By J. Jones, Esq., Llanfair, Montgomeryshire.—The following, I presume, somewhat extraordinary case occurred to me a few days ago:

A female, aged forty-three, the mother of five children, was taken in labour of her sixth. It was a foaling presentation, both feet being low in the vagina, but the uterine contractions being almost nil, and
the os uteri amply dilated, I did not hesitate to administer strong doses of ergot. Having entrusted the nurse to administer the ergot according to my directions, I left the apartment, but was summoned back in about three-quarters of an hour, when, to my astonishment, I found the feet and head had exchanged positions. It was now a natural presentation, and the child was born in a few minutes after the ergot had produced sufficient uterine contraction. The infant was small, otherwise it is improbable that the contractions of the womb could have effected such a change in its position.

P. S.—The child is alive.—[London Lancet.

Silk instead of Sponge for Laryngeal Probangs. By J. H. B.—Having had occasion to use topical remedies within my own vocal organs, I was surprised at the apparent harshness of the finest sponge I could procure, and was induced to try a ball of silk floss or ravelings, well fastened by sewing through-and-through loosely. It holds sufficient of any solution, and does not produce as much involuntary contraction as a sponge; hence it can be passed through the "rima glottidis" in most patients, in the first or second application to the throat, whereas a sponge often requires repeated trials, and is more painful than is necessary.—[Peninsular Journal of Medicine.

Early Operation for Hare-Lip.—Andrew Nolan records a case of operation for single hare lip on an infant six hours after birth. The child did not seem to suffer much after the operation was complete, and took drink, apparently without suffering, next day. The lower needle was removed in sixty hours, and the upper in seventy-two. Union was perfect.—[Dub. Med. Press.

Recipes for Cologne Water, from Redwood Gray's supplement.

<table>
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<th>Recipe</th>
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<td>Oil of Orange Peel</td>
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<td>Oil of Citron</td>
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<td>Oil of Bergamot</td>
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<td>Oil of Lavender</td>
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<td>Oil of Rosemary aa</td>
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<td>Oil of Cinnamon</td>
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<tr>
<td>Cardamoms, powdered</td>
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<td>Balsam Peru aa</td>
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<td>Rectified Spirit</td>
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Macerate ten days, then distill six pounds with a gentle heat.—Pharm. Badensia, 1841.