
In writing an article designed to invite attention to the varied applications of waters—the numerous indications it is so well calculated to fulfil—its great, and in many cases, transcendant remedial virtues, we trust that our antecedents will be sufficient to relieve us from the charge of “giving aid and comfort” to a class of modern pseudo-reformers, who claim for this agent exclusive, universal, and almost omnipotent powers. And in order to remind regular physicians that they may speak and write of the remedial application of water, and use it too, ad libitum, in all its forms—solid, fluid, or gaseous; at all temperatures—hot, cold, tepid, or warm; to every part, generally or locally; in every way—by aspersion, by affusion, by submersion, by detersion and perfusion; by wet sheets or shirts, cloths, blankets, or rags, without justly subjecting themselves to the humiliating imputation of being misled by the New Lights, we will give a very brief history of bathing, which will show that water has been used in most or all these forms, from the most remote antiquity, and sanctioned by the greatest medical writers of ancient and modern times.
History of Bathing.

As it would be foreign to our purpose to dwell on the remedial and religious uses of water, by the Hebrews, Egyptians, Greeks, and Romans, we will only remark that it has thus been used by all nations, in all ages, and by all denominations—Jewish, Christian, Mahometan, and Pagan. We will now briefly refer to some of the ancient medical authors who advocate the use of "Nature's own remedy," of which we hear so much in these modern days. Hippocrates recommended bathing in pneumonia; and cold affusions in inflamed joints, in gout and rheumatism, and in spasms, dislocations and fractures. Galen says: "Cold water quickens the action of the bowels; cold drink stops hemorrhages, and sometimes brings back heat; cold drinks are good in continued and ardent fevers—they discharge the redundant and peccant humors by stool, by vomiting, or by sweat." He also commends the internal and external use of water, warm and cold, in biliousness, spasms, headache, fever of the stomach, hiccough, cholera morbus, ophthalmia, and plethora. Celsus directs bathing in affections of the head, in fulness of the stomach, weak vision, deafness, tremors, sinking, pains in the joints, diarrhœa, piles, hysteria, hypochondriasis, low fevers, digestive disorders, diseased kidneys, skin diseases, and hydrophobia. In addition to this strong testimony from the "fathers" in medicine, we can only mention, among the ancients, the names of Asclepiades, Oribassius, Ætius, Rhuzes, and Avicenna; and among the moderns, the names of Hoffman, Boerhaave, Haller, Floyer, Gregory, Cheyne, Lanzani, Harvey, Ambrose Pare, Larry, Macartney, Percy, Wright, Carrie, Jackson, Forbes, and John Bell; and we might add the names of Sir Charles Scudamore, Drs. Johnson, Adair and Crawford, Mr. Mayo, Mr. Courtney, and the celebrated Liebig, several of whom have gone so far as to give their sanction to the "Water-cure processes.

But it may be said by our modern reformers, this is all true; the external and internal use of water has been recommended by all the most distinguished physicians in the world, ancient and modern, in every variety of disease; yet the immortal Priessnitz certainly did discover the wet sheet. We will see.

"Dr. Cole gives an account of a stout young man in a delirium, who, escaping from his nurse, ran into a pond, where, standing up to his chin, he swore he would drown who ever came in after
him. At his own time he came out of the pond and sat for many hours in his wet shirt by the bed-side. A physician was sent for four miles distant, who found him, upon his arrival, still in his wet sheet, or shirt, pertinaciously refusing to go to bed until, as he said, 'he took a notion.' This man recovered kindly.

"Dr. Floyer, 150 years ago, tells us that the people of Staffordshire, England, go into the water in their shirts, and when they come out they dress themselves over their wet linen, which they wear all day, and much commend."*

But be this as it may, whether the idea of the wet-sheet pack originated with Priessnitz or not, it is doubtless a very valuable and convenient application, and we should not fail to avail ourselves of it, or any of the "water-cure processes," because they may have been abused and over-rated by a set of empirical hydromaniacs: on the contrary, guided by a Catholic spirit of scientific eclecticism, we should, without hesitation, levy contributions from every quarter, remembering always that the difference between the scientific physician and the quack consists, not so much in the remedy used, as in the mode of using it.

Having shown that Hydropathy (like Thompsonianism) has nothing really new about it, except its extravagant pretensions, we will next adduce some theoretical considerations as an essential preliminary to a rational exposition of the therapeutic application of water. For the sake of brevity and perspicuity, we will present this part of our subject in an aphoristic form, promising that we shall advance nothing but axiomatic truths, or facts well established by the researches of Liebig and other modern chemists and physiologists.

Physiological, Pathological, and Therapeutic Aphorisms.

Aphorism I. Animal life, in its ultimate analysis, is nothing more nor less than a continued transformation of matter—an uninterrupted decay and restoration of the body—the ceaseless operations of two opposing processes of supply and waste—of decomposition and recomposition—of vital and chemical affinity.

Aph. II. These two grand processes comprise the functions of digestion, absorption, circulation, assimilation, respiration, and excretion.

Aph. III. The above transformations and functions are render-

ed more active by exercise, and by cold, through the agency of the Vis Medicatrix Nature, in her efforts to maintain an uniform standard of temperature.

APh. IV. The direct effect of water, of a lower temperature than the human body, is sedative.

APh. V. In its indirect or re-active effect, it is stimulant; and it possesses in addition the following properties, according to temperature and mode of administration, viz.: Refrigerant, anodyne, derivative, diaphoretic, diuretic, anti-spasmodic, astringent, (counter irritant) and tonic.

APh. VI. The first impression produced by the application of cold water to the surface is, a vivid shock to the nervous system, with a simultaneous repulsion of the fluids upon the internal organs. The second effect (the result of the conservative powers of the organism,) is re-action, attended with a strong determination to the superficial cutaneous vessels, and perhaps to the capillary vessels of every part of the system.

APh. VII. Derangement or impairment of the Nervous power is the primary link in the chain of morbid action.

APh. VIII. Derangement of the capillary system of vessels—the organs of chemical and vital transformations—(Aph. I.) is the second link in the chain of diseased action.

APh. IX. As a general rule, decidedly cold water should not be used on the surface of the body, in active internal inflammations, and high fevers; or in acute diseases generally, unless it could be continuously applied so as to avoid injurious re-action.

APh. X. The degree of re-action, after the cold bath is, in general, caeteris paribus, proportioned to the coldness of the water—to the suddenness and force of the immersion—to the vigor of the circulation in general, and more particularly that of the surface—to the muscular movements in the bath—to the friction and exercise after the bath; and, finally, within certain limits, to the period of stay in it.

APh. XI. The cold bath is not positively contra-indicated in acute internal inflammations; on the contrary, its use in such cases is correct, according to the modus operandi of the remedy; the objection to it being the practical difficulty of keeping up uninterrupted sedation. (Aph. IX.) Hence the following corollary, which demands our special attention, viz: Most of our medical writers, confounding the effects of water of different temperatures, or being mis-
led by theoretical fears, are over cautious and restrictive in its use. The terms hot, cold, warm, &c., being entirely relative and not absolute, great confusion and misapprehension are almost inevitable, in estimating the effects of different kinds of baths. We will, therefore, in discussing this subject, venture to make the following innovation in our present nomenclature, which we think will obviate, to some extent, this difficulty. We will call all baths which act primarily as stimulants to the general system—all bath above the active or relative temperature of the body, plus baths; while all baths of primary sedative action—all baths below the actual or relative temperature of the body, will be designated as minus baths; or, to be more specific—all baths above 93°, or above any other number of degrees to which the body may be accidentally elevated—all caloric baths will be comprehended under the former division; and all baths positively or relatively lower than the above points, will be classed under the latter head; while at the same time, the terms in ordinary use may be prefixed, or affixed, as convenience may dictate.

Dr. Forbes, in his very comprehensive article in the Cyclopeedia of Practical Medicine, has fallen into the difficulties above mentioned, if we are not much mistaken; and as he may be considered a fair expositor and representative of the views of the profession generally, his article on "Bathing" will receive special attention.

He tells us, first, that the cold bath (33° to 60° according to his division,) is less applicable in infancy and old age, than in youth and middle life. This may be true as a general rule, still we are fully satisfied that it may be safely and beneficially used in tender infancy, and in trembling senility; and even in great general debility of all kinds, if the temperature of the water be duly proportioned to the re-active powers, and if the proper means (Aph. X.) be used to ensure vigorous re-action. His second contra-indications to the cold bath are menstruation and pregnancy; in the former positive, and to be used with great caution in the latter. The objections to the use of very cold baths during menstruation are no doubt well founded, still we think it possible, on theoretical grounds, that minus cool, or even cold baths might be resorted to with safety and advantage in some forms of dismenorrhea and menorrhagia. As to pregnancy, although all violent perturbating remedies are inadmissible, we cannot see why this state should,
in itself, be a contra-indication to the judicious use of the cold bath, either generally or locally. Our author, in speaking of the warm bath, says: "It may be stated generally that pregnancy, in relation to the warm bath, is to be viewed as a state of excitement, if not as an inflammatory disease. Admitting this to be true, certainly nothing would more safely and effectually subdue the nervous and vascular excitement incident to pregnancy, than the local and general use of minus cool, or even cold baths of the higher temperatures; by the abstraction of excessive heat; by equalizing the circulation; by removing internal congestions; by corroborating the whole system; and thus preparing it to furnish suitable elements for the development of the new being, and to pass safely through the critical period of parturition. In short, we think that this is one of the cases in which regular physicians might, with much advantage to their patients, disregard the suggestions of pride and false theories, and follow the example of the Hydropaths, who use their wet bandages, general and sitz-baths, in the cases under consideration, not only with safety, but with great reputed success. And while on this subject, we would apply the above remarks to the treatment of women after parturition. All physicians agree in the use of cold applications in post-parturient uterine hemorrhage; and we are convinced that all the more reflecting are fully satisfied that the popular fear of "catching cold," so prevalent, is unfounded. They are also taught by daily experience and observation, that the throes of parturition leave the system in an irritated and excited condition bordering on fever, which constitutes a strong pre-disposition to inflammatory disease. This being true, then, could anything be more safe, more agreeable, and more prophylactic than a general tepid, or even a cold ablution soon after delivery? Far be it from us to advocate the rash and indiscriminate practice of many empirics of the present day; but in order to show that cold water is not so dangerous in childbed, as some imagine, we will give the practice of the Hydropaths in such cases. As soon as the child is born, a pint or more of water is thrown up the vagina, which they say (with reason too,) causes the womb to contract immediately, and prevents after-pains. The patient is then washed all over in cold water, and a cold wet bandage is placed around the abdomen. When the patient awakes she goes into a cold sitz-bath fifteen minutes, the wet bandage is re-applied and continued a month, together
with two sitz-baths, and three vaginal injections, daily. We must say that we consider this rather too much of a good thing, yet it serves to sustain us in the position we have taken, and should go far to encourage and confirm physicians in the judicious and scientific use of cold water, even within the very domain of ignorance, prejudice, and oldwomandom—the lying-in-chamber.

Dr. Forbes' third contra-indication embraces—great plethora; a predisposition to active hemorrhages; to local congestions in the more important viscera; in apoplectic subjects, and in tendency to hæmoptysis, &c. As the plethoric contra-indication will be discussed under the head of the warm bath, we will only remark here, that the wet-sheet pack (which combines the stimulant and sedative effects of cold water,) is highly recommended by the Hydropaths in such a condition.

The action of cold in hemorrhages and in internal congestions will now engage our attention. If we are correct in our views with regard to the action of cold water; if it be a direct sedative and refrigerant; and if (as is admitted by Dr. Forbes and others,) parts not in contact with a refrigerating medium, contract through sympathy, then is the local, continuous (Aph. IX.) sedative application of this remedy strongly indicated in active hemorrhages of all kinds, hæmoptysis not excepted; the only cautions necessary being, to avoid carrying sedation too far, and yet to keep it up continuously, so as to prevent re-action. In passive hemorrhages, the same potent agent is at our service still; but in cases of this kind, its stimulant, re-active, derivative, and equalizing effects are desired: it should therefore be briefly and suddenly applied; while all the means already indicated as proper to ensure these results should be duly regarded. (Aph. X.)

As to the local congestion of internal viscera, we must be permitted to say that we could not possibly imagine anything better calculated to remove these congestions than the stimulant and derivative action of cold water properly adapted, in temperature, to the re-active powers of the system, and regulated according to the principles already annunciated. And we will add, even at the risk of being considered heterodox, that we know of nothing better suited to fulfil these indications, in the cases in question, and in passive hemorrhages, haemoptysis included, than the wet-sheet pack. Passing the fourth division of contra-indications, which does not require special attention, we will give the fifth
verbatim: "It is generally inadmissible (the cold bath) in indurations, obstructions, or chronic inflammations of the internal parts of the body, more particularly of the principal viscera; likewise in all acute inflammations of the same parts, and also in chronic inflammations of the mucous membranes of the bronchi and intestinal canal, except when these are very slight." Our views as to the principles which should govern us in the treatment of acute diseases, with cold water, having been sufficiently indicated, (Aph. IX. and XI.) we pass on to the consideration of one of the most interesting subjects within the whole domain of therapeutics, namely, its application in chronic diseases. This is a theme of extraordinary interest, on account of the well known obstinacy of such affections, their extensive prevalence, the inefficiency of our ordinary remedies in their treatment, and because, in our opinion our orthodox dogmas on this subject, need a thorough and radical revision. While it is admitted, even by the ultra Hydropaths, that cold water is not so useful in organic, as in functional diseases, we must dissent from the conclusion of Dr. Forbes, that "it is generally inadmissible in indurations, obstructions, or chronic inflammations of internal parts," for the following reasons:—In chronic diseases, generally, there is a want of proper activity in all the organic processes; all the powers of life are below par, and consequently all the functions are more or less tardily and imperfectly performed; and this is true equally of the diseased organ itself, for though there may be a determination of blood to the affected part, this is rather a morbid than a vital stimulant, for it flows languidly through the hyperæmic vessels of the suffering organ, and producing in short, all the pathological phenomena characteristic of passive congestion, rather than of active inflammation. If these premises be admitted, then are the stimulant and re-active effects (Aph. V.) of the cold bath most desirable in almost every form of chronic disease—to derive to the surface, to equalize the circulation, to eliminate morbid matters, to arouse the excretories, to quicken the chemical and vital processes of the capillary circulation, (Aph. I. and VIII.) to send the vivifying current through the stagnating vessels of the affected organ with a healthy impulse; and in short, to re-animate the sluggish powers of the whole organism. We will even go farther than this, and say, if the premises be true, then the more chronic the disease, the more permanent the inflammation; the greater the congestion or obstruc-
tion, the colder should be the water: provided always, that all the atten
tendant circumstances of the case receive proper consideration; and
provided everything necessary be done to ensure vigorous re-action.—
(Aph. X.) The above observations are applicable to chronic dis-
eases generally; and a fortiori, to chronic inflammations of the
gastro-intestinal and pulmonary mucous membranes, because of
the well known sympathy existing between those membranes and
the skin. Yet while this intimate sympathy tends to strengthen
the indication for the cold bath, it at the same time requires cor-
responding caution in using this remedy; and this is the reason,
no doubt, why it has been deemed wholly inadmissible in inflam-
mations of the chest, by Dr. Baché, (U. S. Dispens.) and almost all
regular physicians; while the same consideration, doubtless, in-
duced Dr. Forbes to restrict its use only to "very slight" chronic
inflammations of the intestinal and pulmonary mucous membrane.
From this we draw the following practical deduction, viz: While
cold water is not by any means inadmissible, either locally or
generally, in the affections under consideration, it will, as a gene-
ral rule, be safer and equally as effectual to use it in accordance
with the principles which would govern us in the treatment of
acute diseases; (Aph. IX.) for exteris paribus a higher temperature
will produce as great an effect in these affections, as a lower would
in other diseases. We have thus given our views on the use of
the cold bath in several morbid conditions, and endeavoured to
establish correct principles for its administration; we have felt
much diffidence in expressing opinions adverse to the most autho-
ritative writers in our profession, but we are prompted to the disa-
greeable task, by the firm conviction, that the doctrines advocated
(although to some extent theoretical,) will bear the test of the most
rigid examination. We proceed next to another form of bath,
concerning which greater errors are entertained, if possible, than
those we have first been discussing.

The Warm Bath.

It has been seen that this bath, according to our division, in its
primary, and we might say in its exclusive effects, is a minus or
sedative bath; being lower than the normal temperature of the
body, its action is identical with the sedative action of the cold
bath, differing in degree only from the latter, and not in kind: yet,
with this important difference—there being little or no reaction or
shock to perplex us in investigating its modus operandi—its phenomena are less complex and more easily understood. This is undoubtedly a correct view of the subject; yet, as strange as it may appear, Drs. Bache, Forbes, and indeed most our medical writers, while they prescribe the warm bath in diseases of excitation, nevertheless trammel its use with cautions, restrictions, and contra-indications, which plainly show that they have confounded the effects of the hot and warm bath. The former writer says: "the warm bath cannot be deemed, strictly speaking, a stimulant." And he tells us again, that it has a soothing influence in certain states of morbid irritability; and that it is proper in febrile and exanthemeatous diseases in which the pulse is frequent and the skin hot and dry. Yet—"it is contra-indicated in diseases of the head and chest," according to Dr. Bache. (U. S. Dispen., 115.)

Now, the fact is the warm bath is not in any sense a stimulant, as we might be led to believe from the cautious language of this writer: for though, as he says, its temperature may be above that of the surface communicating to it a sensation of warmth, it is nevertheless below the normal standard of animal heat; it abstracts caloric, soothes the nervous system, allays vascular excitement, restores the equilibrium of the circulation, and is, therefore, "strictly speaking," a minus or sedative bath—and nothing else. And yet, notwithstanding all this, we are told that it is contra-indicated in diseases of the head and chest: in inflammatory diseases of these parts, we presume. But with what propriety such declarations are made we cannot possibly see, for we cannot imagine any way in which the warm bath could act injuriously, in such cases, unless it were by the retro-pulsion of the fluids, by the density of the medium surrounding the body; but, admitting the possibility of this, we think that this result would be fully counteracted by the increased capacity of the cutaneous vessels, in accordance with well known physical laws. And apart from all theory, we feel confident that we may safely appeal to the experience of every physician to answer the question as to whether he has ever seen any injurious effects from the warm bath, in the diseases under consideration, when the temperature of the water and all the attendant circumstances of the case were duly regarded in its administration.

The position we have taken is so rational and obvious that it would appear to be a work of supererogation to multiply argu-
ments in its support, were it not that our most authoritative writers, our preceptors in theory and our guides in practice, advocate adverse (and we must say erroneous) views on this vitally important practical point. For instance, the author to whom we have already given so much attention, (Dr. Forbes,) prescribes the warm bath (92° to 98°) in chronic nervous diseases of a spasmodic kind; in cramps, spasms, and convulsions of various kinds, unaccompanied by a plethoric state of the system, or by fever. He prescribes it also in various painful nervous and spasmodic affections, such as neuralgia, sciatica, &c., in spare habits, and without inflammation; also, in acute inflammations of the mucous membranes of the abdominal and pelvic viscera, with the loss of blood generally and locally, in all cases, or with very rare exceptions, in order to render the bath a useful, or even a safe remedy. With these precautions it may be useful, if not contra-indicated by plethora, &c. Similar directions are given as to the use of the warm bath in chronic inflammations of the same parts. And lastly, he informs us that it has been used, more particularly on the continent, in the cold stages of severe fevers, and in the retrocession of cutaneous diseases. Certainly rather a strange remedy, according to our ideas, unless the temperature of the bath was above that of the body.

We have italicised some of the contra-indications made by him in prescribing this remedy; and we find by glancing over his article, that five, out of the nine indications, contain cautions and restrictions plainly showing that he considers the warm bath a dangerous stimulant and excitant. He positively contra-indicates it, or enjoins great caution in its use—in full habits, in plethora, in predisposition to apoplexy and hemorrhage, in organic diseases of the heart, in great relaxation of the system, in extreme sensitiveness of the surface, and "in all febrile diseases, whether accompanied by visceral inflammation or not, where there is an active circulation and a hot dry skin." (Cyclo. Prac. Med., p. 277-279.)

As we remarked, when treating of the cold bath, we feel great diffidence in opposing the views of one so distinguished as Dr. Forbes; yet we must be permitted to say, that we can see but one proper contra-indication in all the above list, and that is in cases of "great relaxation."

And we must say, in conclusion, that we cannot expect physicians to realize the extraordinary benefits to be derived from the warm bath, or to use it judiciously, when they follow, without
investigation, the dicta of writers who make an "active circulation and a hot, dry skin," a positive contra-indication to it.

The Temperate, Tepid, Vapor, and Hot Baths.

As the cold and warm baths are the terminal and governing links in the chain of minus or sedative applications, and as the general principles established in reference to them may be readily applied to all the intermediate links of the same chain, above mentioned—as these differ in degree of action, and not in kind of action, from the warm and cold baths, it will be unnecessary to enter into any general discussion as to their modus operandi: we will only remark, then, that any peculiarity in the action of each, and particularly of the vapor bath, will be noticed when treating of specific diseases. The effects of the hot bath being obvious and well understood, it is equally unnecessary to multiply remarks concerning it.

But the length of our article warns us that we must here dismiss this interesting subject, for the present; we will therefore defer, to some future time, that part of our "Essay" which we intended to devote to special Hydro-therapeutics, or the practical application of the principles advocated to specific diseases. In the mean time, we trust that our humble effort will tend to the establishment of more definite and philosophic views as to the modus operandi of the agent we have been considering; and we hope that physicians will remember, amid the intricate mazes of fallacious theories, and the uncertainties of a redundant Materia Medica, that Nature has provided in the greatest profusion, a remedy of wonderful, varied, manifest, and in many cases, transcendant remedial powers IN PURE SIMPLE WATER.

ARTICLE XXVI.

Treatment of Pneumonia. By C. C. Howard, Lowndesboro, Ala.

The attention of the profession has been prominently directed, for the last few years, to the treatment of pneumonia; and, inasmuch, as I have some reason to be satisfied with the plan pursued by myself, it is here briefly given.

The treatment of nearly every case of this disease, coming under my management, is begun and continued with calomel, quinine
and ipecac, aided by other remedies to be hereafter mentioned. These medicines are usually commenced with in combination in something like the following proportions for an adult:

- Calomel, grs. xvj.
- Quinine, grs. xxiv.
- Ipecac, grs. iv. Divide into eight powders.

One to be taken every three hours until the bowels are moved two or three times. Should these medicines fail to operates in twenty-four hours from the time of commencing to administer them, give oleum ricini, 3 ss, or a seidlitz powder, or some other simple cathartic; and, if necessary, in two or three hours thereafter, enemata.

It will frequently happen, however, that the patient will have taken a cathartic before the physician is called, then the calomel should be given in smaller doses, with a view to its specific action only; for, although a soluble condition of the bowels is desirable throughout the attack, purgation is to be avoided.

According to the writer’s observation, a great majority of patients will be brought under the peculiar influence of quinine, in from twelve to twenty-four hours, if the medicine be administered in doses of two or three grains, every two or three hours. But in the more violent cases of the disease, I occasionally give five grains, at intervals of three or four hours. A little experience with still larger doses of this drug, i. e. ten or twenty grains, has fully satisfied me that in any of the diseases I am called to treat, (provided there is time to repeat the smaller doses,) there is no necessity for the very large quantities of this medicine sanctioned and recommended by some others.

As has been already indicated, the calomel is given with a view to its cathartic or constitutional effect, or both; the quinine and ipecac with a view to their action especially on the nervous system and skin. In the course of the treatment, therefore, one or another of these medicines may be left out, or the whole suspended for a time, as the effect and existing symptoms dictate.

Warm poultices, powdered with a little mustard, if there is much pain, are to be applied over the diseased lung or lungs.

If the fever has not subsided by the second day’s visit, the pain greatly decreased, and the patient improved generally, I apply a blister sufficiently large to cover the entire thoracic disease. Indeed, the maxim with me is, in every case of pneumonia when
the inflammation is such as to make a blister tolerable, or when there is the probability that a blister will be required in the treatment at all, to apply it without delay, and re-apply it if necessary, that is to say, if the disease does not give way during the continuance of the first vesication.

The calomel, quinine and ipecac, generally act well as an expectorant, and some cases are treated without any other; but frequently something like the brown mixture (U. S. Ph.) is given, preferring, however, flax-seed to the gum arabic, less liquorice, with some sugar, and in most cases wine of ipecac, to the antimonial wine. The flax-seed are decidedly preferable to the gum arabic, probably on account of the oil they contain. Indeed, oily substances generally will allay cough, and I suspect cod-liver oil owes much of its efficacy in lung disease (if it has much,) to its oily nature. Latterly, I have frequently used the following oil mixture as an expectorant, and have been much pleased with its action:

R. Ol. ricini, . . . 3 ss.
    Tr. opii, . . . 3 i.
    Loaf Sugar, . . . 3 ij.
    Gum arabic, . . . 3 i.
    Aq. pip. ment., . . 3 vss. M. secundum artem.

One tablespoonful every one, two, or four hours, as occasion requires.

If the patient has thirst he may allay it with water, which it is submitted is the most reasonable, natural, efficient and satisfactory means. When he wishes nourishment, the direction is to give him a little plain food, nicely prepared. Here let it be said, out upon those heathenish preparations of arrow-root, sago, tapioca, pulv. elm, barley, beef tea, and a hundred vile dietic compounds which ninety-nine cooks out of a hundred know nothing about, and which no sane man would ever select as food for himself in health.

Though expressed somewhat in detail, such is the general plan of treatment pursued for several years, with some success, by the writer, and which he desires to recommend to those of his brethren, especially in the malarial districts of the South, who are dissatisfied with the result of the methods of treatment they now pursue. It may be added that, by a judicious application of these means the symptoms resulting from the nervous disturbance
will be removed; the skin induced to act healthily; the bowels with the viscera of the abdomen brought to the performance of their natural functions; the cough kept in due bounds; the inflammation subdued; the strength reasonably sustained, and the patient very satisfactorily cured. Usually, no other remedies have been found necessary to conduct my cases to a favorable issue. When these, however, have failed promptly to promise success, (as has occasionally happened,) then others have been selected and applied on general principles.

"But do you never bleed your pneumonia patients?" I have not bled one in several years, but should not hesitate to do so if the grade of fever accompanying the disease was synochal; but hereabouts it is nearly constantly of a lower or typhoid type.

"Don't you give aconite and phosphorus?" Never a drop—never saw but one patient who took them, and he died in two or three days with his pneumonia, marked by head symptoms, the result, however, I believed, of morphine with which the aconite and phosphorus had been aided. Hence it may be said that although opiates have been brought into the treatment suggested in this paper, still it has been found necessary to observe caution in their use; even teaspoonful doses of paregoric were observed to produce decided effects in cases occurring in adults on the same plantation.

But what of the veratrum viride? I have seen a little of the action of this medicine and consider it, both from what has been seen and from its prominent impression on the system, as insufficient to the cure of this and most other diseases; and with due respect for its introducer and approvers, venture to assert that it has received its crown, which time and future experience will greatly fade.

ARTICLE XXVII.

LETTERS FROM SAML. D. HOLT, M. D., UPON SOME POINTS OF GENERAL PATHOLOGY.

LETTER NO. 15.

MONTGOMERY, ALA., August 28th, 1856.

Messrs. Editors—It is not so strange a matter, that derangement in the functions of the liver should constitute an important feature in the character of these, and indeed, of all other fevers in our climate, if we examine into the causes which tend to interrupt the
secretion of bile, and to suspend its other important functions; as it is, that there should be in the present day, eminent men in the profession, who affect to believe that disordered functions of the liver constitute no very important or essential part in their character. How they have arrived at such a conclusion can be imagined, only by supposing, that while the scalpel and dissecting knife has failed to reveal the work of inflammation, upon which they supposed the malignant forms of these fevers to depend, they have overlooked the important fact, that nineteen-twentieths of the deaths which occur from these diseases, are the direct result of functional disorder, consequent upon nervous depression, or a change in the healthy constitution of the blood, with which inflammation has no necessary connection. Or it may be that they have looked at them through glasses, adapted to the focus of popular prejudice against certain remedies, which, Old Fogyism was once simple enough to believe, had power to regulate their disturbances. However that may be, we will first notice some of the prominent causes which give rise to disturbance in the functions of the liver, and then show the consequences which result from such disturbance in connection with these (intermittent and remittent), and other fevers in our climate, and I design to be as brief as possible.

The functions of the liver may be deranged and suspended from a loss of power in the secreting vessels, or from excess of excitability and irritation in the vessels of the liver. It may depend upon an excess or a deficient quantity of blood, upon its too slow or too rapid movement, and upon the character or constitution of the blood itself, as when, from excessive secretion and a loss of its thin or watery constituents, it becomes too thick for easy circulation; or when, from a loss of its solid constituents, it becomes too thin and too much impoverished to sustain the functions of secretion, or even its own vitality. The most common source of deranged and suspended functions of the liver is to be found in venous congestion, consequent upon an enfeebled condition of the capillaries of the portal vein, and usually attended with engorgement of the bile ducts, with thick inspissated bile, while its deranged and suspended functions, from excess of excitability or irritation in those vessels, depend neither upon venous congestion or bilious engorgement, though these conditions often attend upon it—the former being the usual attendants upon the congestion, and the latter upon the irritant and inflammatory forms of fever. Now, the dis-
turbance in the functions of the liver, which consists in an ex-
cessive or defective secretion of bile, in defective or suspended
elaboration of the nutritive materials brought to it by the portal
veins, and in the defective or suspended depuration of blood con-
sequent upon these, may, with the causes which give rise to it, be
regarded as a chain of cause and effect, having the first link in
such a loss of nervous power in particular parts, or of the whole
system, as to interrupt and disturb the circulation and to cause an
unequal distribution of blood, whereby it accumulates in certain
organs and becomes so deficient in others, as seriously to interrupt
the healthy performance of their functions, some of which, are
employed in the office of supplying material to the blood for the
support of the system, while others are employed in removing
from the blood the noxious and septic matters which are the natu-
ral product of disintegration and decay. The particular constitu-
tion of the blood most favorable for an excessive secretion of bile
is not an easy matter to determine; but the general condition of
the system which appears most favorable is a moderate degree of
excitement, such as exists in the ordinary irritant forms of disease,
the conditions of depression and congestion and of high excitation or
inflammation, being alike unfavorable. In speaking of the exces-
sive secretion of bile, I do not mean such a normal increase as
often occurs under the influence of temporary and partial excite-
ment, but when it occurs as one of the morbid phenomena usually
attendant upon particular forms of the fevers under consideration,
the effects of which are to excite excessive and obstinate vomiting
and purging, (the bile, itself, being under such circumstances acrid
and irritating,) and thus to interrupt or suspend the process of di-
gestion, assimilation and nutrition. Another effect of the exces-
sive secretion of bile is to weaken the secretory powers of the
liver, and thus to render it subsequently torpid and inactive; but
the most important effects of excessive secretion, in a pathological
view, are those which relate to the changes thus effected upon the
constitution of the blood; and for the better illustration of my
views upon this subject, I will offer a few extracts from Dr. Wil-
liams' Principles of Medicine: "Excessive secretions, if abounding
in animal matter, may not only reduce the mass of the blood, but
also affect its composition." "Urine contains a great preponder-
ance of azote, and its excessive formation from the principles of
the blood would have a predominance of hydrogen and carbon in
this fluid. The bile again abounds in hydro-carbon, the copious removal of which would leave a superfluity of azote. . . . . The secretions of the liver and of the kidneys are intended to balance one another, and the removal of carbon from the lungs, and whether the materials from which these eliminating processes are supplied, be the principles of the blood itself, or the decayed constituents of tissues, or matters derived from the food, the co-operation of all these processes will generally be required to maintain an uniformity in the composition of the circulating fluid: so, too, if one of these processes is more active than the others, the blood must suffer by the excess of those matters which the less active processes allow to accumulate in it."

We come next to consider the effects of a deficient or suspended secretion of bile, which being an important agent in the work of digestion, its deficiency necessarily enfeebles that process, and impairs the function of assimilation and nutrition. Thus, the blood to an extent becomes impoverished, which tends to diminish the tone and vigor of the whole system. Another effect of a deficient secretion of bile is to interrupt the regular peristaltic action of the intestines, which to some extent depends upon the stimulus of the bile, but being deficient in quantity gives rise to torpor of the bowels, whereby the excrementitious matters are retained for too long a time, subjected to the action of the absorbents, and thus effete and noxious matters which ought to be thrown off, are taken again into the circulation along with the new materials of supply, which the liver in its deranged condition fails properly to elaborate, and which in their unprepared state are thrown into the general circulation, thus further impairing the healthy constitution of the blood and unfitting it for the proper and healthy performance of its various and respective offices. But by far the most important effect of the suspended secretory function of the liver is, the retention and accumulation in the blood of the elementary principles for secretion, and the effete, septic and noxious matters of excretion, which are the product of disintegration and decay, whereby from a want of depuration the blood often becomes so depraved as not only to be unfit for sustaining the vital functions in their integrity, which depend upon its healthy constitution, but to exert a direct influence in the establishment of a still greater depravity, by depressing the power of the great nervous centres; and thus, the liver, lungs, kidneys, &c., failing further in their work of elimin-
ation and depuration, the blood, in a great measure, loses its vitality, giving rise to those malignant symptoms which are characteristic of the highest grades, or most malignant forms of the fevers of hot climates. To show that these remarks are not mere assumption, I will quote again from Dr. Williams, who says—"The concomitance of congestion with defective secretion, in the case of the liver, the kidneys and the mucous membrane, is well known, but either may be viewed in the light of both cause and effect. The most remarkable of the backward effects of defective secretion are instanced in case of the secretions (before treated of). The distinctive materials of the secretions of urine and bile appear to be positively noxious, and poison the system if not separated from the blood. Thus, the sudden suppression of urine or bile causes typhoid symptoms, extreme depression, and coma, which speedily end in death; and in such cases urea, or the coloring matter of the bile has been found in various organs. Where the suppression is incomplete, the poisoning process is more tardy: various functional and visceral derangements are produced, such as delirium or lethargy, dyspnoea, palpitation, vomiting, diarrhoea, dropsical effusions, structural degenerations, &c., which always proved fatal sooner or later, if the defective excretion be not restored." Again—"The positively noxious properties which excrementitious matter retained in the blood is known to possess, must be taken into account when we attempt to explain the states of constitutional irritation and depression with perversion of functions, which fevers so generally present." Dr. W. continues his remarks concerning the effects of defective secretions, to which I find a note appended, which conveys my ideas so fully, respecting a condition frequently to be seen in some of our more malignant forms of fever, particularly the typhoid, that though somewhat out of place, I cannot let it pass:—"Purpura, I have found to be often connected with hepatic congestion, and imperfect excretion of bile, and to be most effectually removed by remedies which promote the restoration of the proper secretions."

I propose now, (and there can be no more appropriate occasion,) to examine the relation which these derangements in the functions of the liver sustains in the different forms and modifications of those fevers, which have their origin in a change of the organic nerve power, to which class we consider the fevers in question (intermittents and remittents) to belong, taking, first, those which
are characterized by nervous depression and congestion, (according to our classification,) and secondly, those characterized by excitement with irritation or inflammation, and lastly, those which approach to, and assimilate the typhoid character. I have already pointed out the manner in which general causes, acting with unequal force upon different portions of the nervous system, increasing or diminishing the excitability of particular organs, thus deranging the currents and disturbing the balance between the venous and arterial portions of the circulation, causing determinations, and undue accumulations of blood, and thus interrupting the healthy performance of the functions of those organs, in consequence of which, the quality of the blood often becomes so changed as to effect further and important changes in the nerve power, and in some cases, and in some forms of these fevers to destroy, in a great measure, the vitality of the blood. But it must be remembered that the changes thus effected in the condition and quality of the blood, in the first named or congestive forms of fever, do not so much affect its vitality, as they do, for a time at least, and to a certain extent, destroy its properties as a stimulant to the nervous centres and important vital organs, such as the heart, lungs, &c., upon which their proper and healthy action depends. These changes, which consist chiefly in an accumulation of carbon, or the hydro-carbonaceous products in the blood, are usually effected in this form of fever, in the manner described by Dr. Williams, or upon the same principles, namely, that while the liver, from congestion or loss of power in the secreting vessels or both, fails to separate these products from the blood, heavy drafts are often made upon its albuminous and animal principles through the skin, kidneys and the intestinal mucous surfaces. Indeed, so uniformly is this the case, as to have induced the remark on a former occasion, that I had never met with a case of congestion and collapse which was not the result of some heavy draft upon the circulating fluids, or of some strong heavy epidemic influence. Hence it is, that when death ensues in this form of fever, it is from the loss or destruction of the organic nerve power, from a want of the stimulus of a sufficient quantity of oxygenized blood, and not from necræmia or loss of vitality in the blood, which often occurs in some of the more malignant forms of fever. It is thus, that thousands of cases of fever, pneumonia, and other diseases, not necessarily fatal in their character, have been brought to
a fatal termination from a rash and injudicious use of the lancet, emetics, cathartics, diuretics, and diaphoretics, all of which tend to destroy the nerve power, and none of them, under the circumstances, to restore the secretions of the liver. The rational indications for the treatment of all such cases are, to increase and sustain the nerve power, to arrest all excessive drains upon the circulating fluids, and to restore and maintain an equilibrium to the circulation, and last, though not least, to secure the secretory functions of the liver. The fulfilment of one of these indications will go a great way towards the fulfilment of the others, and the remediable means required will generally be few, simple and efficient, if properly applied. Keeping in view the trite adage, that "an ounce of prevention is worth a pound of cure," the periodic character of the disease can never, with safety, be overlooked. To increase the power of the nervous system, the moderate use of diffusible stimuli, such as ether, ammonia, camphor, opium, and brandy, will be found the best. As a simple stimulant, the brandy is generally to be preferred, but for the additional purpose of allaying irritation in the stomach and bowels, I have found camphor and opium, as they are combined in paregoric, to answer better than any other combination of these remedies; but to get their best effects the dose should be larger than that usually prescribed. I am in the habit of giving a tablespoonful, or half an ounce, and repeating it every hour or oftener, as long as there is a necessity for its use, and to children a proportionate dose. If the type of the disease is not positively known, it will be the safest practice to combine quinine with these remedies in proper doses, if the condition of the stomach is such as to retain it.

To restore a balance to the circulation, and to arouse the action of the remote capillaries, no means are so effectual as the steady and persistent application of dry heat. For this purpose, the patient should be confined to bed, be well invested with blankets, or bed-clothes, and surrounded with bottles filled with hot water. If, from the internal use of stimuli, and the external application of heat, a profuse perspiration should be induced before the evidences of reaction should be sufficiently manifest, it should be promptly arrested, as its continuance will have the effect of retarding, and may prevent reaction. This may readily be accomplished by removing the bottles and blankets, and sponging the whole body and limbs with ice water, which will, generally in a few minutes,
establish a reaction. If it fail, the blankets and bottles should be re-applied. In the meantime, and as soon as circumstances will admit, calomel in the dose of 25 or 30 grs. with 10 grs. of Dover's powder, should be administered; the best mode of administering which, is to rub it up with a little brown sugar, put into the mouth dry, and carried down with a swallow of water. If it should be thrown up, it should be immediately followed by an other dose of the same sort; or if the stomach should be irritable with vomiting, it will generally be the best plan to increase the dose to 35 or 40 grs. and make it into a bolus which will be easily swallowed, but difficult to throw up. This dose will generally operate in 8, 10, 12 or 15 hours, and sometimes longer, and generally the longer the better, for it will seldom fail to relieve the liver of its sanguineous and bilious engorgement and restore its secretions, and seldom requires to be repeated. That this is the most effective and safest manner of using calomel in this form of fevers, and in a like condition in other diseases, I am prepared from ample experience to testify. The liver having been thus relieved of its engorgement and congestion, the next important step is, to fortify the system against the recurrence of a similar condition of things, and this will be effected by bringing it under the influence of quinine, in anticipation of the period of depression according to the type of the disease, and its action may always be favorably assisted by confining the patient to the application of the blankets and bottles of hot water. In this manner the sweating may be substituted for the cold stage, and whenever this is done, and the secretary function of the liver is re-established, the victory will be complete.

The foregoing embraces all the principles of practice, with some slight modifications, (and most of the remedies, with the exception of some which served rather to add to the comfort of the patient,) with which I have successfully combated some of the most formidable congestive forms of disease, among which, besides the fevers under consideration, may be enumerated cholera, and dysentery, pneumonia, and other symptomatic fevers, some of which were of the most grave, and others of the most trivial character; among the latter was the case of a gentleman in this city, who laid eighteen hours in a state of collapse, or asphyxia, in consequence of excessive purging with Epsom salts for a common bile.

The next forms of these fevers which we shall notice are those
of the intermediate grades, as the irritant, congesto-irritant, and congesto-inflammatory. These are characterized by higher degrees of excitement, and generally have their type and periods of exacerbation well defined, whether intermittent or remittent. In these forms of fever, particularly the irritant and congesto-irritant, when the febrile movement becomes established, the lungs allow of such a free circulation as to furnish the nervous centres, and other vital organs, with an exuberance of oxygenized blood, giving life and activity to those organs which have not suffered from previous debility or depression, and giving rise to irritation in those which have. In these fevers, the liver being measurably freed from engorgement, and being excited by a supply of well oxygenized blood, pours out quantities of bile, which, finding its way into the stomach and bowels, gives rise to the bilious vomiting and purging which, with the delirium, and hot and moist skin and rapid pulse, are their characteristic symptoms.

The indications of treatment and the details of practice are somewhat different, in these fevers, from the congestive form, and as their tendency is to relapse into that form, when they do so, the principles of practice will be the same: they sometimes, too, spring up into inflammation, under which circumstances the practice must be modified accordingly. In these forms of fever, during the exacerbation, if the skin be hot and dry, as is often the case for a short time during its height, refrigerative drinks, and sponging the body with cold water, will generally be sufficient to reduce the excitement. Narcotic medicines and diffusible stimulants are generally required; but there is no disease, or form of fever, in which quinine is more required, or in which its best effects are more manifest, than in this dangerous form of fever, and should be used with reference both to its stimulant or antiperiodic and its tonic effects: it may, in fact, be regarded as the sheet-anchor in their treatment. Should there be (which is sometimes the case) engorgement of the liver, in consequence of a feeble and imperfect febrile reaction, calomel will be both necessary and proper; or if the flow of bile has been excessive, its use will generally be necessary, as torpor of the liver is apt to follow such action. In these cases, so large doses will not be required to affect the liver—20 gr. doses will generally be found sufficient; but if the stomach and bowels are much irritable, large doses will be found to act better, for reasons already given. If the secretion and flow of bile have
been excessive, the use of saline diaphoretics and diuretics will be proper, and necessary to carry off the excess of azotic compounds left in the blood, by the withdrawal of the hydro-carbon through the liver. If, as there is good reason to believe, the character of these fevers depend upon a loss of tone in the nervous system, with a too highly animalized condition of the blood, the rational indications of treatment would certainly be to raise the tone of the nervous system, and reduce the animal constituents of the blood. Upon these principles has our practice in such cases been founded; but in the use of remedies for fulfilling these indications, care must be taken not to excite too highly the circulation, by the use of stimuli, for fear of producing inflammation, nor to draw too heavily upon the circulating fluids, by bleeding or otherwise, for fear of producing debility, depression and congestion. These being the fevers in which, in times past, the lancet, emetics, and drastic cathartics have displayed their prettiest work of destruction.

The next form of these fevers which claims attention, having, like the preceding, their origin in a change of organic nerve power, are characterized by higher degrees of excitement, ranging from irritation to inflammation. These fevers, which are usually remittent in their character, are generally sustained or kept up by a greater amount of vigor and tonicity of the system, and a richer and denser constitution of the blood.

We have maintained that fever is a sanative effort of the system to overcome some obstruction, to relieve some laboring organ, to restore some suspended function, &c.; and we have advanced the opinion, that the liver was the seat of the origin of these fevers; and it now remains for us to examine the relations which the disordered functions of that organ sustains to the particular form of fever in question.

The torpor and inactivity of the liver, which we supppse, and know to exist in most fevers of this character, we have ascribed to the cause of long continued over-action, and this opinion is sustained, as well by the season or period when they mostly prevail, as by the character of the fever itself. The fact of their having slight cold stages, or stages of nervous depression, and prompt reaction, with a free pulmonary circulation, and a preponderance of blood upon the left side of the heart, manifested by a full, strong pulse and a hot, dry skin, which are characteristic features of this form of fever, are sufficient evidences of the general condition of
the nervous system, and that the blood is not so loaded with hydro-carbon as to cause nervous depression. From the long continued and excessive drain from the liver, which induces its debility, we might suppose that the azotic compounds would be left in excess in the blood; but the skin, if not the kidneys, (as these often perform vicarious offices for each other,) under the same influence as the liver, (atmospheric heat,) tends to preserve the proper condition of the blood, by throwing out the azote, while the liver is separating carbon. Though suspending secretions are among the characteristic symptoms of this fever, the termination of each paroxysm is usually attended with a restoration of some one or more of the secretions, generally the skin or kidneys, or both, and sometimes the liver; and thus the integrity of the blood is often preserved through many successive paroxysms.

Although I have ascribed the suspended or interrupted functions of the liver, among other causes, to excess of excitement, to which we must assign the suspension of other secretions in this fever; yet it does not follow that the suppression of the biliary secretion in these fevers depends upon that cause. The fact that this secretion is performed by venous capillaries, from venous blood, while other secretions are performed by arterial capillaries, from arterial blood: and the further fact, that the means employed to restore other secretions, by the reduction of excitement, has little or no effect in restoring the suspended secretions of the liver; but that it requires the action of a specific excitement to do it, may be taken as prima facie evidence that the liver is inactive and torpid, in these fevers, from debility. This, we believe—and it is an important matter to be kept in view—that using the proper means for the reduction of excitement, care must be taken that too heavy draughts be not made upon the blood, by bleeding, purging, sweating, &c., until other measures have been resorted to for the restoration of the biliary secretion, lest such an excess of carbon be left in the blood as to cause depression in the nervous centres. How often has it been the case, that for the want of this precaution, and acting under the belief that reduction of excitement was the great object to be obtained, patients having strength sufficient to sustain them through a series of paroxysms, have in this way been suddenly precipitated into states of extreme depression, congestion and collapse? Where there has been no such drains upon the circulation, and these fevers have pursued their course through
a succession of paroxysms, the consequence of the suspended se-
cretions will be, such an accumulation of effete, noxious and septic
matters in the blood as not only to depress the organic nervous
power, but to prostrate the animal powers also, and to a consider-
able extent to destroy the vital properties of the blood itself, and
giving rise to a train of typhoid symptoms, such as, a loss of mus-
cular strength, a feeble pulse, low delirium, or coma, showing the
poisonous influence of the blood upon the brain and other nervous
centres; a dry, brown and cracked tongue; a sallow, icteric, or
cacaverous appearance of the skin, with sudamina, petechiae, hem-
orrhage, offensive excretions, &c.—showing, from the deranged
condition and depraved character of the secretions and excretions,
an evident tendency to putrescence of the fluids, from a loss of
vitality in the blood. Hence it is, that it is not uncommon in
localities where this form of fever prevails to find cases bearing a
striking similarity to typhoid and yellow fever, in the low deliriu-
um, coma, sudamina, hemorrhage, jaundice, and even, in extreme
cases, black vomit. But similarity must not be confounded with
identity; and it must be remembered that this typhoid condition
and necræmic state of the blood, in bilious fevers, are consequen-
tial upon deranged functions, the result of organic nervous depression,
and of poisons generated in the system during their progress—while
the fevers which they assimilate have their origin in causes or
poisons which have been generated out of the system, and which,
being taken into the circulation, tend from the first to destroy the
vitality of the blood, and to prostrate the animal nervous power.
The similarity between these fevers, which has given rise to the
doctrine and arguments in support of their essential identity, belongs
rather to their termination than to their origin and progress, in
which my own observation has satisfied me that they are essentially
different. As this subject will constitute the theme of my next
letter, I will make a few therapeutic remarks, in addition to the
suggestions which I have already made, and leave the subject to
the reflection of the reader.

It seems almost a matter of supererogation to say, that the indi-
cations of treatment, in this form of fever, are to reduce the general
excitement, and restore the secretions, by raising the tone and
excitement in organs in which it is too low, and reducing it where it
is too high, and thus preserve the integrity and vitality of the
blood. Another equally important indication is, to arrest the
progress of the disease, by interrupting its periodicity by establishing a state of excitement in substitution for the stage of nervous depression. These indications will be best fulfilled by a judicious use of the lancet, and saline diaphoretics and diuretics; by calomel in full purgative doses; by opium, to allay pain and check excessive secretions; and by quinine, to break up their periodicity and arrest their progress. Local inflammations, either as cause or consequence, must be treated upon their own merits, but with respect to the general condition of the system. The treatment suited for the typhoid condition in these fevers will be noticed in another connection.

I have thus examined the character of intermittent and remittent fevers, according to the plan and classification which I at first proposed, which I think will cover all the forms and varieties (so far as their pathology is concerned) which have been noticed by European and American writers. It may be, that some of my readers may complain that I have given but a meagre account of these fevers, and a still more meagre plan of treatment. To such I will say, that it was never my purpose to enter into a minute detail of the causes, the symptoms, or the treatment of these diseases, but to consider them in the light of a general pathology, upon which their treatment was to be founded; and I regret it, if their expectations have been disappointed. It is my intention, however, to give, more minutely, the treatment in particular cases which I shall furnish in support, and in proof, of the principles which I advocate.

As ever, yours truly,

Saml. D. Holt.

Lecture on Impotence. By Prof. Trouseau.

In considering, to-day, the subject of impotence, I design to submit for your examination a question as delicate as it is important. The disease about to be treated is but recently known; it may, whatever be its nature, present itself every day to the practitioner; you will therefore understand how necessary it is to have all possible information on this point, since for the patient it concerns an entire loss of health for years, and even death, and for the physician cruel misapprehension, or, on the other hand, the complete cure of a disease apparently unconquerable.

I shall, however, call things by their true names; the exposé of facts will be conceived as far as possible in irreproachable terms,
yet clinical instruction has its indelicate side, and I am speaking
only to the professional, I will not disguise my ideas for the slen-
der satisfaction of rendering my words a little more delicate.

A seminal loss is an involuntary flow of semen, a passing out
sperm without any erotic provocation, or at least without sufficient
erotic provocation. An individual has an excremental mass of a
certain volume accumulated in the large intestine; he makes vio-
1ent efforts to eject it, and finally succeeds in overcoming the
resistance of the sphincter. This mass pressed on the prostrate
and ejaculatory conduits, it bore considerably upon the seminal
vesicles, and at the moment of its ejection, it caused an emission
of sperm. This comes under the cognizance of pathology—for in
the normal state, and even with those who are affected with obsti-
nate constipation, these parts, by their elasticity, resist the difficult
passage of hard faeces, without producing any such result.

Another individual passes, in the first jet of urine, but especial-
ly with the last drops, a thick, glairy, viscous fluid, which adheres
sometimes to the meatus urinarius; the consistence is characteristic,
the odor sui generis, and microscopic observation reveals well
formed and vivacious animacule. These are two examples of
seminal flow without erotic provocation.

To produce ejaculation, there must be a previous act of greater
or less duration; for however strong be the desire of a continent
young man, there ensues no seminal evacuation even when he is
near the person who excites the desire. Voluptuous handling of
the penis, and lascivious caresses, may occasion seminal issue, but
there is not in that case sufficient erotic provocation.

With men who are very reserved in the pleasures of love, no-
turnal pollution, the ordinary result of lascivious dreams, are,
when they occur at long intervals, and when they leave after them
no great feeling of weakness or discomforting symptom, a sign of
health and virile power, and not of feebleness or disease. But if
they succeed rapidly, several times a week for instance; if the
subject is left in a decided state of languor; if he has less ability for
work; in short, if he presents to a certain degree the general symp-
toms which we are about to mention, health exists no longer, and
disease has commenced. There also is there no sufficient erotic
provocation.

On introducing the virile member into the female genital organs,
some individuals ejaculate immediately, and very soon the erection
cesses. Here again is an involuntary seminal flow, because there
has not been due and sufficient excitement; the intromission of
the penis ought to continue for a certain length of time. When-
ever you know such a state of affairs, question and observe well
the patient.

Of these spermal issues during micturition and defecation, what
may be the consequences? Professor Lallemand, although some-
what exaggerating the effects of these seminal losses, has not failed
to throw much light upon the question. He regards involuntary
flows of sperm as favoring the development of various nervous
affections and mental alienations, and he is right; but his error
consists in having singularly amplified the importance of this
cause; indeed he attributes to it the origin of a host of maladies.

There is an aphorism which says, *Omne animal post coitum triste.*
The same idea, more poetically expressed is found in the follow-
ing line: *Laxa venire Venus, tristes abire solet.* It is a fact, that
after coition man is generally fatigued and sad. If he repeat often
the generative act, his body becomes weakened, his understanding
more obtuse, and all his intellectual faculties less active. Almost
immediately after copulation, the genital organ loses its rigidity,
and it needs new excitement and a certain interval to reproduce
an erection: there is then frigidity, but relative frigidity, since a
quarter of an hour previous *vir erat potens.* From this point to
impotence there is but a single step, for impotence is but contin-
ued frigidity.

Even when the seminal losses are not accompanied by the cynic
spasm, they are not the less an active cause of exhaustion and lan-
gor. With the woman, who experiences the spasm quite as
strongly, or even more so than the man, it may be felt an almost
unlimited number of times a day without any appreciable effect
upon the general condition. It is not that, then, but the involun-
tary emission itself, which produces the emaciating effect. An
additional proof is that in nocturnal pollutions there is no cynic
spasms; and yet, when often repeated, they end by depriving the
individual of reproductive power.

Let us now examine what constitutes the difference between fri-
gidity and infecundity. And first, listen to the relation of this
authentic fact:

At the beginning of the reign of Louis XIV., a certain lady
sued her husband for a divorce, accusing him of being unable to
cohabit. In the presence of matrons, *congressus juridicus,* the cou-
ple attempted the conjugal act, and the husband experienced the
shame of a defeat. They were divorced. The same man, accused
and convicted of impotence, married again, and had seven chil-
dren. This anecdote may, I know, give rise to various pleasant-
ries, and yet there may be deduced from it a very serious fact,
namely, that an individual reputed impotent may have more pow-
er than he himself thinks, if in spite of an incompleted erection and
precipitate emission at the moment of introducing the penis, his
sperm possesses fecundating power.

Now, the matrons declared this husband impotent because of
his apparent slight physical readiness for coition; nevertheless, as
circumstances afterwards proved, he was sufficiently puissant to
increase his family. Other individuals, on the contrary, very
amorous and very excitable with women, showing themselves ex-
ceedingly vigorous, often have no children at all.
Patients affected by seminal losses have a sad and morose disposition; they suffer from headaches, vertigo, weakness of sight, and often fall into a habitual state of hypochondriacal melancholy. Besides, they are often affected with paralysis, and especially with paraplegia and various nervous disorders, but less frequently indeed, than M. Lallemand has asserted.

Which is the organ that secretes the seminal fluid? The testicle, you answer, and you may think the question a singular one. But it is not the testicle. Tie up the deferent canal of the ram, that most amorous of animals, and you isolate the testicle completely; and yet the sexual connection takes place with the same energy, and the emission is as abundant as before. Should a hemorrhagia affect the testicle of a man, the epididymus becomes indurated, the origin of the deferent canal is closed, the same desires and venereal aptitudes exist, the emission takes place in equal quantity, but the individual remains unfruitful, and the ram just mentioned is no less so. Hence we conclude that the seminal vesicles secrete the spermatic liquid, and the testicles secrete the animalcule. The labors of M. Gosselin have perfectly elucidated this important point of physiological anatomy. We may now comprehend how young and strong men, athletic and vigorous in the duties of love, often accuse their wives of sterility; most of the latter are so fruitful, that should they burden their conscience with a breach of conjugal faith, they would readily conceive. The husbands are affected with indurated epididymis; they are unfruitful, and thus are the cause of the sterility of their wives.

Although the failing old man, who bows beneath the weight of years, and who has almost reached his century, may not have experienced a rigidity of the penis, nor have ejaculated for say forty years, yet he has still the deep voice of a man, and the angular feature of a male form. On the contrary, had he suffered castration at seventy years, his beard and hair would fall, his voice would change and assume the tone of that of an old woman. The testicle was certainly of no service to him, yet it shows that organ marks and constitutes virility even with those who make no use of the virile attribute. Take one of the fowls castrated for the table, if one testicle should by accident be left in the abdominal cavity it will graft itself on the contiguous tissues, and the animal will remain a cock; but the eggs of the hen will be unfertilized.

In stomatitis the salivary glands secrete abundantly; in an irritation of the neck of the bladder the kidneys do the same, and the quantity of urine expelled is notably increased; in an intestinal inflammation the liver and the pancreas produce a more considerable flow of bile and pancreatic fluid; in certain catarrhal affections, the action of the nasal and ocular mucous membranes is manifestly stimulated. Well, in the irritation of the veru montanum, of the prostrate mucous membrane, and of the entrance of
the ejaculatory vessels, the same thing takes place; there is an increase of secretion, and an abundant flow of the spermatic fluid. Professor Lallemand was of the opinion that in a given case of involuntary loss of semen there was always irritation of the \textit{veru montanum} and of the prostatic mucous membrane. This explained the spermatic flow.

When urine escapes during the night from the bladder of a child, without the participation of the will, it is an evidence of what M. Bretonneau has noticed: that is, that the contractility of the bladder is more exalted than during the day, when the urine was retained, and the child urinates in a continuous stream.

In sleep there is a state of erethism of the bladder, a sort of tenesmus of the vesical muscle, which contracts against the little liquid contained; hence the incontinence of urine. This takes place in the early part of the night, generally an hour or two after lying down. The same thing may occur with the seminal vesicles; an individual experiences in this region what the child does in the bladder: incontinence of the semen is analogous to incontinence of urine; and where, in the one case, there is a sphincter and a bladder inert, in the other are inert seminal vesicles and ejaculatory vessels.

Seminal losses, strangely misunderstood before the time of Lallemand, were empirically treated; but in our day when this disease has assumed a position in the domain of pathology, it has been conscientiously studied. The following positions have been established:

1st. Seminal losses resulting from a chronic irritation of the prostate or of the prostatic portion of the urethra.

2dly. Spasmodic seminal losses analogous to the nocturnal losses of urine.

3rdly. Passive seminal losses corresponding with the diurnal losses of urine in children.

These divisions have been established because they appeared to be the expression of the facts observed, and also because they conduct to therapeutic consequences of some importance. Lallemand from his point of view, thought that any medicament modifying the urethral irritation was capable of preventing the involuntary spermatic flows. He remarked that in a great number of cases the seminal loss followed a badly cured menorrhagia, and that many men ended thus by becoming frigid and impuissant; and he believed that chronic phlegmasia of the urethral mucous membrane was the occasional cause of the affection under consideration. Notwithstanding the exaggerations contained in Lallemand's work, we must acknowledge that he could derive useful results from his treatment which consisted in cauterising by the aid of the consealed sound. When the cauterisation was ineffective he had recourse to anti-blenorrhagic preparations, turpentine, copaiva, cubeb, and to tar injections into the bladder, &c.; by
these means the seminal losses were often cured, and nearly always considerably modified.

Lallemand, although not ignoring the fact that the involuntary seminal emission could be excited by other causes besides chronic urethral phlegmasia, was yet wrong in according to the latter a disproportionate degree of influence. He did nothing for the spasms of the seminal vesicles, while it is necessary to act upon them either by internal medicated preparations or by internal physical means. Belladonna administered before going to bed, in doses of from one-sixth of a grain to one grain, constitutes a powerful and ever useful medicine in nocturnal urinary evacuations, and as the latter have a certain analogy with involuntary spermatic evacuations, it follows that the same remedy succeeds in a great number of cases. So far as mechanical means are concerned, their object should be to counteract the exaggerated contractility of the seminal vesicles, and to aid the resistance of the ejaculatory vessels.

In 1825, at which time I was interne at the Maison Royale of Charenton, Dr. Bleynie, adjunct physician of the establishment, spoke to me of one of his patients affected with impotence, who, seduced by the deceptive advertisements on the fourth page of the newspapers, had consulted a quack who cured him by introducing into the anus a sort of plug of box-wood which he made him wear. It struck me to be some trumpery manœuvre to excite the exhausted sense, or some lascivious resort like those of worn-out libertines in certain circumstances, and I took no more notice of it. Ten years later, in 1835, I had some little business with a young man twenty-six years of age, troubled with decided frigidity, and yet having an irresistible desire to marry. Seeing him plunged in profound melancholy, and learning that he seriously contemplated suicide, I sought in every possible way to relieve him. Then was recalled the remarkable cure mentioned by Dr. Bleynie. Immediately I contrived a kind of plug, and prescribed it to be worn in the anus, keeping it in position by means of bandages. Scarcely a fortnight had elapsed before several erections had appeared, and the seminal losses had become less frequent. My patient got married, and was fully competent to the discharge of the conjugal duty; he is living yet, and is by no means impotent.

I sought to understand the rationale of this remedy, and was soon convinced that the charlatan had employed a means, the true scope of which he was far from comprehending, like M. Jourdain, who made prose without knowing it. In fact the plug, pressing necessarily and immediately upon the prostate and the ejaculatory vessels, hindered the spasmodic seminal losses.

Since that time I have witnessed many patients affected in the same manner, and as I grow older I witness more of them, for one does not generally go to a young physician with a complaint regarded as disgraceful, but rather to an old practitioner who is sup-
posed to be more indulgent towards these cases. The same remedy has often been by me successfully used.

Something after the fashion of the apparatus used to sustain hemorrhoids, I had prepared, an elastic band furnished with a metallic branch, very slight and elastic, at the end of which was fixed a truncated cone of ivory penetrating into the rectum and supported in front by two attached pieces connected with the band. This cone was arranged in a very solid manner; it did not inconvenience the wearer much because of the great elasticity of all its parts. Besides, if the anus became chafed, I covered the ivory with caoutchouc.

Subsequently, I endeavored to improve the apparatus and to modify in some manner the form of the cone. M. Mathieu, a surgical instrument maker, then conceived a sort of plug shaped like a lengthened olive; this was a considerable improvement, but afterwards M. Mathieu thought it possible to do without the bandage around the body, and to fix the plug or stopper without the assistance of bands. Hence he gave to the plug a sort of hourglass contraction, around which the sphincter ani closed strongly, and the large portion without kept the instrument in the proper position. An opening was made through its longest diameter which allowed the free exit of gas. The plug, retained in this manner in the rectum, presses upon the prostrate and on the seminal vesicles, and this very often suffices, after a week or two, to check involuntary spermatic discharges, to restore to an impotent man his former virile aptitudes, and to prevent uncomfortable accidents to the moral and intellectual faculties.

I would recommend this little apparatus, not only in cases of involuntary seminal losses, but also for nocturnal incontinence of urine. By employing these means, I have often seen the bladder restored to its normal tone, and have witnessed the cure of one of the most inconvenient and unclean diseases. It is scarcely necessary to observe that this plug cannot be applied to girls. In their case, in incontinence of urine, it might perhaps be introduced into the vagina at the same time that a small plug was adjusted in the urinary meatus; but you will readily perceive that you must resort to that only in the last extremity, when belladonna, and all other available therapeutic resources have failed; for the defloration of a young girl is always a serious thing, and a physician should assume that responsibility only when he has exhausted all other scientific means.

I have frequently known my colleagues in consultations prescribe cold hip baths, but I always prescribed myself very hot ones. I tell my patients besides, "heat, to a temperature which the hand can scarcely bear, four or five pounds of fine sand in a dish; tie it up tightly in a napkin and apply it to the anus, the perineum, the scrotum, and the penis; keep it there a half an hour or so until cool, and do the same to-morrow on getting up." I do
not know a more energetic anti-phlogistic than caloric, nor a more severe irritant than cold. Put your left hand into warm water, and your right into cold water, the former will be chilly all day, while the latter will be warm. When heat is applied for any length of time to a particular part of the body it gives rise to a reaction.

Thus sea-bathing is a powerful means of producing derivation towards the skin, and continued warm baths are potent agents in extinguishing its exaggerated sensibility. Physicians devoted exclusively to cutaneous affection, attack an eczema of the face by warm shower-baths repeated for two months. They put caloric in contact with the face, cold water causing eczema, which hydro-pathy proves conclusively.

The action of caloric is coercive, anti-phlogistic; the action of cold is phlogistic and fluxionary. This fact is conspicuously inscribed on the records of hygiene. Have the cook, the pastry-cook, and the baker who pass several hours a day before ovens heated to 160°, red faces? While actually before the fire they may have, but do they afterwards? Have the workmen who pour out melted ore, or who hammer red-hot iron a very high color? On the contrary, when away from the heat they are pale and sal-low. Fluxion succeeds deflection.

Observe then that it is not in a contradictory spirit that I would substitute warm for cold, but because there are really strong motives for so doing. In general, whenever I hear of any remedy, I trouble myself very little as to the source whence it comes, I revolve it about in my mind and endeavor to comprehend it. If it appears to me good and useful I apply it, and should it succeed, I recommend it. It matters little whether it comes from a quack or not if it is really worth anything. I may have for the originator the most profound contempt, but nevertheless I apply the idea for the good of my fellow-men.

A very worthy physician, Dr. Lebatard, was very much surprised some time ago, to see all his patients troubled with sprains getting well under the treatment of a certain individual. He obtained information of the process used, and accordingly, putting it into practice, he kneaded or compressed the foot until the swelling entirely disappeared, and the patient was cured. M. Lebatard, being an honest practitioner, published the fact. This I call doing a useful thing.

Returning then to the use of caloric in the treatment of seminal losses, I repeat that when this agent is applied for any length of time on a part of the body, it gives rise to a reaction. The spermatic emissions may perhaps, under its influence, be augmented for the first and second night, but they afterwards rapidly diminish and the erections become more and more firm. The compressing apparatus and caloric are then to be used conjointly with the means recommended by Professor Lallemand.
When the seminal losses are produced by relaxation, and you are assured that there exists no calculous affection, you must have recourse to cold baths and to a hydro-therapeutic régime. This state is diametrically opposed to the preceding, and it is not astonishing that an entirely different treatment should succeed. You may prescribe nux vomica internally, and apply the little compressing apparatus, etc. After very frequent spermatic losses, there may occur nervous disorders so serious as to endure even after the cure of the local affection, their proximate cause. This is an unfortunate complication, and you will have to consult those who have made these diseases—these monomanias with hypocondria, and inclination to suicide, these paraplegias and general paralysis—their special study.

Should you devote your whole attention to the treatment of seminal losses, you would soon find yourself able to relieve nearly all, and even to cure the majority of cases. But be on your guard against those patients who are very rapidly cured, who set up too soon the cry of victory, and who entertain you about their recovered energies and their well tested prowess; for those who have once suffered from involuntary seminal discharges, always run great risks, and if they are not careful, sooner or later may come the renewal of the infirmities which I have mentioned. In such case you will do well to make your patients take preventively the same medicine which may have succeeded at first, and to continue it for a fortnight two or three times a year. "Prudence," says the proverb, "is the mother of safety."—[Charleston Med. Journal.

Of the Possible Cure of Suppurative Arthritis with the Preservation of Mobility. By Dr. HYPPOLETE BLOT, Chief of the Obstetric Clinic of the Faculty of Medicine of Paris.

The object which I have proposed to myself to accomplish, is sufficiently indicated by the title of this essay. I wish to adduce facts, to prove what I have not seen mentioned in any, either of our classical treatises, or in monographs on the diseases of articulations, viz: that a termination of suppurative arthritis with the preservation of motion in the joints is, if not a common, yet at least a possible event.

To demonstrate the correctness of what I have stated in relation to the opinion of surgeons upon the different modes of termination of suppurative arthritis, it will be sufficient to adduce a few passages from the principal authors that I have been able to consult in relation to this subject.

Boyer and the surgeons who preceded him, do not describe at all the inflammations of the joints as distinct diseases; they include their history in that of white tumors, and in relation to these, they agree in stating that, when these affections are complicated with
purulent effusion into the joints, ankylosis is the most fortunate issue that can take place. To find these diseases separately considered, it is necessary to refer to treatises that are altogether modern.

In the Dictionary of Medicine we find Velpeau stating that "the least that can happen, when suppuration occurs in such cases, is an irremediable ankylosis. In other cases he may be so fortunate as to find the discharge to cease, at least in part; the general sympathies become quiet, the affection becomes purely local, permitting to the surgeon the possibility of a complete removal of the disease by amputation, or resection of the articulation."

In relation to articular ostitis, Sanson thus expresses himself: "Difficult to arrest, even in its incipient stage, it becomes almost impossible to check the disease when suppuration is established. We may then but very rarely hope for a cure, and that generally with an ankylosis of the bones."

In the same work, (El. de Path. Med. Chirur., 4th Edit.,) in reference to traumatic arthritis, we read again: "When pus is formed in the interior of an articulation, the disease becomes much more serious. Imprisoned in a capsule, the pus effects a change in the synovial sac, the cartilages become eroded, and terminates by evolving the spongy extremeties in destructive caries. Sometimes a point of the articular capsule is destroyed, and the pus burrowing in the cellular tissue forms often extensive sinuses in which it accumulates and becomes decomposed. The life of the patient is then doubly compromised, by the abundant suppuration and by the effect of its resorption; ankylosis is inevitable."

M. Bonnet, in treating of the prognosis of arthritis, concludes by saying: "The gravity of those cases in which pus is generated in the articulations, is much greater than when it results simply in the formation of false membranes. The necessity of an amputation is then always to be apprehended; and under the most favorable circumstances, if a large joint is affected, a year or two may be required to complete a cure, and then only at the expense of an ankylosis."

M. Begin, in treating of traumatic arthritis, concludes his article relative to the prognosis and termination of the disease, as follows: "In the rarest and most fortunate cases, the secretion of pus gradually abates; from all the parts surrounding the joint, from the synovial membrane as well as the cartilages, cellular and vascular granulations arise, which, coalescing, obliterate the cavity of the joint and cause a firm and solid adhesion of all the contiguous parts. The joint of the patient is then irremediably ankylosed."

In the same work, (Dict. de Med. et de Chir. Prat.,) in speaking of rheumatismal arthritis, M. Roche says: "In some cases the synovial becomes inflamed and suppurates, the cartilages become eroded and ulcerated, the bones become softened and curios, and there is no resource but in amputation or in resection of the joint."
M. Vidal is no less explicit. "In all cases in which it becomes necessary to make a prognosis," says this author, "it should be given with much caution and reserve, for it is either due to an internal cause when it is complicated and will recur, or it is of a traumatic origin, in which case it becomes extremely grave; for if the patient is cured, it will only be at the expense of the functions of the joint."

As to M. Nelaton, occupying a purely surgical point of view, and not having devoted a special article to the consideration of arthritis, he has not found it necessary to express an opinion upon the diverse modes of termination of this affection.

In the Compendium of Surgery the following occurs relative to acute arthritis: "When it terminates by suppuration and the formation of an abscess in the joint, we have every thing to fear, and amputation may become necessary to save the life of the patient."

From all the citations that have been adduced, it is evident that authors are unanimous in the opinion that suppurative arthritis always presents an unhappy mode of termination, the patient sometimes succumbing from purulent infection, in others, amputation above the joint or resection becomes necessary; and again, in others, more rare and perhaps more fortunate ankylosis occurs, and the patient is cured with loss of motion of the articulation. I will only add that, having interrogated most of our masters of surgery in reference to their having observed any other mode of termination than those above indicated, I have uniformly received a negative response.

Besides, I have searched in vain for facts analogous to those which I shall report, in the rich collection of cases published by Brodie upon this subject as well as in most of the leading French periodicals.

It seems to me, therefore, interesting to report certain observations made already some time since, which conclusively establish the fact that another and more fortunate mode of termination of suppurative arthritis than those before indicated, is possible; a cure with preservation of the motion of the joint.

These observations, although but three in number in the human species, added to analogous ones related by our colleague, M. H. Bouley, at the Society of Biology, as occurring in the equine species, will suffice to prove the possibility of the mode of termination we have designated. Future researches will determine in what proportion of cases of suppurative arthritis we may venture to hope for so happy an issue.

One of these observations I owe to the kindness of M. Monod, who communicated to me the principal details of the case in 1848, during a conversation in reference to what I had myself seen. The second case was observed by myself in a patient introduced into the infirmary of the Maternity of Paris, to which I was then
attached in the capacity of intern. Both cases occurred in females soon after parturition. I will hereafter state what importance should be attached to this peculiarity. It is moreover to be well understood that we do not here treat of those multiple articular abscesses which are observed to occur in puerperal fever, but of mono-articular arthritis, freely developed and uncomplicated with any grave constitutional condition.

In regard to the third case, it is borrowed from the clinics of Prof. Nelaton, who has kindly permitted me to treat of it in connection with the two preceding cases. This was a case of traumatic arthrosis of the knee, developed in a young man of eighteen years.

Case 1. The female P., aged eighteen years, a laborer, of good constitution and sanguine temperament, was born of healthy parents and had herself never been sick. Menstruation commenced at sixteen years of age, and continued regularly until she became pregnant. During her entire pregnancy she suffered not the least illness.

The 20th Feb., 1848, without appreciable cause, she gave birth to a male child weighing 2500 gr. at the eighth month of her pregnancy. A vertex presentation in the . The birth was natural after a labor of eighteen hours. No accident occurred during the day, but during the night a violent attack of colic occurred, for which she was conveyed to the Infirmary.

Feb. 21st. Simple cataplasms with laudanum were sufficient to calm the pains.

Feb. 23d. The abdominal pains had entirely ceased. She however complained of pain in the right foot, which she compared to spasmodic pain. No marked local affection, however, could be detected by the most careful examination. Slight redness and tumefaction on a level with the internal malleolus was all that was observed; but all movement of the tibio-tarsal articulation was very painful. Six leeches to the part tumesced; a bath, followed with a large linseed cataplasm. To secure the influence of position, the limb was elevated upon a cushion, and to avoid the pain of motion, the foot was fixed by bandages to a hoop that sustained the covering. General condition good; no appreciable fever.

Feb. 24th. The patient was much relieved; she suffers now but very slightly, when the limb is moved. Poultice renewed twice a day.

Feb. 26th. The amelioration is not continued; the tumefaction has increased, especially in the malleolar region; fluctuation, however, is not distinctly perceived. Treatment continued.

March 3d. Since the 26th Feb. the tumefaction has continually

* The gramma is about equal to 15 grains Troy.
augmented notwithstanding the means employed, and fluctuation in the malleolar region has become quite distinct. An incision, about an inch in length, was made on both sides of the joint, from which flowed a considerable quantity of laudable pus, mixed with strings of synovia, easily recognized by its yellowish color and syrupy consistence permitting it to be drawn out in long filaments. A soft probe introduced into the internal incision, penetrated more than two inches in depth, and passed without difficulty into the tibio-tarsal articulation. On withdrawing it, it was readily made to pass into several of the other-tarsal joints by changing its direction. Without the joint the probe was arrested by fibrous bands. When the foot was moved, upon the leg it caused a sharp pain, and a rough friction sound, a sort of crepitation, could be distinctly heard and felt. This fact was confirmed by all the persons present at the time. Same position of the limb maintained, and the same treatment continued.

March 4th. Very evident improvement; pain of the joint less severe; suppuration more abundant; proportion of synovia greater than yesterday. Treatment continued.

March 9th. Suppuration diminishes from day to day, the pus becoming more liquid and the proportion of synovia increasing. Pains none when the foot is not moved. Same treatment continued.

March 15th. Suppuration is completely arrested, and the pain has quite ceased. Even slight movements of the foot excite no pain. Same treatment continued.

March 18th. The incisions are nearly closed; the tumefaction having ceased, the joint is restored to its normal volume; the patient is able to move the foot without pain; the friction sound and crepitation have also ceased. The cataplasm was replaced by a simple unguent.

March 26th. The incisions being healed, and the movements painless, the joint may be considered as completely cured.

March 29th. The articulation again, and without assignable cause swollen and painful, and the surface somewhat red. Cataplasms. Elevation.

March 30th. All the symptoms augmented, and apparently a slight fluctuation felt about the malleolus internus. An incision gives issue to nothing but blood. Treatment as before.

March 31st. Patient improved; suffers but slightly; incision uniting.

April 2d. Symptoms all disappeared. Treatment discontinued. Rest in bed.

April 5th to 17th. During this period the patient gradually acquired the power of using the limb without inconvenience, and left the maternity without the slightest trace of ankylosis or rigidity.

Case 2. Madame X., thirty-five years of age, of a nervous
temperament and good constitution, had a very fortunate first accouchement, with the exception of an unusual nervous prostration which lasted five or six hours. Lactation was quite normal.

She became pregnant a second time, and now suffered much more than during her former pregnancy. A removal and the cares of a large household caused her during the last months to undergo great fatigue. Her accouchement, however, took place at term without accident, but shortly after that, singular nervous phenomena again occurred, accompanied this time with anguish and insomnia. The mammary secretion was but slight, and towards the fourth or fifth day after accouchement, simultaneously with the cessation of the nervous symptoms, a serous effusion occurred in both knee joints, which continued to increase notwithstanding every effort. At the end of a month, the effusion in the right knee was entirely absorbed, but the distention of the ligaments had been so great that the tibia was partially luxated outwards, and the motion of the articulation was considerably impaired.

In the left knee resorption of the fluid could not be obtained, and the joint remained greatly distended. Perfect rest with cauterization were quite ineffectual. During the second month, an acute inflammation supervened without appreciable cause, terminating in suppuration; a spontaneous and abundant discharge of pus soon occurred from the interior and external part of the articulation. No serious constitutional symptoms occurred; several counter-openings were made at different points, and the healthy suppuration gradually diminished. About a month after the opening of the purulent abscess of the joint, the knee was cured. From that moment, the motion of the joint was gradually restored, but the power of flexion could never be carried beyond a right angle.

Case 3. Traumatic suppurative arthritis cured without loss of motion of the joint. A shawl-maker, eighteen years of age, punctured the left knee joint with the point of the scissors employed for shearing the shawls. At first he gave very little attention to the injury, but after the eighth and tenth day, a considerable swelling of the joint occurred, and the patient solicited and obtained permission to enter the Hospital St. Louis.

The case presented all the signs of a penetrating wound of the knee. A very extensive, white, edematous tumefaction had taken place resembling that of phlegmasia alba dolens. The lips of the wound were flabby, whitish and edematous. A sero-purulent liquid issued from the wound, increased by pressure upon different points of the articulation. Adopting the treatment extolled by M. Fleury, the entire joint was enveloped in a vesicating plaster.

Notwithstanding this measure, the tumefaction remained unabated.
Suppurative Arthritis.

1856.

The liquid flowing from the wound became more and more purulent, until it no longer contained any serum, and every day a considerable discharge from the original wound and from the counter-openings took place. Perfect rest in a wadded splint.

Somewhat later, the discharge again became more scrofulous, which character augmented until it finally ceased. In six weeks the wound was completely closed. The power of motion in a slight degree still existed. The difficulty at first existing became less and less, and at the end of three months, the patient presented himself to M. Nelaton, having completely recovered the motion of the joint. He now returned to his former occupation of shawl-making.

To the preceding cases I will add another, addressed to the Society of Biology, by Prof. H. Bouley, of Alfort. Our colleague presented the temporo-maxillary articulation of a horse, in which suppurative arthritis had existed for some time. A considerable quantity of pus flowed from the diseased joint, especially during mastication to which the animal was urged, notwithstanding the pain it produced, by the intensity of hunger. Desiring to ascertain the state of articulation, M. Bouley sacrificed the animal, and on examination found that the cartilages from both the temporal and the inferior maxillary surfaces had completely disappeared, and were replaced by red and vascular vegetations, densely crowded together, covered in spots with smooth osseous plates. The synovial membrane had entirely disappeared.

M. Bouley is of the opinion that the joint which, at the death of the animal, was suppurating but little, was in process of healing, and founds this opinion upon observations in a considerable number of other cases in the same species of animal. It appears, indeed, that suppurative arthritis of the temporo-maxillary articulation is not rare in the horse, and it is often observed that the animal, urged by hunger, maintains the freedom of the joint by use, and a complete cure is effected after a longer or a shorter period.

It is scarcely to be expected that similar observations should be made upon other joints, especially upon those of the legs; for, as is well known, when a horse has received so serious an injury as to be incapable of any service, he is not deemed worthy of preservation.

Such are the facts to which I desire to call the attention of surgeons.

I will endeavor now in a few words to present the reflections that flow very naturally from them.

When we seek to account for the happy exceptions which I have presented, two interpretations present themselves prominently to the mind, one having reference to the special conditions in which the first two patients were placed; the other may be applied to the mode of treatment which one of them received. The two cases referred to, presented themselves in fact during the puerperal pe-
riod. May not this condition itself furnish or suggest an explanation of the cause of the fortunate issue of these cases? I am inclined to adopt that opinion.

The facility, and especially the rapidity with which pus is formed in the puerperal state, may furnish an explanation of the effusion and accumulation of pus in joints, without the occurrence of such profound lesions of the synovial membranes and cartilages as to render ankylosis inevitable; the transformations have not had time to become so grave as to prevent the articular surfaces from returning to their normal condition and a consequent restoration of their function of motion. This view of the subject, yet hypothetic, may hereafter acquire the value of a demonstration, if opportunities occur of examining the elements of the joints affected with suppurative arthritis in puerperal females, who may have succumbed from intercurrent diseases.

But until direct proof can be adduced, the hypothesis here put forth may apparently derive support from the peculiar facts observed in our second case, to wit, the presence of a distinct quantity of pure synovia mingled with the laudable pus furnished by the joint; the relative quantity of the former always increasing as the arthritis progressed towards a cure. How, indeed, can the continued secretion of synovia be explained without admitting that the synovial membrane has preserved its integrity, at least to some extent? This observation seems moreover to possess some direct practical utility. From the light of this observation, the surgeon should, if I am not mistaken, be capable of making a clearer diagnosis in a given case. The prognosis being as much less serious, and the prospect of cure the greater as the proportion of synovia in the fluid that issues from the joint when opened, is augmented. This hopeful anticipation being moreover enhanced, if, while from day to day the synovia increases, the purulent secretion suffers a corresponding diminution.

The preceding reflections are especially applicable to the first two cases, and might seem to cast a doubt upon the possibility of obtaining similar success in ordinary cases. But the third case is quite different. In this, we find a genuine suppurative arthritis not occurring in a puerperal female, but in a young man of eighteen years. Taken in connection with the case of comparative pathology above cited, this case seems to compel the admission that suppurative arthritis is susceptible of cure without loss of motion of the articulation.

As to the treatment, perhaps, that was not entirely foreign to the success obtained. It will be recollected that, as soon as suppuration became manifest, free incisions were made on both sides of the joint.

By thus avoiding the serious accidents indicated by all writers on this subject, as the separation and infiltration of muscles, denudation of bones, &c., &c., perhaps, also by thus diminishing the
granulations of the synovial membranes, the wasting of the cartilages, the inflammation, suppuration, and sometimes the necrosis of the osseous extremities of the articulation, we shall augment the chances of curing the diseased joints and preserving, if not the complete, yet the greater part of the mobility of the articulation.

I am well aware that, at first sight, these views seem to be contradicted by what daily experience teaches in regard to the gravity of wounds communicating with joints; indeed, it is well known that such lesions are the more serious and more frequently followed by suppuration in proportion to the size of the wound and the greater facility of admission of air into the cavity of the articulation. These objections, however, are believed to be more specious than well founded, for the two elements of the comparison are not analogous. In one case, we dread to see suppuration supervene; in the other, it has already occurred, and measures are not indicated to avoid it, but to render it as harmless as possible. The best means for attaining this object will probably be to avoid the prolonged contact of the pus with the synovial surfaces, by giving it a free and early exit.

It is hardly necessary to add that these reflections are submitted to the mature judgment of our distinguished surgeons with great reserve and hesitation.

Whatever may be the influence of treatment, the cases of which we have given the principal details prove that in suppurative arthritis the surgeon ought not to despair of curing the patient, and preserving the functional integrity of the limb.—Archives Générales, and Peninsular Journal of Medicine.

On a New Method of Inducing Premature Labor. By E. Noeggerrath, M. D., of New York.

In the following communication, I desire to give an account of a new method of inducing premature labor, which was practised, for the first time, as far as I know, in New York, on Monday 2d June, 1856. I wish to draw the particular attention of my professional colleagues to this method, because I am thoroughly convinced that it is superior to other methods, and will hereafter surpass all the different modes resorted to up to the present time.

The question of the induction of premature labor has not been discussed to the same extent in this country as on the European continent. This is readily explained by the fact, that deformities of the pelvis are much more rarely met with in this part of the globe. But the time will come, and is rapidly drawing near, in this country, that the average number of labors ending naturally, without operative assistance, will lessen in a remarkable degree. The immense immigration of a far from wealthy and well-shaped people on the one hand, and the strong tendency to high city life
on the other, must show their influence upon the coming generations. How different is the experience of the practitioner of today from that of the late Dr. Dewees, of Philadelphia, who enjoyed so large an obstetrical practice! In his "System of Midwifery" he states, that he observed only three cases of deformed pelvis during his professional career, while during eight weeks' residence in this city, I have met with the same number of contracted pelves. These three occurred in ten obstetrical cases, which I had partly under my own care, during the absence of Dr. G. C. E. Weber, partly in consultation with him. In one of them a difficult forceps' operation was required; the second one was terminated by application of the craniotomy forceps; the third one gave origin to the present report.

While in this country but two ways of inducing premature labor are generally followed, viz:—tapping of the foetal membranes and the exhibition of ergot—in Germany, France, and England, there are no less than nine methods for accomplishing the same purpose.

They are as follows:—

1. The opening of the membranes.* Macaulay, Kelly, Sched.
2. Dilatation of the os uteri, by the application of compressed sponge. Brünninghausen, Kluge, Simpson.
3. Partial separation of the Chorion from the internal wall of the womb by fingers or instruments introduced into the orifice. Hamilton.
4. Administration of internal remedies, such as secale cornutum, etc. Ramsbotham, Bongiovanni.
5. Plugging of the vagina with lint or an india-rubber bag filled with water. Schaeller, Hüter, Braun, (Colpeurynter).
6. Injections of warm water into the vagina by the ascendant douche or the irrigator. Kiwisch von Rotterau.
7. Injections of warm water into the cavity of the uterus.—Schweighauser, Cohen.

The great number of methods for inducing premature labor, shows that the older ones had to be ameliorated a great deal, as well in regard to promptness as to the safety of the mother and the child. But it would exceed my proposed limits should I endeavor to discuss the value of the different methods. I will confine myself to the report of the case, and some remarks necessary to present our proceedings in its true light.

Case.—Mrs. G. M., born in Germany, living now in New York, presents, in her external appearance, the form of a healthy, well-

* We give a chronological succession of the methods; the names adjoined belong partially to the inventors, partially to the chief advocates of the single operations.
shaped female, though she is of a rather short stature, and exhibits on a closer examination, the well-known form of knock-kneed rachitic lower extremities.

In her first confinement, which took place about fourteen months ago, she was attended by Dr. G. C. E. Weber. This eminent practitioner was compelled, in this labor, to perform the operation of craniotomy, in consequence of the malformation of the pelvis. He advised her then to be delivered artificially, before the full term, in case of a second pregnancy, not only for her own safety, but because it would afford a chance of her having a living child. The latter circumstance being of considerable importance, induced the lady to follow the advice of her physician. Conception again took place at the end of October, or the beginning of November, 1855, for at that period, her courses, always regular, ceased. She expected, therefore, to be confined during the first week of August, 1856, with which statement we could thoroughly agree upon a first examination made towards the end of May. The superior margin of the fundus uteri was then found between the umbilicus and the processus xiphooides, the womb being equally developed on both sides. The foetal pulsations we could easily observe on the right side, at a level with the umbilicus, while the feet were distinctly felt near the left upper portion of the uterus. Corresponding results were obtained by a vaginal exploration. The pregnancy was decided to have advanced to the end of the eighth lunar month, with a large-sized living child, having a cranial presentation.

The pelvis was a model of rachitic deformity. The promontory of the sacrum protruding forward and towards the left side of the pelvic cavity, diminished the antero-posterior diameter to $2\frac{1}{4}-2\frac{3}{4}$ inches, while the lateral diameter remained unchanged in extent; the outlet of the small pelvis was rather enlarged in consequence of the widely open pubic arch and the flattening of the sacral curvature. The whole basin presented but a very small degree of inclination. The general state of health of the patient was satisfactory. On Monday, 2d June, about 11 o'clock in the morning, Dr. G. C. E. Weber and myself proceeded to perform the operation of inducing labor after the method of Schweighäuser, Cohen. The woman was placed upon her back with the nates projecting somewhat over the edge of the bed, and the feet supported by two chairs; an elastic catheter, of the ordinary size, was introduced into the mouth of the uterus and pushed upwards, with the intention of bringing the instrument between the anterior wall of the uterus, and the foetal membranes; the point of it entered the womb to the extent of about four inches,—then, with a syringe adjusted to it, we injected about 7 ounces of water, heated to $90^\circ$ or $100^\circ$ Fahrenheit. As soon as the fluid touched the internal surface of the uterus, the woman complained of uneasy feeling in the abdomen, and we distinctly felt the uterus in a state of rigidity, which
lasted for several minutes. After a time, the finger was removed from the external opening of the catheter, when a portion of the water was rejected through the instrument with considerable force. The withdrawal of the tube was followed by another escape of some water. During the following thirty minutes the uterus was in an almost continual state of contraction with but very few and short intermissions of flaccidity. Besides a slight degree of excitement and little headache, the woman's state of health, as well as her pulse, proved to be unchanged. Towards noon the pains grew stronger, but less in frequency, with long intervals.

At about 7 o'clock in the night, the pain lessened in a degree that we thought it proper to make another injection. This was applied in the same way with the exception that we did not change the ordinary position of the patient in her bed, because the lips of the os uteri were already so much retracted by the previous pains, that the introduction of the catheter would meet with no difficulty at all. Whether the water was injected with a somewhat greater force than at the first time we cannot decide, but it all remained in the uterus, and the operation was followed by a sudden enlargement of the womb. Mrs. M. experienced a very distressing pain in her abdomen; much more so than she did at the former injections. It made such an impression upon her system, that she fell into an almost unconscious state; the pulse sunk suddenly, so as to be scarcely perceptible; her face instantly became purple, and her breathing very much embarrassed. Half an hour later, when she recovered from these symptoms, she was seized with a violent chill, which lasted for nearly two hours. This was followed by a feverish condition, general heat, and a pulse of 130 in a minute. This alarming state gradually subsided, and a renewed succession of strong uterine contractions commenced. At 7 o'clock, A. M., of the following day, we were told that she endured almost incessant labor pains during the last night. At this time we found that the vaginal cervix had disappeared completely, the os uteri was opened to the size of a silver dollar, the well-filled bag protruded into the vagina with every recurring pain. Now we could ascertain, beyond question, a vertex presentation. At 9 o'clock, A. M., the os uteri dilated to its full extent, and the membranous cyst broke, while it was protruded almost to the external orifice. At that time, the vertex was just engaged in the entrance of the pelvis. Passing over the very interesting peculiarities of this cranial parturition, it will be sufficient to say, that it required a full hour of time to bring the head down through the brim of the small pelvis, notwithstanding those tremendous pains, which are only witnessed with rachitic females. But when the greatest circumference of the cranium had passed the upper part of the pelvis, then, one of these violent pains was sufficient to drive the head through the whole cavity, and at once out of the labia externa up to the shoulders. The entire parturi-
tion, from the time of the first injection, was achieved in less than twenty-four hours.

The child, though born in a weak condition, was soon brought to the most satisfactory state of breathing and crying. After the placenta was removed by the ordinary manipulations, the uterus proved to be well contracted. The mother's condition was satisfactory, and has continued favorable.

The first man who conceived the idea of inducing premature labor by injection of water into the uterus was Dr. Tac. Fried. Schweighauser, of Strassburg. In his excellent work, "Das Gebaren nach der beobachteten Natur," etc, Strassburg and Leipzig, 1825; he recommends to throw a quantity of warm water into the womb for that purpose. But, as he never seems to have practised it, we must attribute the whole merit to Dr. H. M. Cohen, of Hamburg, who first of all introduced this proceeding into practice. He called the attention of the profession to this method in a thesis written in the year 1846. After this we received by the way of different medical journals, accounts of upwards of 30 cases in which Dr. Cohen's directions were imitated, all of which speak in the highest terms in its favor. The operations did not fail, in one instance, to have the expected result. The expulsion of the child followed from the time of the first injection of water, to an average, in three days, the shortest instance being six hours, the longest six days; the number of injections required was from 2 to 13.

Not one case is reported where there were any bad consequences to the mother, while the life of the child proved to be less threatened by this proceeding, than by any of the others. The symptoms of general nervous excitement, witnessed in our case immediately following the injection, have been mentioned by all the different authors, though in a less conspicuous degree. All agree as to their subsiding without any further injury to the patients. The quantity of water to be injected at once was, in almost all the cases, no more than two ounces; the quantity recommended by Dr. Cohen. He also prescribed the use of tar-water, as being somewhat irritating, and, therefore, more prompt in its effect; but afterwards only common water was used, and if heated from 90° to 100° Fahrenheit it will answer all purposes. Instead of the 2 ounces we took 7 or 8 ounces, in order to have a more decided effect, and we introduced the instrument as far as 4 inches into the uterus. The principle requisite for obtaining complete success is, to push forward the tube behind the internal orifice of the uterus, so that the point of the instrument, being in the womb, enters a distance of at least 2 inches from the edge of the os, in order to bring the fluid in contact with the internal wall of the body of the uterus itself. The instrument to be used may be any tube that is at hand; an elastic or a metallic, male or female, catheter will answer the purpose. Experience has proved, that the operation worked much slower, or even not at all, when the full quantity of
the water is poured out again. Therefore, it is advisable to keep the cylinder closed at its lower end for some time until the contraction of the uterus, which immediately follows the injection is subdued. If, after withdrawing the instrument, water begins to be discharged in considerable quantity, it will be necessary to plug the vagina.

The interpretation of the fact, that premature labor can be induced in this way, is not very difficult. By the contact of the internal surface of the womb with a heterogeneous body, (water) the organ must be excited from its previous inactivity, and, therefore, we see that the injection is immediately followed by a state of uterine rigor; this soon gives way, and genuine contractions set in, in order to remove the fluid. If this is really accomplished in a short time, we see that the pains die away again; but if the water has been injected high enough, and is retained, the contraction will continue. Still, it cannot be doubted that, after a while, the liquid is absorbed, and uterine action would perhaps subside once more, were it not that the separation of the foetal membranes from the uterus,—induced already by the act of injection itself, and advanced by the previous contractions—stimulated the uterus to activity.

A case like this is sufficiently intelligible of itself, and the details of this method are so obvious, that a further exposition of them would be unnecessary. It did not in a single instance fail of immediate success, neither injuring the mother nor jeopardizing the life of the child, it presents all the advantages connected with a labor where the membranes remained entire.—[N. Y. Jour. Med.

Llandolfi's Treatment of Cancer.

M. Llandolfi's mode of treating cancer having gained considerable notoriety in Austria, he repaired some time since to Paris, in order to induce the surgeons of that capital to endorse the favorable opinions expressed by some of the Vienna practitioners. The French hospital surgeons accordingly appointed a committee of their body to examine into the stability of their claim, and this was done by assigning to M. Llandolfi a certain number of patients at the Salpêtrière. The committee, after watching the results of his treatment of these cases, has just made its report, and the following are the conclusions arrived at. From these it would seem that the remedy is destined to fall into the oblivion that has engulfed so many of its predecessors.

1. M. Llandolfi's method is made up of both local and internal treatment. 2. The latter, which consists in the administration of chloride of bromine, does not possess the slightest special therapeutical value in the treatment of cancer. 3. The local treatment consists in the application of the following caustic: Chloride of
bromine, three parts; chloride of zinc, two parts; chloride of antimony, one part; liquorice powder, one part. 4. Of these substances, the chloride of zinc and chloride of antimony have been long known and employed as caustics. These two chlorides combined in the same proportions as in Canquoin’s caustic, form the only portion of M. Llandolfi’s preparation that is really active. 5. The chloride of bromine only acts by raising the epidermis, and exposing the denuded part to the action of the other two chlorides, a result easily obtained by a vesicatory applied just before employing Canquoin’s paste. 6. M. Llandolfi’s preparation is, in fact, only this caustic masked by a coloring and odorous body, which, although it leaves the causticity unimpaired, destroys the precision of application. The chloride of bromine has only spoiled the mixture by rendering it fusible, much more difficult to manage, and much more uncertain in its results. 7. As the caustic so modified does not secure the patient from erysipelas or consecutive haemorrhage, it can be no longer affirmed that its employment is exempt from danger. 8. Infinitely more painful than most others, this caustic induces most severe suffering, which in general lasts for six or eight hours, and may be prolonged for more than twenty-four hours. Opium and other narcotics are powerless against these pains, while their duration forbids our even thinking of employing anaesthetics. 9. the mode of application is quite vicious, and opposed to the rules of art. In place of attempting to at once destroy the cancerous tumor, M. Llandolfi attacks it by partial and successive applications—a necessary consequence of employing a caustic, the extent of the action of which cannot be calculated. 10. These successive applications, repeated on some patients fifteen or twenty times, induce a total amount of suffering hitherto unheard of. 11. They prolong the treatment indefinitely, and infinitely delay cicatrization. 12. The incessant irritation thus induced is of nature to favor relapse, as experience has only too well shown, and as all know who are imbued with sound surgical knowledge. 13. This method, applied by the inventor himself to nine cases of cancer of the breast and three cases of cancroid, has given the following results: Of the nine cases of cancer of the breast, two have died, four have suffered a notable aggravation of the disease, while in three cases in which cicatrization took place, the disease immediately after reappeared; that is to say, in no case did a cure result. Of the three cases of cancroid, a cure took place in one; in another there was cicatrization, with reappearance of the disease, and in the other an exacerbation took place that necessitated the amputation of the limb.

To sum up, M. Llandolfi’s method can only be applied to certain cancers; it is more painful and more uncertain than several other modes of cauterization; and it is in particular, inferior to Canquoin’s method, of which it is only an altered copy. Like all the other methods of treatment, it may succeed in destroying certain
tumors and cicatrization may follow; but it is quite powerless for the prevention of relapse, which it would seem rather to provoke, and so far from forming a step in advance, it adds but another to the illusions that so abound in the history of cancer.—[Bulletin de Thérap. Med. Times and Gazette.

On Paralysis from Muscular Atrophy. By M. Cruveilhier. (Archives Générales de Médecine, Jan. 1856.)

In this paper, Cruveilhier claims the priority of the observation of muscular paralysis* apart from any lesion of the nervous centres. He gives a brief account of the first cases which came under his notice, in 1832 and 1848, and describes the surprise he felt when after, in the first instance, having diagnosed disease of the spinal cord, he found no trace of any affection of that part. He details two later cases which satisfied him that the anterior roots of the spinal nerves exhibited a degree of atrophy closely corresponding to the amount of muscular degeneration upon which the paralysis depends. We must content ourselves with directing our readers' attention to these cases,† and giving an abridged summary of the author's views on the subject. They are as follows:

1. There is a species of paralysis, partial or general, which gradually affects the voluntary muscles, without involving the general or special sensibility, the intellectual or emotional powers, or any function of nutrition, except that bearing upon the muscles.

2. This muscular paralysis is the result of the progressive atrophy of the anterior roots of the spinal nerves, together with the progressive atrophy of the muscles; the posterior roots of the nerves, the spinal cord, and the encephalon remaining sound.

3. This form of paralysis is analogous to that resulting from section of a nerve.

4. This form of paralysis fully confirms the doctrine of Sir C. Bell, relative to the functions of the anterior and posterior roots of the nerves.

5. These observations establish the fact, previously not suspected, that the anterior roots of the nerves exercise a definite influence over nutrition.

6. These observations establish an independence of the anterior spinal roots, from the antero-lateral tracts of the cord, in which not the slightest disorganization was traceable. From this the author concludes,

7. That the anterior roots of the spinal nerves do not spring

* It is but just to Dr. Edward Meryon (who published some interesting cases of granular and fatty degeneration of the voluntary muscles in the Medico-Chirurgical Transactions for 1852,) to state, that he was the first to observe the disease in England, and apparently without any knowledge of Cruveilhier's discovery.

† See, also, British and Foreign Medico-Chirurgical Review, Oct. 1855, p. 410.
from the anterior-lateral tracts of the cord, but necessarily from the central gray matter.

Those interested in the whole history of symptomatology and therapeutics of progressive muscular atrophy, we would refer to a very complete memoir on the subject in all its bearings, by Dr. Adolph Wachsmuth.* He does full justice both to Cruveilhier and Dr. Meryon's claims, but points out that the 'Medical Gazette' of 1831,+ contains an article by Dr. Darwall, in which that writer describes several instances of muscular atrophy with paralysis of the upper extremities, but attributes them to previous disease of the peripheral nerves. Dr. Wachsmuth has collected altogether sixty cases of the affection.—[British and For. Med. Review.


This paper contains two series of observations on the temperature of the surface in persons suffering under intermittent fever. The first contains eleven cases of intermittents of different types, in which the observations were taken every hour, or at least frequently in the course of the day; the second comprises three cases, in which the observations were made during the paroxysms themselves, and generally every five minutes. The state of the pulse and the respiration were generally noted at the same time. The number of thermometric observations amounted to about 260. They were taken by placing the thermometer in the armpit. The following are the general conclusions arrived at by Dr. Michael:

1. An increase of temperature from the normal state or the lowest apyretic condition, at first slow, shortly before or at the commencement of the rigor, rapidly and continuously advances, and then attains its maximum by successive intermittent advances.

2. The temperature remains at its maximum height for a period never exceeding two hours, but generally much less.

3. The diminution always takes place less rapidly than the elevation. It is affected in a graduated manner, each depression of the temperature being followed by an arrest.

4. The sensations of the patient are not in the ratio of the changes of temperature. The temperature is above that of the normal condition, both at the commencement of the rigor and at the termination of the sweating stage. The maximum temperatures occur either during the hot stage, towards the termination of the cold, or at the commencement of the sweating stage. These remarks apply to the various forms of intermittent fever.

5. In most of the cases, the maximum lay between 32° and 33° R. (104°—106½° F.) The highest maximum was 33¾° R.

6. The duration of the paroxysms varies considerably in the cases presenting a tertian type. The limits are sixteen and thirty-two hours; in the quotidian forms they are nine and eighteen hours.

7. The duration of the period of increase is always shorter than the period of decrease in the quotidian forms; in the tertian it is sometimes shorter, sometimes longer.

8. During the free intervals, the temperature generally falls below the normal temperature, still, the instances—especially of the quotidian fevers—are not rare in which it is at least severally degrees (Réaumur) above the normal temperature.

9. After the exhibition of sulphate of chinidiné (the salt commonly employed in Dr. Michael's cases) in doses of from ten to fifteen grains, there is either no recurrence of an increase of temperature, or a single increase of almost the same intensity, but with less violent subjective symptoms; or again, the temperature rises, though to a lower degree, and the symptoms are scarcely perceptible; or, finally, there is a feeble increase of temperature without any subjective symptoms. Only one case occurred in which there were two increases of temperature.

10. During convalescence, the temperature is generally under the normal elevation, but may occasionally rise a few tenths of a degree above it. At times there are evening exacerbations or evening remissions, or it is the same morning and evening.—[lb.]

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**On Dislocation of Tendons. By Dr. Sebregondi.**

Dr. Sebregondi, judging from his own observations, believes this accident to be far more frequent than, judging from the little notice of it taken in the manuals, it is supposed to be, it being, indeed, often confounded with partial or complete dislocation or sprain; and at other times explanatory of the success occasionally obtained by empirics by their manipulation of injured limbs.

The dislocation of the tendon may be either simple or complicated with rupture of the sheath; the consequences in the latter case, especially in diseased subjects, being sometimes very serious. The tendons especially liable to be dislocated are those which run a long course from the muscular belly prior to their attachment, lying, for the most part, in a groove, and either surrounded by a sheath, or protected by the adjoining cellular tissue. To these especially belong the tendons of the long head of the biceps brachii, as also the tendons of the teres major and minor. A case of each of these dislocations is narrated by the author, as also another occurring at the elbow-joint, though this is of much rarer occurrence. The accident is often met with in the vicinity of the wrist-joint, especially at the posterior surface; and is frequently
there accompanied by rupture of the sheath, and not unfrequently
gives rise to ganglionary formations. The knee-joint is also not
unfrequently the seat of these dislocations, the accident not only
occurring to the tendon of the sartorius, but also to that of the
biceps cruris, in the vicinity of the head of the fibula. The same
accident often happens near the ankle-joint, and is frequently mis-
taken; but ganglionary formation is a far less common result than
at the wrist-joint. The author relates an interesting case of dislo-
cation of the tendon of the plantar muscle occurring in a child.


New Rules for the Treatment of Asphyxia. By Dr. Marshall Hall.

I. Send with all speed for medical aid, for articles of clothing,
blankets, etc.

II. Treat the patient on the spot, in the open air, exposing the
face and chest freely to the breeze, except in too cold weather.

I. To excite Respiration

III. Place the patient gently on the face (to allow any fluids to
flow from the mouth).

IV. Then raise the patient into the sitting posture, and endea-
vor to excite respiration,
1. By snuff, hartshorn, etc., applied to the nostrils;
2. By irritating the throat by a feather, or the finger;
3. By dashing hot and cold water alternately on the face and chest.
   If there be no success, lose no time, but

II. To imitate Respiration.

V. Replace the patient on his face, his arms under his head, that
the tongue may fall forward, and leave the entrance into the wind-
pipe free, and that any fluids may flow out of the mouth; then
1. Turn the body gradually but completely on the side, and a
   little more, and then again on the face, alternately (to induce inspi-
   ration and expiration);
2. When replaced, apply pressure along the back and ribs, and
   then remove it (to induce further expiration and inspiration) and
   proceed as before;
3. Let these measures be repeated gently, deliberately, but effi-
ciently and perseveringly, sixteen times in the minute only.

III. To induce Circulation and Warmth

1. Continuing these measures, rub all the limbs and the trunk
   upward with the warm hands, making firm pressure energetically;
2. Replace the wet clothes by such other covering, etc., as can
   be procured.

IV. Omit the Warm-bath until respiration be re-established.
To recapitulate, I observe that—
1. If there be one fact more self-evident than another, it is that
artificial respiration is the *sine qua non* in the treatment of asphyxia, apnoea, or suspended respiration.

2. If there be one fact more established in physiology than another, it is that within just limits, a low temperature conduces to the protraction of life, in cases of suspended respiration, and that a more elevated temperature destroys life. This is the result of the admirable, the incomparable, work of Edwards.

3. Now, the *only* mode of inducing efficient *respiration*, artificially, at all times and under all circumstances, by the hands alone, is that of the postural manoeuvres described in this paper.

This measure must be adopted.

4. The next measure is, I have stated, to restore the *circulation* and *warmth* by means of pressure firmly and simultaneously applied in the course of the veins, therefore upward.

5. And the measure not to be adopted, because it tends to extinguish life, is the warm bath, *without* artificial respiration. This measure must be relinquished.

These conclusions are at once the conclusions of common sense and of physiological experiment. On these views human life may, nay, must sometimes depend.—[Lancet.

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**On the Treatment of Nevus by Vaccination.** By M. Legendre.

(M. Legendre believes that the ill success which has attended this practice in the hands of some, is chiefly due to the defective mode adopted. He sums up his observations as follows:

1. **Choice of the Lymph.**—It is of the greatest importance that all the vaccinated spots should take, as it is from their multiplicity and confluence the inflammatory process results sufficing to transform the erectile tissue into non-vascular cicatricial tissue. When but two or three from among seven or eight punctures succeed, the number is usually insufficient for the production of the requisite amount of inflammation, while it prevents the repetition of the operation. The lymph should be therefore taken directly from the arm of the child that supplies it, the lancet being charged afresh after each puncture, and the operation performed slowly, so as to involve only the superficial lymphatic net-work of the skin.

2. **Number of Punctures.**—There is nothing fixed with regard to this, depending as it does upon the size of the nevus; and while one nevus may require seven or eight insertions, double this number may be necessary for a very extensive one. It may be laid down as a general rule, that a sufficient number of punctures must be made to admit of the edges of the pustules, after their complete development, running into each other. M. Pigceaux states that this end will be attained by making the punctures at the distance of a centimètre from each other.

3. **Place of Vaccination.**—Most authors direct the inoculations
to be made in the erectile tumour itself, and not at its circumference; but this practice not infrequently gives rise to hæmorrhage, which alarms the friends. It is generally very difficult to make several punctures in the excessively thinned skin of an erectile tumour, without piercing the erectile tissue; especially as it is impossible so to control the movements of the child, as to be certain that the lancet will not penetrate farther than we desire. Notwithstanding this inconvenience, direct inoculation must be resorted to whenever the nævus is situated on the face; for if we vaccinated around its circumference, the ensuing cicatrix would be larger than the tumour itself. When the nævus is out of sight we need not mind this, and by vaccinating near to, without implicating the erectile tissue, we avoid all danger of hæmorrhage, while we can produce a circle of pustules that entirely surrounds the tumour. The erectile tissue more and more invaded by the increasing pustules, diminishes in size, inflames, and becomes connected together with the pustules into a large, dry, blackish crust. When this falls off, the place of the nævus is found to be occupied by a smooth cicatrix, which is either quite white or scattered over with a few red isolated spots, the size of a small pin's head, and devoid of elevation, the further development of which is prevented by the surrounding cicatricial tissue.

M. Legendre points out the desirableness, before vaccinating infants, of inquiring whether any erectile tumour exists, in order that the opportunity of so treating it may not be passed over.


**Vitis Vinifera Radix, as a Diuretic.** By A. J. Simmons, M.D., of Rankston, Monroe county, Ga.

From a considerable experience, I have found the Grape-vine root to be one of the best diuretics known to me. Scarlet fever has been in my section for some length of time; having many cases of genuine *Anasarca* to treat as a sequel of that disease, I have given the Grape-vine root a fair trial. In a number of cases nothing else prescribed, the water moving off rapidly. I have the root procured, and then placed upon a heated oven-lid and there burnt into ashes.

B. Two table-spoonsful of the ashes, pour on a pint of boiling water. The patient drinks it *ad libitum*.

Another prescription often used—B. Two table-spoonsful of the ashes, 3 ii. bitartrate potss., pour on a pint of boiling water. Taken *ad libitum*.

Case. A case of *Anasarca* of the lower extremities. The subject was a stout negro woman, *enceinte* some months, plethoric, robust, hearty woman. Her legs, thighs and left labia much enlarged.

B. Grape-vine root, two table-spoonsful; bitartrate potass., 3 ii. Pour on a pint of boiling water. Patient taken the above pre-
Conclusions on Antimonial Poisoning. By B. W. Richardson, M.D.

1. That antimony, both as regards the symptoms it induces, and the pathological results arising from its administration, excites effects in the dog identical with those it excites in man; and that experiments on dogs thus afford a fair basis of comparative research.

2. That the skin, peritoneum, cellular tissue, lungs, all absorb antimony in its soluble form with as much certainty as the stomach; and that, whether introduced by any of these channels, or by direct transfusion into the blood through the veins, the diffusion of the poison is equally complete, and its effects specifically the same. (Absolute.)

3. That, after such mode of introduction, antimony may be detected in the vomited and purged matters, in the stomach and in the contents of the stomach, in the intestines and their contents, and in the lungs, liver, kidneys, blood, urine, heart, and even in serum infused into cavities, if such be present. (Absolute.)

4. That consequently, the detection of antimony in vomited or purged matters, in the stomach or the contents of the stomach, or in the intestines or in their contents, can no longer be considered as any judicial scientific proof that the poison was introduced into the system by the alimentary canal at any part, as has been assumed. (Absolute.)

5. That antimony being absorbed with great rapidity wherever introduced, the point of surface at which it is taken into the system may afford slighter indication of the presence of the poison than any other parts of the organism: ergo, that the point of introduction can never be proved by mere chemical analysis.—(Absolute.)

6. That antimony applied locally, so as to admit of being rapidly absorbed, seems to excite but little amount of local injury, although it exerts marked local effects when brought by the blood to any surface for elimination: ergo, that the appearance of intense redness or inflammation in the stomach or other part of the alimentary canal, in supposed cases of death from antimony, is no scientific proof, nor yet indirect evidence, that the poison was received into the system by this canal. (Absolute.)

7. That the symptoms of poisoning by antimony by large doses are, as a general rule, those of vomiting, purging, and rapid collapse; and that the same symptoms, somewhat modified in their course, result from small doses repeated frequently during a prolonged period.
8. That to this rule exceptions occur; to-wit, that antimony, when thrown into the system in a large dose, and in such a way as to prevent its digestion, as by direct injections into the veins, may destroy the muscular power so suddenly that the symptoms of vomiting and purging may not present themselves. And, again, that when introduced very slowly, as by application to a small wound, it may also destroy by producing simple exhaustion, without the specific symptoms of purgation or vomiting.

9. That in all forms of antimonial poisoning, death occurs mainly from failure of the circulation; the respirations being continued after the cessation of the heart’s beat.

10. That the pathological appearances incident to antimonial poisoning are—(a) general congestion; (b) marked fluidity of the blood; (c) intense vascularity of the stomach in the course of the greater curvature, and, in some cases, of the rectum and other parts of the canal, but without ulceration; (d) a peculiarly pale yellow or occasional dark glairy secretion on the alimentary surface. Lastly, and contrary to the statements of Magendie, antimony seems to excite no other pulmonary lesion than simple congestion.

11. That the election of antimony by different parts of the body is as yet an open question; that the liver, however, would appear to be the structure in which it is most collected when the administration is slow and in small doses; and that the elimination of the poison is attempted by all the secreting surfaces.

12. That, in rapid poisoning, the fatal effect seems due to direct chemical change in the blood, and to indirect effect therefrom on the heart; while, in slow poisoning, there is superadded an interference with the assimilative powers, the result of the lesions excited in the stomach and other parts of the alimentary canal.


On the Treatment of the Hydrocele of Children. By Dr. Lihhart. (Froriep’s Notizen, 1856, vol. ii. No. 4.)

In hydrocele, met with immediately after birth, there is usually a wide communication with the abdominal cavity; and as there is frequently a fold of gut at the upper part of the tumour, it sometimes occurs that hernia and hydrocele alternate—so that two practitioners, called at different times, may give different opinions respecting the case. This form scarcely requires any special treatment, since the serum returns, during the horizontal position, into the cavity of the abdomen, where it is easily resorbed. The only treatment likely to be of any use would be the keeping the neck of the processus vaginalis compressed by a bandage.

It is otherwise when the hernia occurs later after birth, when it is tense, and the communication with the abdomen is either very small or absent, the processus vaginalis being closed above. In
the first case, the fluid will often return slowly into the abdomen, although it may occupy six or eight days in so doing; and such cases deceive the attendants of the child into the belief that the means employed have produced the resorption of the fluid. The deception is the more likely, as in very great narrowing of the upper mouth of the processus vaginalis, which is often more than an inch long, re-position cannot be induced by the taxis. This difficulty of returning the fluid is often mistaken for an impossibility, and unnecessary operations resorted to. Indeed, the diagnosis of complete closure is very difficult. When such closure does exist, the case does not differ from one of ordinary hydrocele of the tunica vaginalis.

The indications of treatment are, the removal of the fluid and the closure of the processus vaginalis. With regard to the first, resorption frequently occurs spontaneously, but it can rarely be influenced by the practitioner. The various stimulants employed for this purpose are inoperative, or may be even hurtful by irritating the scrotal skin. When they seem to have been of avail, an aperture has, in fact, existed. The resorption, however, is remarkably facilitated by a subcutaneous incision of the processus vaginalis, which allows the fluid to become effused into the scrotum, where it is rapidly absorbed. A fold of the scrotum should be raised, and a concave tenotomy knife passed in flat between the scrotal skin and the serous sac, so as to make an incision of from one to one and a half inches in length in the processus vaginalis. Dr. Linhart prefers this to seeking to obliterate the vaginal process by means of pressure applied to its neck, which is either ineffectual or cannot be borne, or to the employment of injections, which at this age are not without danger.—[Brit. & For. Med. Rev.

By George Viner Ellis, Esq., F.R.C.S., Professor of Anatomy in University College, London.

It would be vain to attempt to represent this important communication by an abstract; all that can be done is to draw attention to some of the most striking points in it. After a minute description of the three more or less perfect strata of involuntary muscular fibres which constitute the muscular substance of the bladder, viz.:—an external or longitudinal, a middle or circular, and an internal longitudinal or submucous, stratum—the author proceeds to trace them through the rest of the genito-urinary apparatus. With respect to the prostate, after a minute description of its structure, the author deduces that it is less of a glandular than of a muscular body, and is only a largely developed portion of the circular muscular layer that invests all the urethra behind the bulb or spongy portion, and which is continuous, without interruption,
with the circular fibres of the bladder. As the prostatic enlargement includes only part of that muscular stratum of the urethra, the author proposes the name orbicularis, vel sphincter urethrae, for both the prostate and the prolongation around the membranous portion of the urethra; while he would confine the old term prostate (without the word gland) to the thickened and more powerful part near the neck of the bladder. The submucous layer of the bladder is traced throughout the whole length of the urethra. A muscular covering of the vesiculae and vasa deferentia, consisting of two layers of fibres, (one longitudinal, the other transverse,) is next described; and the paper concludes with a very elaborate description of the sheaths surrounding the spongy structure of the penis.

Mr. Quain was very glad that Mr. Ellis, of whose accuracy the profession might be assured, had given so good a description (which had long been wanted) of the muscular structure of the prostate gland, and he should be glad to see, from the same pen, or from some other, an account of the glandular structure.


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Comparative Diagnostic Peculiarities of True and False Croup.

<table>
<thead>
<tr>
<th>TRUE CROUP</th>
<th>FALSE CROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comes on slowly and insidiously, the paroxysms occurring during the day or night.</td>
<td>Comes on suddenly, and almost always after the subject has been for some time asleep.</td>
</tr>
<tr>
<td>Voice, hoarse, soon becoming weak and reduced to a whisper.</td>
<td>Voice, hoarse, but does not become whispering.</td>
</tr>
<tr>
<td>Cough, hoarse and frequent in the beginning, but becomes short and smothered.</td>
<td>Cough, boisterous and hoarse.</td>
</tr>
<tr>
<td>The symptoms do not remit, but gradually grow worse and worse.</td>
<td>Occurs in paroxysms. After the paroxysms are over the child feels well.</td>
</tr>
<tr>
<td>Can, in a majority of cases, see false membrane on tonsils.</td>
<td>Fauces slightly red—no false membrane.</td>
</tr>
<tr>
<td>Duration, from four to eight days.</td>
<td>Duration, seldom more than two days.</td>
</tr>
<tr>
<td>Fatal, in a majority of cases.</td>
<td>Seldom fatal.</td>
</tr>
</tbody>
</table>


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I have seen, within a few months, in different journals, several articles on the subject of "ingrowing toe-nails," but none, I think, answering just the indications and going no farther.

A simple and effectual operation may be commenced by an incision made by inserting a strong narrow knife nearly over the joint, extending to the end of the toe, deep by the side of the bone traversing the diseased side of the nail.
Next, an elliptical incision just within the skin, uniting with the two ends of the first cut; thus excising the "hypertrophied flesh" (which nearly always exists) with the offending portion of nail.

It is desirable to remove the "matrix" of that side, but not essential, for a more proper direction will be given to the subsequent growth. Excising one side generally will cure both, as the nail has room to push over. If the disease is entirely removed, the wound heals by first intention, making a less painful and more perfect cure than removal of the whole nail in the usual manner.

[Peninsular Jour. of Medicine.

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EDITORIAL AND MISCELLANEOUS.

Prevention of Yellow Fever.—The following communications were written for the Augusta newspapers, by the senior Editor of this journal, with the view of directing public opinion to certain measures for preventing the importation of yellow fever into this city. Inasmuch, however, as the arguments used for this locality are equally applicable to others in the interior, we transfer them to our pages, in the hope that they may be useful at some future time, if not for this season:

The announcement that yellow fever has made its appearance in Charleston, is well calculated to create the apprehension that this pestilence may again be carried into the interior. It therefore becomes the duty of every community, thus threatened, to take such steps as may be deemed most effectual for the prevention of such a calamity, as well as for allaying the fears of the people. In determining the measures to be adopted for this purpose, we need not lose time in discussing the question, whether yellow fever be contagious or infectious, in the technical application of these terms. Let us keep within the limits of the simplest observation, and we shall find it to be now well established, that it can be carried about from place to place, by ships, steamboats, closed railroad cars, and indeed by any conveyance in which a certain quantity of the pestilential air may be transported. Before steamers were in common use, yellow fever was confined to seaports. Steamboats extended its ravages to the towns along the shores of the Mississippi; and railroads have now taken it into our inland towns, and otherwise secure villages. In 1854, when the disease prevailed in both our seaports, it was conveyed by railroad, not only to this city, but also to Macon and Union Point in this State, and to Blackville and Columbia, in South-Carolina. There is no reason why the same may not be done again, unless the people resolve to protect themselves, cost what it may.

The course to be adopted by Augusta, under existing circumstances, seems to me very simple. Let our authorities, forthwith prohibit and pre-
vent from entering the city, any box-car, or closed car of any kind, whether containing merchandize, baggage, or the mails, which may come from an infected district. It will be with the railroad companies to determine whether they will put their freight upon open trucks in Charleston, or do so at a point nearer Augusta—but this should not be less than three miles.

Should the disease show itself in Savannah, measures should be adopted with regard to our river boats. Inasmuch as their freight is usually stored upon deck, where no air can be confined, it might be sufficient to cause their hatchway, or other communications with the interior of the boat, to be closed and sealed by an officer some miles below the city, and not allowed to be re-opened until they return to the same place. It would be safer, however, to prohibit their nearer approach to the city than two or three miles, from whence the cargo might be brought up by open boats.

In again referring to the subject of yellow fever, I beg leave to premise that my object is not to excite, but, on the contrary, to quiet the fears of the timid. When the first cases of yellow fever in Charleston were announced, the writer, in common with many others, apprehended that the disease would assume the character of an epidemic, and thus show the whole atmosphere of that city to be contaminated. In such event it was deemed possible, at least, that portions of the infected air, by being conveyed in close vehicles, might occasion the disease in other places. It was, therefore, thought to be the duty of communities thus exposed, to take some steps to protect themselves from so dreadful a scourge. But communities of men are wonderfully prone to extremes of apathy and panic; so, that the very people who would not close a door to keep out an enemy, would leap out of the windows at the first sight of his grim visage. They who are most indifferent to the means of prevention, would, probably, be the very first to fly and to spread terror in their path, if it were even whispered that a case of yellow fever had occurred in their town. To persons thus constituted, it is, perhaps, useless to offer any argument; but, there are some who assign specific reasons for inaction under existing circumstances. The object of this paper is, therefore, to examine their positions.

1st. It is said to be inexpedient or unnecessary to adopt measures of prevention before the disease has become decidedly epidemic in the seaport, because, until it has assumed this character we have no evidence that the atmosphere is contaminated. I must confess that this is the strongest ground upon which I have heard our present inaction predicated, and if the measures of prevention I have recommended involved any serious inconvenience to the community, it might perhaps be well to consider whether we should submit to it or incur the risk, however slight, of importing the poison before we had acquired the positive certainty that it lurked about the streets of Charleston. When cars are daily, and almost hourly,
leaving the seaport, it would be a nice question to decide, on which day, or at what hour it would be safe or otherwise, to take in a cargo of air for diffusion in our midst. This might be done with impunity on one day, and yet be fraught with fatality on the next. Inasmuch, therefore, as the proposed remedy is simple, and would not subject the people to any serious inconvenience, prudence certainly dictates its adoption, upon the first appearance of a disease, which experience teaches us will almost invariably assume the epidemic form, sooner or later, after its introduction into a southern seaport. Yellow fever usually commences its work insidiously, and spreads from point to point, without any such premonition as might be available for escape. Hence it is, that many take it in portions of the city previously supposed to be exempted from its influence. The first intimation we have of the extension of the poisoned area is, the loss of human life.

2d. Some urge in extenuation of their inaction, the fact, that yellow fever has often been in our seaports without being brought here, and that, inasmuch as it has visited us but twice, and with an interval of fifteen years, we have but little cause of apprehension now. I would certainly be the last to exaggerate the degree of our liability to this pestilence, and am free to acknowledge that I do not now, and have never entertained the belief, that yellow fever could often prevail epidemically in Augusta, however sadly it might decimate the seaports. It is not necessary here to give my reasons for this conviction; but I should say that I am well satisfied that yellow fever cannot originate here, and consequently that our only danger is from importation. That it is not always brought to us when existing in our seaports is certainly no reason why we should not endeavor to keep it away entirely.

3d. Again: It is objected that the measures of prevention proposed are insufficient, because, while they provide against the importation of pestiferous air, they do not prevent the introduction of the disease by persons, or in other words, by contagion. Now, I do not believe that the yellow fever can be communicated by man to man, and it must be obvious to all that contagious diseases can be restricted to no particular locality or section of country, but must and do invade every part of the habitable earth, whereas yellow fever has never done so. But it would lead me farther than the limits of this paper will permit, to discuss the question of contagion, and I prefer to admit for the present all that is claimed on this subject by the most decided contagionists, to-wit: that while yellow fever is usually propagated by atmospheric influence, it may sometimes, under peculiar circumstances, which rarely present themselves, be transmitted by contagion. Even, according to them, therefore, its contagiousness is exceptional, whereas atmospheric importation is the general rule. If the disease, in localities in which it does not originate, owes its existence to atmospheric importa-
tion in 99 out of 100 cases, and to contagion but once in a hundred, will we not have accomplished a great deal by getting rid of the atmospheric cause? It would indeed be a narrow policy that would not avert one evil, because it could not ward off all others.

4th. I have heard it intimated that we have no legal right to carry out the proposed measures; that we cannot dictate to the rail-road companies the kind of cars upon which they may bring freight into the city. I am not sufficiently well versed in the law to answer this objection; but the right of self-protection is a very high one, which I doubt not would be at once recognized by the officers of all rail-roads. They would unquestionably acquiesce in any measure proposed by the city authorities for the protection of human life.

Lastly: there are some who, momus-like, with their fingers upon their lips, object to our saying anything upon the subject, lest a panic be produced and the trade of the place injured. I repeat what I said at the onset: that my object is to quiet and not to excite apprehensions. The people already know their danger. Let them now also know that we are doing all in our power to make them safe, and that we have full confidence in the efficacy of our exertions, and their fears will be allayed. The people know very well that what has happened may happen again unless measures of prevention be adopted. Adopt these, then, and you will do more to restore confidence than by the observance of any mystical silence. True manliness looks the enemy in the face and quietly prepares for defence.

American Contributions to Medical Knowledge.—We are happy to lay before our readers the following communication received from a highly respectable source. We sincerely hope that the subject may be duly weighed, and that our project may be speedily realized.

Messrs. Editors:

I am much pleased with your views in relation to the establishment of a common medium for the collection and diffusion of “American Contributions to Medical Knowledge,” as expressed in the last No. of your Journal. I have long felt the want of something of the kind, and doubt not that many others have experienced the same feeling. There is surely no reason why we should not have and sustain such a semi-annual as you propose, to be devoted exclusively, if I understand you correctly, to American contributions culled from all the medical journals of our country. Such a publication would be of incalculable advantage to us all, and be the means of securing us an honorable position abroad, where we are now comparatively unheard and consequently unknown. Keep the ball in motion, and your views will find a hearty response from one end of the union to the other.

MEDICUS.
On the Use of a new Solution of Iodine in various Skin Diseases. 

By Dr. Max Richter.—The solution is made thus: Half an ounce of iodine is to be dissolved in an ounce of glycerine, and subsequently half an ounce of iodine is to be added, which completely dissolves in a few hours. In the experiments made with this solution, it was applied to the surface by means of a hair pencil; the part was then covered by gutta percha paper, fixed at the edges with strips of plaster, so as to prevent the volatilization of the iodine. This was removed after twenty-four hours; and for a similar time cold pledgets were applied. Burning pain, more or less intense, but rarely of more than two hours' duration was produced. The repetition of the painting depends on the appearance of the part and the amount of disease. The conclusions of the author are—1. That the iodine thus employed acts as a caustic; 2. That while it possesses considerable curative powers in respect of scrofulous and syphilitic affections, it is especially useful in lupus; 3. That the solution dissipates even deeply-seated tubercles of lupus; and may be applied for this purpose to the most tender surface without fear of eroding it; 4. That when the solution was applied only to the part of a disceded surface, the remainder was, nevertheless, influenced; 5. That it is particularly serviceable to large and superficial sores; 6. That after a series of paintings, and when the sore was almost healed, the local pains greatly increased in intensity.—[Wochenblatt der Zeitschrift der k. k. Gesellsch. der Aerzte zu Wien. Brit. and For. Med. Chir. Rev.

Anaphrodisiac Property of Bromide of Potassium.—Thielmann, recommends this remedy as an excellent anaphrodisiac, in satyriasis, nymphomania, spermatorrhoea, and in the frequent and painful erections experienced during gonorrhoea. He has given it in the dose of two to three grains, every two or three hours: with this is joined a vegetable and milk diet, and all acids are forbidden.—[Med. zeit. Russ., in Gaz. des Hop. Boston Med.Jl.

Acid Beef-Tea.—The following is the formula for an acid beef-tea, which Mr. Paget has recently introduced into use in St. Bartholomew's Hospital. It was originally suggested by Liebig, and is intended, in cases of great debility, to supply the stomach with fluid nutriment, which, containing its own acid, will task the digestive powers in the least possible degree.

Take of beef, veal, or chicken, chopped fine, half-a-pound,

" of hydrochloric acid (strong), four drops,

" of water (cold), eighteen ounces,

" of common salt, a pinch.

After macerating for an hour, strain off the fluid, using no pressure. The remaining meat may be treated with half-a-pint of water, and a second solution obtained. If the fluid be not clear a second straining will be needed. The solution does not taste acid, and is very palatable. Pepper, or other spice may be added, according to the patient's taste.—[Med. Times and Gazette.

Chilblains.—Professor Berthold (Archives Générales) employs decoction of nutgalls as a bath, or applied by means of pledgets. The itching and burning disappear in two or three days, but in old cases the remedy must be continued longer. Oak bark (1 lb. to 2 lbs. of water) may be employed as a poultice. These remedies are not applicable to broken chilblains.—[British and Foreign Med. Chir. Rev.