ORIGINAl AND ECLECTIC.

ARTICLE XVI.

The Value of Diet in Disease. By G. F. Cooper, M. D., of Americus, Ga.*

Although much has been written upon the value of diet, and the function of digestion, comparatively nothing has been done to direct attention to its value in disease, and to the importance of that function—though altered—in a morbid condition of the body. Among the many elaborate treatises upon these subjects—especially digestion—we know of none of any practical worth to the profession in the management of disease. In this respect we think we are, to some extent at least, at fault; and while we would dislike to see any abatement of the interest in the investigations on the one hand, it is very desirable, on the other, to awaken an interest not hitherto manifested. We propose, in this paper, to speak of the value of diet in disease, under two propositions:

1st. Its use in supplying the wastes of the tissues; and,

2d. In the maintenance of the function of animal heat.

And if these two uses of diet have justly deserved, and received, so much attention, physiologically, we feel assured their importance is in no sense inferior, nor should they receive less consideration in a pathological point of view.

It would be supererogation to dwell upon the part that diet

*This paper was read at the recent meeting of the State Medical Society, and ordered to be printed.
takes in supplying those wastes, constantly in progress, in a normal condition of the animal economy; this is more ably and elaborately discussed in our standard works, than it can possibly be done here. All recognize the necessity of these wastes being replenished, and look alone to the introduction of food, for the accomplishment of this end; yet, in disease, we can look indifferently upon the rapid destruction—moving apace before our eyes—without regarding it as a matter of much moment, and never dreaming how this devastation is to be stayed, or the wastes to be supplied.

In the treatment of much the largest proportion of diseases, one of the greatest desiderata is to husband the strength of the patient; ordinarily, however, we conclude, in view of the anorexia and impaired function of digestion, we can by no means look to diet to aid us; but by avoiding the imprudent use of depletents, to keep in store the requisite amount of strength, to enable the patient to endure, at least, the early period of his attack, though it have considerable duration. Emaciation, and consequent loss of strength, in abstinence, make much more rapid progress, in disease than in health, because there are other conditions present, which aggravate and expedite the work of destruction. It is true, there are no expenditures or wastes, from exercise, which are ever going on in health; but, whatever the advantage gained in this respect, it is far more than outweighed by the abnormal conditions intimated above; and however much this fact may be overlooked, in disease, it is one of no mean import, and should not be lightly regarded, but every effort should be made to counteract those morbid influences which wear down the energies of the subject, and which we, not unfrequently, though unwittingly, aid, by what is believed to be the only practicable and admissible plan of treatment.

In health, the processes of decay and replenishing are constantly active, but the supply is more than adequate to the demands of nutrition; for nature deposits in the adipose substance, a reserve, which is always furiously attacked in disease. The question is not to prevent waste—which is really depurative—but to provide material from without, and thereby preclude the drafts which would, otherwise, be made upon these resources which are provided, not only for a respectable embonpoint, but for our endurance both in health and disease.
The blood is the great medium through which all these important operations are effected; and while it conveys those nutritious substances which build and keep up the human fabric, it is no less the temporary receptacle of the noxious and effete matters, which it gathers in the remote points of its circulation, for the purpose of transmitting them to their proper places of exit. This being the office of the blood, we readily perceive how important that it be kept pure, and prepared to supply the various tissues and organs with such material as is required for their proper nutrition and functions. Now, one of the principal means of preserving the blood pure, is by proper supplies from without, and whenever they are cut off, every circuit the blood makes, of course only serves to augment its impurities; but when it is frequently receiving these accessions from external sources, whatever be the nature of its impurities, they are to a greater or less extent, as the case may be, constantly undergoing dilution, and the result is, not only the wastes are supplied, but all the organs are kept in a state of preservation, whereby they are enabled to perform their several functions better, and the laws of the economy, if not perfectly maintained, continue with, comparatively, little interruption. The blood, when deprived of its supplies, through the ordinary channel, would naturally invite them from the tissues, with which it is everywhere in contact; and here a remarkable difference occurs—for, while in health it receives its nutritious materials at or very near the centre of circulation, and the debris at its remote points, now, indeed, that is when external supplies are suspended, it takes in both at the same point, and the same instant, which must insure the more intimate mixture of the two qualities, thereby deteriorating the blood much more certainly than if its supplies had been received through (as they are mainly) the thoracic duct. In this state of things, a double, and, to some extent, unnatural action is forced upon the capillaries—whereas, normally, they are required only to receive the debris of the tissues; now, they must also receive the nutritious elements, because of their failure from without; and how far this action may go to engender irritation, and excite and aggravate disease, cannot, in this connection, be determined.

Second Proposition: the maintenance of the function of animal heat.—Whatever may be the contrariety of opinion of the exact
nature and source of animal heat, its existence and importance in
the animal economy are known to all, and it is of equal moment
that we elevate an abnormally low degree, as we must reduce an
abnormally high one; for while the powers of the system sink ra-
pidly in the former case, they are no less exhausted in the latter.
In disease, we most frequently meet with an exalted degree of this
function; and it would appear, from a cursory view of this subject,
that the continued introduction of food would not only add heat
to the flame, but serve to perpetuate the trouble. We think,
however, this cannot be shown; but, on the contrary, as has al-
ready been intimated, the absence of food, necessarily, begets this
very condition of the system, and the use of diet, instead of ex-
citing, it seems reasonable to believe that its effects would be
soothing, and would rather allay than provoke excitement. If we
arrest the supply of water to the engine, the heat is not diminish-
ed, but increased; and as cold is often used to arouse the function
of innervation, and thereby restore lost heat, as well as to reduce
it when raised above the normal degree—so, in the body, the pru-
dent introduction of food may both excite and diminish, augment
and lessen the temperature. To say the least of it, we cannot hope
to subdue an abnormal degree of heat, by studiously withholding
food, when it is excited and kept up by other causes operating
upon the fluids of the body, and changing their nature and unfit-
ting them for their accustomed actions; but simultaneous with
other treatment, we must essay, by the use of proper diet, to dilute
and weaken, and, possibly, entirely overcome those causes, which,
in the absence of food, would likely become intensified and great-
ly promote disease. The wrecked seaman, when the short supply
of provision is exhausted, which, in haste, he snatched from the
sinking ship, will prey upon his own flesh; and so of the body,
when its external supplies fail, it turns upon itself, until its inward
resources are consumed—every round of the blood lessening the
store on hand, as well as adding to its own impurity, and soon the
operations of nature cease.

In discussing the other phase of this proposition, that is, when
the temperature is abnormally low, our way is apparently more
clear, though we are not sure that stronger reasons can be adduced
in its support; however, none will question the necessity of the
rapid introduction, not only of food, but the most powerful stimuli,
to excite and bring up the degree of heat, especially where its
failure is obviously owing to the want of adequate nourishment. When the animal heat falls suddenly below a healthy degree, we may reasonably suspect the nervous system, with which this function is intimately associated, and over which it exerts a manifest influence and control, to be involved; in this case, the use of food may, perhaps, be regarded of secondary importance, but by no means to be neglected.

As before stated, the blood being the medium through which this important vital action is effected, it can only do so when its character affords the requisite elements. It is apparent when the blood is deprived of its food from without, from which it derives those elements, required to meet and combine with the oxygen of the air, received through the lungs, it must be not only materially, but injuriously modified: nor can its drafts upon the supplies in store be responded to with that promptness, nor will they yield those qualities or elements, which the blood requires for a proper maintenance of this function, or which food, from without, affords. The capacity of the blood for the reception of oxygen, must become constantly less, and while this may be, in one sense, conservative, yet in the end it will tell upon the energies of the general system, and hastens the patient's dissolution.

Respiration is ordinarily, in disease, accelerated, and while the capacity for oxygen may be diminished, the quantity of oxygen is, perhaps, in the main, increased. Now here, on the one hand, we have one element probably augmented—while on the other, when food is not taken, those elements with which it is to combine for the production of animal heat, will be found wanting; in which case the body, which has to furnish them, essentially provides the means of its own destruction.

The errors of the profession in the premises, to our mind, are two:—

1st. In regarding the appetite as the index to the wants of the system; and,

2d. That the function of digestion is, in disease, suspended; or incapable of preparing food for absorption and nutrition.

In disease, although anorexia may be present, the wants of the economy are imperious; and yet, because these wants are not indicated by any rational manifestations, we are ready to conclude there can be none—a great error: for we are not to suppose, from anorexia, that the system is free from want, but that it is evidence
of an impure state of the blood, and vitiation of the secretions; for this state of the secretions, even of the mouth, does, unquestionably, have much influence upon the appetite. Abstractly considered, I cannot understand why these wants do not exist, and why we do not proceed to their supply as readily as if the appetite were present to indicate them.

As a sentinel, who sleeps at his post, would fail to give the alarm upon the approach of the enemy, so the appetite does not, in disease, make known the necessitics of the system, and the work of devastation, in case of abstinence, may progress covertly, while the physician is patiently waiting the return of the lost appetite, which we always hail with exultation, and regard as the harbinger of convalescence; it should never be considered, primarily, as evidence of want, or the re-appearance of the powers of digestion, but the resumption of the normal actions or functions of the body, which have been to a greater or less degree impaired: in this case, the "vis medicatrix naturae" is entitled to the credit, rather than the doctor.

Now, we ask, what would be more likely to provoke appetite, restore a healthy state of the secrernent functions, and aid in subduing disease, than the prudent allowance or introduction of food? In all cases, this would not be practicable, owing, mainly, to delirium; but, where there is sufficient mental clearness, the necessity and object of taking food may be, without difficulty, made obvious to the patient.

2d. We feel assured that it is erroneous to conclude that digestion, in disease, is suspended, or even measurably so, and incapable of exerting its peculiar actions upon food, and fit it for assimilation. Although the various organs of the body may be, more or less, impaired in their functions, yet we know they are not, ordinarily, suspended; and there is no just reason why digestion should be considered more at fault than the other functions—indeed, there is every reason to believe, from its position and importance to all the operations of the economy, it would be the last to succumb, or even become impaired.

We have so often observed food disposed of, comparatively, easy, and producing desirable results, that we are constrained to believe that digestion usually stands ready to do more, and better, than we are willing to allow; and unless there are indications which absolutely preclude it, we should presume upon the power
and readiness of the digestive organs to perform their part, at least, adequate to the wants, though unexpressed, of nature. As we would superintend and exercise control over a stubborn and capricious child, knowing better what he needs and what to provide for him, than he does for himself: so, in disease, we should become the guardians of our patients, knowing that the perversion under which the several functions may be laboring, prevent nature from exhibiting her usual mien, or making known her accustomed wants.

If we investigate the symptoms present in cases of starvation, or long abstinence, we cannot fail to recognize many features strikingly simulating those observed late in disease; nor would it be rash to conclude that, not unfrequently, they may be ascribed to the same cause in both instances, to wit: want of food. We mention these facts, more particularly, to show how absurd would be the attempt to restore persons in this starving condition, except by introducing food as rapidly as the nature of the case, and prudence, would permit. Because there are no local lesions, in the beginning, in one case, this fact does not abate the necessity of food in the other; nor could we be warranted in withholding it on this account, but guard against such improprieties as might lead to injury, or aggravation of disease.

A year or two since, the report of a number of cases of Continued fever appeared in the London Lancet, the treatment of which consisted, mainly, in the use of brandy, and the result was most satisfactory. This success may be explained upon the principle that the brandy afforded food, it being rich in those elements needed to combine with the oxygen received through the lungs, as well as giving tone to the general system. It has also been proposed to treat delirium tremens by the free, discrete use of diet; it being alleged that the delirium and vigilance are the result of abstinence—which is almost always the case in that disease—rather than the effects of alcohol, or loss of accustomed stimulus. We believe the suggestion one of practical importance, and meriting trial at the hands of the profession.

The state of the blood has never received that attention in disease that it truly deserves—perhaps the long reign of Solidism prevented it; but of late years, humoral pathology is so universally acknowledged, it seems that accurate observation, with experiments, should no longer be delayed. So far as can be known,
and is practicable, there should be an adaptation of food to the wants of the blood—that is, when the blood is defective in any of its normal qualities, we should have recourse to those articles of diet, simple in their nature, but abounding in those elements, of which the blood has been deprived, and vice versa, in case of excess. It is upon this principle we proceed in the dietetic management of diabetes, and with more success than by any other method.

Dr. Charles Hooker, in a late paper, entitled, "Report on the Diet of the Sick,"* a synopsis only of which we have seen, the following statements occur:—"The appetite is regarded as nature's proper guide, and the general principle is maintained, that, with the suspension of the gastric secretions, the stomach loses its digestive powers, and food can only prove a cause of irritation. This reason has led to most erroneous dietetic management." He might have added, and by consequence, to most ruinous results. Again: "In diseases, generally, a return of appetite is regarded as a favorable symptom, indicating a returning healthy action and condition of the stomach." Would it not have been more rational, and better in keeping with facts, to have said—"indicating a returning healthy action and condition" of the several functions, instead of simply that of the "stomach?" We are happy to find that we agree so nearly with sentiments from so distinguished a source, though we are compelled to dissent from some positions, or rather rules, which he prescribes for the dietetic management of the sick. In his first rule, he says: "The food should be completely masticated and insalivated before passing into the stomach." The objection is not to the rule, but to the nature of the food implied. It seems to us, that when the secretion, and thereby the action of the stomach, are impaired, those substances should be ingested, which would require the least effort of that organ, and that would be easiest absorbed. Our chief reliance should be upon nutritious fluids, and looking to that other important action of the stomach, viz., venous absorption, for the ready conveyance of nutrient material to the general system; at the same time, let solid food be used as much as the nature of the case will allow.

Dr. Hooker, in his second rule, says: "Food should be administered at regular times, corresponding with the previous habits of the patient."

In disease, generally, we must bear in mind, there is no appe-

* Made to the American Medical Association, Session for 1855.
tite, and so far as previous habits, in regard to eating, are concerned, we say they are measurably broken up; the patient would not, likely, relish food at one hour more than another; besides, the regular meal hours would not be sufficiently often, for the patient rather loathing food, and digestion more or less impaired, we can only give small quantities, and have these digested; they should, therefore, be repeated at rather frequent intervals, and thus we may introduce, in twenty-four hours, a considerable amount of nutrient material, without its proving nauseous to the patient, or taxing his stomach beyond its powers.

We cannot do better than insert his 4th rule entire. "Medication should be directed with a view to aid, and not impair, the appetite and digestive action. Without regard to this precaution, the purpose of restoring the appetite, and sustaining it during the progress of disease, will often fail. Medicines, nauseous to the taste, given just before eating, will sometimes effectually destroy the appetite for food. Thus, medicines, appropriate to a case, may do more harm than good, if given at improper times. Quinine, and other bitter tonics, judiciously employed, invigorate the digestive organs and improve the appetite; but for this purpose, they are best administered with the food. Their action, and the stimulus of food then coincide; but given between meals, or even half an hour or an hour before the food, they often spoil the appetite."

We must not forget that, in disease, most usually, we have no appetite to sustain—no appetite to spoil; and it is to this point we have endeavored, in this paper, to direct the attention of the profession—the necessity and practicability of using food or diet, without appetite—because it is just here, we think, most fault attaches.

From what has been said, it follows:—

1st. That, in disease, the want of food is obvious, although there is no appetite present to indicate it; and,

2d. That the use of diet is entirely feasible, and that the digestive organs are capable of preparing the requisite amount of food; and,

3d. The prudent and discriminate use of food tends to allay, rather than to aggravate disease.
Health of the City of Savannah during the Winter and Spring of 1856. (Read before the Medical Society of the State of Georgia, at its Annual Meeting, April, 1856, and ordered to be printed.)

By P. M. Kollock, M. D.

The winter which has just closed, has been the most intensely cold that I have ever experienced in Savannah, during a residence of thirty years. The mercury has been depressed to an extremely low point, and continued at that low point for a greater length of time, than has ever occurred before, within my remembrance. This hyperborean condition of the atmosphere, however, has not, as a general rule, exerted any deleterious influence upon the health of the inhabitants—the city having been entirely exempt from the prevalence of any epidemic during the winter months. Contrary to precedent—the succession of an early spring to a cold winter—all Nature seems to have been exceedingly averse to donning its vernal garb, and April finds us nothing loth to the occupancy of the seat in the chimney corner.

About the beginning of February, we began to be made aware that the healthful state of existence which had been so long enjoyed by our city, was about to be interrupted,—cases of measles presented themselves, and we very soon found ourselves in the midst of an epidemic.

I saw nothing of the disease until the 20th of the month. On that day, I was called to see Amos Henderson's son, Polk, and Wm. Blaek's son, Phineas; the former 5 years old, the other several years older.

The rational signs in these two cases were indicative of the approach of typhoid pneumonia. There were present, fever, with a very frequent, small pulse (120 in the minute) in Polk's case—the respiration labored and hurried (52 in the minute), cough, without much expectoration or pain—chest resonant on percussion—respiration bronchial, without râles. He was treated with cathartics of ol. rícin., alterative doses of cal. and pulv. Dover., sol. tart. ant. and nit. pot. and small doses tr. aconit.

On the 24th, the diagnosis of this case was decided by the appearance of the rubeolous eruption on the face. Immersion of the whole body in a warm bath brought out the eruption on the rest of the body. After this, the rubeolous disease pursued a very
regular course, the eruption disappearing, with some desquamation, at the usual time; but an obstinate and troublesome cough remained, normal resonance of the chest existing on both sides, with loud, mucous râles all over the right lung, unattended with fever. This condition has been gradually ameliorated by the revulsive action of blistering with cantharides, and pustulation by means of croton oil and tart. antim. applied, alternately, to the right inter-scapular space, posteriorly, and the subclavicular, anteriorly; also, by the administration of 10 grs. of alum, three times a day, and a cough mixture composed of syr. senek., syr. scill., syr. tolu., ol. Jecur. asel. and acid hydrocyan.

The symptoms in the case of Mr. Black's son, were very similar to those of the case which has just been detailed. To them, was superadded muttering delirium, dry and brown tongue, sordes on the teeth and lips. The rubeolous eruption did not manifest itself until the eighth day, and its appearance was followed by an alleviation of all the preceding alarming symptoms.

The treatment of this case was similar to that in the preceding, a blister having been superadded, applied to the nucha, on account of the delirium. The tr. aconit. was used in these two cases, in consequence of the favourable influence on the pulse, which has been lately claimed for it; but it failed to exhibit any such influence.

Desquamation occurred in this last case on the 28th, the attack having commenced on the 15th, and convalescence was not attended by any unpleasant sequel.

As is usual with rubeola, the stage of incubation occupied three or four days; the eruption arrived at its climax about the third or fourth day, and declined from this time, not disappearing entirely, in some instances, until the eighth or tenth day from its commencement.

The epidemic disease was developed among the younger members of my own family, attacking first a boy of seven years. The eruption showed itself on his body first, on the fourth day. It did not disappear entirely from the anus and legs until the eighth or tenth day. He became convalescent, and began to go about, as usual, and take his regular meals, when symptoms of indisposition re-appeared, accompanied with fever, anorexia, &c., and in a few hours after, a vesicular eruption exhibited itself on his face, extending rapidly to all parts of his body, and in great profusion. The vesicles were in some places conical, and in others umbilica-
Kollock, on the Health of the City of Savannah. [June,

...ted, surrounded by a very slight areola without any elevation of base. Those which first appeared, dried in the course of forty-eight hours—others succeeding them in different places, generally distinct, but sometimes confluent; they were filled with a whey-like serum, not becoming purulent.

While this boy was confined to bed with measles, his elder brother, about nine years old, who occupied the same room, complained of feeling unwell, having headache, loss of appetite, &c. In a few hours, an eruption of vesicles occurred on his face, and extended soon to the rest of his body. These vesicles were distinct, somewhat umbilicated, with an areola, and supported on an elevated base. They somewhat resembled varioloid; but I did not consider them worthy of that title.

This vesicular eruption was very much of the same nature as that of the boy first named, which was doubtless varicella.

At this same time, two young negroes who attended in the house, and three others in an out-house on the same premises, showed the same eruption, unattended by fever.

The boy of nine years old (whose eruption was vesicular) was kept in bed two or three days, and purged with citrate of magnesia, and dieted. He then became convalescent, left his bed, and returned to his usual habits. In a day or two, however, he began to lose his appetite, to flush in the face, feel pain in the head, with a dry and hot skin. He was treated to another dose of citrate of magnesia and put to bed, and a warm bath administered at bedtime. On the following morning, the rubeolous eruption made its appearance, accompanied with cough, inflamed eyes, fever, &c. This disease ran its course regularly, and without any unusual symptoms, terminating in rapid convalescence.

Two other still younger children, a boy and girl, occupying the same room with the other cases which have just been detailed, were attacked in the same way, with the rubeolous disease first, followed by the vesicular or varicellous.

The rubeolous disease in the little girl's case was unusually severe, being attended with a very profuse eruption; on the second day of which her pulse rose to 160 in the minute—respiration 48, accompanied with alarming convulsive jerkings of the head and extremities, and harassing cough. She was subjected to hot mustard pediluvia, mustard poultices to extremities and chest, dry cupping to interscapular region, alterative doses of calomel and ipecac, flaxseed enemata. She recovered perfectly.
The treatment which I have employed in this disease, has consisted of mild purging with castor oil or citrate of magnesia, diluent drinks of flaxseed infusion, arrow-root, gum-water, mustard pediluvia, mustard or pepper poultices to extremities, chest, abdomen and throat; hot general baths, when the eruption is backward in making its appearance; occasionally spts. minder, to allay febrile symptoms. After the decline of fever, and during the decline of the eruption, pulv. Dover, to check diarrhoea (to which there is a very great tendency) and to procure rest; flaxseed enemata, to allay tenesmus.

For the purpose of removing cough and bronchitis, which is apt to continue after the disappearance of the fever and eruption, I prescribe mixtures composed of syr. senek., syr. scill., syr. ipecac., syr. tolu, and sometimes, gum ammon. and aq. laur. ceras., or acid hydrocyan., elix. paregor. and Dover. pulv.

Where there is exhibited any tendency to pneumonia, or cerebral disease, alterative doses of calomel, combined with ipecac. or pulv. Dover. sometimes vin. anti-m. and blisters. I have used mur. ammon. where the bronchial affection proves obstinate, but I do not consider it as efficacious as alum.

Usually, measles is an exceedingly mild and manageable disease with us; so much so, that very many persons consider it entirely unnecessary to send for a physician. The popular notion is, that it is only necessary to keep the patient warm, and give saffron tea to bring out the eruption. Some, who are more economically inclined, give sheep or goat dung tea, instead of saffron, for the same purpose. I am inclined to consider one quite as good as the other. The eruption is much more speedily and effectually brought out by giving cool, demulcent drinks internally, combined with revulsive stimulating poultices, and warm baths to the surface.

The epidemic of which we are speaking, has proved the most serious and severe disease, of this character, which I have ever encountered. It has been attended with unusual mortality, in consequence, mainly, of the grave complications which it has involved. The most frequent of these are pneumonia and laryngitis; in some cases, tendency to cerebral disease.

I attended the son of a South Carolina planter, who came to Savannah to put his children to school. His eldest son, 15 years of age, had ridden on horse-back from home—about a day’s journey. He sickened on the day of his arrival in Savannah, having
fever and cough. His father, without the advice of a physician, gave him calomel, in broken doses, to the amount of 12 grains, following it with a dose of castor oil. The rubeolous eruption showed itself on his face, full and confluent, but sparingly on the extremities and trunk. The larynx became, rapidly, deeply involved, cough and respiration croupy, with pain and sense of suffocation. The eruption assumed a livid tint, typhoid symptoms supervened, and he died on the fourth day from the commencement of the eruptive stage.

The result of this case might have been different had my directions been followed in the application of revulsives to the surface. A general warm bath was not administered, for the want of the proper conveniences; and although mustard poultices were, subsequently, freely applied, the eruption continued scant, and pale or livid on the surface. An attempt to vomit him with ipecac. failed (the drug passing off by the bowels); a blister was applied to top of sternum; alterative doses of calomel and ipecac. were exhibited; and he was stimulated with turpentine, wine, brandy, and carb. ammonia, without avail.

My friend, Dr. Bulloch, saw the case with me. He considered it the worst case of measles which he had ever seen, and expressed the belief, that in cases of this description, proper aeration of the blood is prevented, and a state of asphyxia is induced by the extension of the inflammatory irritation throughout the mucous membrane lining the bronchial tubes and vesicles.

I attended a child of Mr. A. A. Solomons, druggist, aged two years. There is a strong predisposition in the children of this family to cerebral disease. This child was attacked with fever, cough, anorexia, and great irritability of temper. It was purged with calomel and castor oil, and leeched behind the ears. The febrile symptoms being thus moderated, and believing that they were the prodromes of measles, an active and persevering revulsive treatment by warm bathing and mustard poultices, was instituted, and followed by the rubeolous eruption on the third or fourth day. The eruptive stage passed off with regularity—slight cough and frequency of respiration continuing—but conjoined with excessive irritability of temper, a dull and sleepy appearance of the eye and perfect aversion to food and nourishment of every description.

In consideration of the family predisposition to cerebral affec-
tions, these last mentioned symptoms were calculated to create uneasiness. My friend, Dr. J. B. Read, was called in consultation, and we determined to watch the case very closely, and pursue a semi-expectant and alterative course of treatment. Although there remained cough and some abnormal frequency of respiration, there were presented no physical signs of pneumonia or other thoracic disease. The most prominent symptoms indicated cerebral irritation. But as the child had been considerably reduced by the rubeolous attack, it was possible that its present condition might be only hydrocephaloid, the effect of debility, and not hyperexcitement. It was enjoined, therefore, upon its nurses, to persevere in endeavoring to introduce as much nutriment into its stomach as possible. A pursuance of this course for a few days was productive of good effects, and the hydrocephaloid symptoms disappeared entirely. The simple uncomplicated cases of the epidemic, as is usual, terminated favorably, with very few exceptions, requiring very little medical treatment. The various complications which have been spoken of, required to be met with the same remedial means as are found effectual in their treatment, when uncombined with measles or other morbid conditions.

The co-existence of measles with some of the other exanthemata, is alluded to by authors. Measles and scarlatina have been observed mixed up together in the same case. Small-pox has been seen to succeed measles, and measles small-pox. The same with the vaccine disease: and Gregory states, that “one of the most familiar modifications is, an abundant crop of miliary vesicles on the anus and trunk, filled with transparent lymph, and of such size and distinctness as to create the suspicion of the disease being small-pox.” But I do not find in any author, exactly such a complication alluded to, as that which I have described as occurring in my family.

In one of my children, and in several little Negroes, the vesicular eruption, resembling most nearly varicella, made its appearance first, and was succeeded, several days after its cessation, by measles. In three other cases, (whites occupying the same room) measles appeared first, ran its course, convalescence succeeded, and then a re-development of morbid phenomena, terminating in the vesicular affection. Desquamation occurred in some of the cases of measles; but these were the exceptions—the majority exhibiting no desquamation.
I have heard it suggested that in cases where desquamation occurs, the protection against a second attack may be made more perfect. I am not disposed to admit this, inasmuch as second attacks are rare, and the cases of desquamation are almost equally rare.

The epidemic still lingers in our city, and will probably continue until the subjects are exhausted. It is gradually extending to the country and plantations. That it is propagated by contagion in many instances cannot be doubted. It made its first appearance on Ossabaw island, which is on the sea coast, 20 or 30 miles from Savannah, on a plantation at the south end of the island, immediately after the return of a negro boy from Savannah, in whom the disease was developed. After the disease had run its course with him, nine other cases broke out simultaneously on the same plantation—there being no case on any other part of the island at that time, nor had there been previously.

*Diseases of the Female Urethra,* (Read before the Suffolk District Medical Society, Feb. 23, 1856.) By Walter Channing, M. D.

These diseases are of the meatus, or are just within it, or occupy more or less of its lining tissue. Those which are at or nearest the meatus may arise by a narrow foot-stalk, or may have a broad base. They have, sometimes, many origins, or proceed as vegetations of various length, from a single base, or may have independent origins. At times they are acuminated, at others rounded, with narrow, or almost filiform foot-stalks. When of broader origin they may be oblong, or circular. They may not be much elevated, but lie broad and flattish upon, or within, the meatus. In one case, the tumor, if such it may be called, arose thin and broad, and protruded, fan shaped, beyond the external labia.

In structure these growths are very delicate, seeming to be a mere mass of vessels enclosed within the finest tissue. This it is which accounts for their color. This is the brightest ruby red. We rarely meet with any structure of which the color is more distinctive than it is in this disease. It explains the hemorrhage which has been met with after their excision. In some cases this is as unmanageable as in any surgical operation which has hemorrhage as a result. We are not always aware of the amount, as the flow may be towards, and into, the bladder. Subsequent micturition shows the amount.

Another sign is the sensibility of these growths. It is emphatically exquisite. The slightest touch produces intense suffering.
Micturition is dreaded. Walking or sitting brings with it severe pain, so that the patient is obliged to keep, as much as possible, at rest. This has been especially annoying to women who live by work. At times they must abandon all active employment. It seems hardly possible that so small a disease should produce so much annoyance. In those instances in which the disease extends much, especially to, or beyond the labia, there may be a fetid acrid discharge, which irritates and inflames the surfaces to which it is applied, or upon which it accumulates.

In some cases the meatus is thickened; sometimes half round, at others in two opposite parts of its circumference, forming distinct lips, with a linear opening. In such the meatus may be patulous, or easily opened, showing a morbidly red surface of the urethra within. In these instances there is less suffering than the preceding form of the disease has accompanying it, but it is quite enough to trouble the patient and to act as a fret upon the mind, producing depression of spirits, and if it have existed a long time without being diagnosed, and has been treated as is common dysuria, there is a hopelessness of recovery which does not promote convalescence. This last is marked by paroxysmal attacks of suffering, the intervals of which may become longer and longer until they disappear.

Another form of structural urethral disease is found in the urethra itself. The meatus is well, but patulous. There is no outgrowth. There is nothing unusual in it except its being very open, or easily opened. Within is the ruby red color. There is one lesion in it which has rarely been met with by me. This consists of cracks or fissures, appearing as lines only, and often only attended with pain during micturition.

Of the subjects of these diseases, as to age, it has been met with from 12 or 13, to between 40 and 50. Sedentary persons, as dress makers, shop tenders and domestics have furnished most cases. The most healthful in appearance, and in fact, have been its subjects, and the suffering has been equal in all its subjects.

One fact in the history of these diseases deserves special notice, and which has been adverted to. This is the accompanying condition of the bladder. It gets to be very irritable. It bears but little urine without distinct complaint. The patient's occupation or situation may prevent a prompt attention to the call. The suffering is great; but worse, the bladder becomes seriously impaired in its functions, and may always trouble the patient. In this form of the disease the diagnosis is made with much difficulty, so that the effect of a disease becomes the leading object of regard, while the disease itself lies unnoticed and unknown. Symptoms of grave renal trouble may be developed at length, and a condition of helpless invalidism may be the result.

Diagnosis.—This is not difficult if its means are used. These are mainly inspection of the part. This may be made sometimes
with the speculum with a fenestra or window in its tube. If the disease be beyond vision, then the catheter very slowly introduced, or a bougie, may point it out. Chemical examination of the urine will separate urethral from vesical and renal maladies. Symptoms, and appearances, as above given, will of course form an important part of the means of diagnosis.

Case I.—This occurred many years ago, in a domestic apparently in perfect health, about 18 years of age. I saw her with my friend, Dr. Putnam. The local symptoms, so grave in this case as to make it absolutely necessary for the patient to leave her place, led Dr. P. to ask for an examination, when vaginal explorations were rare. He discovered a tumor, projecting from the urethra, small in size, with a broad base, ruby red color, and of exquisite sensibility. Dr. Putnam removed the tumor by excision, immediately afterwards applying the nitrate of silver. The recovery was speedy and perfect.

Case II.—This case was seen by me with my friend, Dr. Bowditch, some years ago. A domestic, aged about 15 years. No cause was assigned for the disease. It had existed for some time, and was the smallest in size of any met with. It was little more than filiform. The suffering was out of all proportion to the size. This case was treated with the nitrate only, and permanent recovery followed.

Case III.—Miss ——, aged about 30, dress maker, applied to me on account of very severe, or distressing dysuria. She had great pain from walking, or any exertion, referred to fore part of the front passage. She had suffered from it for a long time without being able to make up her mind to apply for relief. She was asked if in her occupation she had not felt obliged to retain her water when the calls to pass it were very urgent. She said yes. This question is always asked by me in like complaints, and it is almost always answered in the affirmative. The largest class of patients who consult me for these complaints, complicated as they often are with obstinate costiveness, and various uterine maladies,—the largest number of these are folders, and stitchers of books, milliners, dress makers, shop tenders, slop-shop sewers,—the most sedentary of employments, and which to be made at all remunerative must be steadily pursued for many hours in succession. So true is this that the noon meal is carried to the rooms in which they have employment, so that from 12 to 15 hours may be passed without the least exercise. It is in these that the calls of nature are unheeded and the surest foundations are laid for incurable invalidism. Dr. Franklin, I think, died of stone, and traced his disease to his confinement to the printing press in early life, and his neglect of the functional means of health.

Upon examination of Miss ——'s case, a tumor was found projecting from the urethra of a larger size than had been met with by me before in this situation, and having the characters above described.
She consented to have it removed, and this was done next day, Dr. Putnam assisting me. The base was broad, and it was impossible to remove the whole of it without a hazard of hemorrhage which it might be found difficult to check. The nitrate was applied to the wound. Next day the patient was found very comfortable. As a portion of the disease remained, the nitrate was applied once or twice a week, until it was entirely removed.

Between one and two years after, the disease returned. This was after case IV., which follows. The tumor was about the size of the first, and the same symptoms accompanied it. Before removing it, ice was applied until sensibility was entirely removed, and with the best result. There was no feeling of the excision of the tumor, nor from the application of the caustic. After a few subsequent applications of the nitrate no appearance of the disease remained.

Case IV.—This was a school girl of about 13. Menstruation had not occurred. She was unusually tall and large for her age. Health perfect, robust. There was the development of more years. Her mother, an intelligent woman, was uncertain of the time of the occurrence of the disease. There had been, for some time, smarting and difficulty in micturition, with much chafing of the external labia and a fetid discharge. At length a thin, bright, flat substance, with a scalloped edge, was seen projecting between the labia, which was followed by increased difficulty, and walking became very painful. She was taken from school. Dr. Putnam saw this case with me. It was as described by Mrs.——. The slightest touch produced intolerable pain and a sudden spring of the patient, which stopped the examination at once. It was soon found that nothing could be done without etherization, and next day this was tried. Great difficulty was met with in overcoming the power of the patient, and when the fullest effects of ether were apparent in the general system, the local sensibility remained so perfect as to make the child wholly unmanageable. Chloroform was next used and freely, but with no effect. It occurred to me, in the failure of these means of quiet, to try ice. The trial was made and was perfectly successful. Not the least uneasiness was betrayed when the diseased mass was freely handled, when it was embraced by the hooked forceps, nor when it was cut off by the scissors, nor afterwards when the nitrate was freely applied to the cut base, which was deep within the meatus.

Next day patient was found comfortable. Inquiry was made if hemorrhage had occurred. There had been no external bleeding, but with urine which had recently passed, a large quantity of coagulated and liquid blood had come away. There was no return of this, and recovery was rapid. This is the only case within my observation of these diseases in which hemorrhage has followed the excision of these outgrowths. It is worth remembering. If the symptoms of this accident occur, and there be no external flowing,
an examination of the urethra, and the use of the catheter, might discover the cause, and plugging might prevent farther trouble. As for the most part the disease has its seat near the meatus, it could not be difficult to apply here the means to check it, and direct or mechanical ones must be more sure of the effect than are chemical ones.

Case V.—Mrs. ———, a widow, about 40, called on me on account of long-continued pain in the back and hips, sense of weight and dragging, leucorrhea, and disturbed menstruation. She had also dysuria, internal hemorrhoids, which much embarrassed defecation, and had almost cartilaginous and numerous vegetations surrounding the anus. Her general health was wretched. Emaciation great, and upon the whole she was as severe a sufferer as is often met with. Examined by the speculum, a tumor was seen projecting beyond the os uteri, of the size of a small walnut. It was soft, easily bleeding, and insensible. Quite a large vegetation was found at the meatus urinarius. It had the usual color of such growths, but was the least tender of any before seen by me.

Treatment was first directed to the uterine outgrowth. This was too soft for the ligature or foreceps. Caustic was freely and frequently applied. The good effects were soon obvious in the entire disappearance of the disease. The os uteri closed and presented the linear diameter and size of health. The same means were successfully used for the disease of the meatus. The caustic gave pain, but the free use of cold water soon removed it. Much more time passed before the cure, than was required for the removal of the uterine disease. The hemorrhoids were removed by ligature, the tumors being forced out of the bowel by the patient for the use of the ligature. After those had been removed which were pendulous enough to be tried, a tumor with a broad base remained, and kept up the old irritation. To this caustic was applied by the rectal speculum having a lateral opening. The external vegetations were removed by the scissors, to the bases of which caustic was applied immediately after the excisions. After several months' treatment Mrs. ——— recovered, and is now in good health. She has regained flesh, and uses exercise freely without any of its former accompaniments. This case was complicated with heart disease. On ascending heights, distressing palpitation with dyspnea were experienced, accompanied by rigors in which the teeth would chatter as in severe paroxysms of intermittent fever. The skin became cold and livid. There were no signs discovered of organic cardiac trouble, and its imitations have gradually diminished as remote local diseases have disappeared.

Case VI.—Mrs. ———, aged about 30. In this case the whole urinary apparatus was diseased, and had been so in various degrees for a long time. There was an outgrowth from the urethra involving the meatus. This was exquisitely tender, hardly tolerating the touch—constant dysuria, with frequent calls to pass water. Is con-
stantly in bed, the least movement producing increased suffering. Constant uneasiness in the part diseased, with paroxysmal exaggerations which it was not easy to remove or diminish. The catheter was used and the whole extent of the urethra was found as tender as was its meatus. The urine was rendered in various conditions. At times it was bloody. Liquid and coagulated blood was so freely passed that at times it seemed to make the principal amount of what came from the bladder. Sometimes it was purulent, and in no case have I seen so much pus in the urine as in this. At other times the precipitate was flocculent, branny, reddish, or quite pale. At others albuminous. Along the back and in the renal places there was much tenderness.

The treatment of this case was designed to meet obvious indications. The constitutional symptoms were febrile, or such as very grave local disorder commonly induces. There was heat, quick pulse, no appetite, prostration. Local bleeding, counter-irritation, alternatives, narcotics and subnarcotics, diosma, tinct. fer. mur., demulcents, external applications in their endless variety—these were among the means employed. She was etherized and the urethral outgrowth removed by excision. The nitrate was afterwards used to check hemorrhage.

At times were signs of improvement and recovery. The vesical hemorrhage, if it were vesical, would cease. And so would it be with pus, which replaced hemorrhage, and with other deposits. The urethra would seem to be recovering, and then without known cause, the patient not having left her bed, all the symptoms would in various order show themselves. At length, when much relieved, Mrs.——determined to go home. This she did, her husband coming to go with her. Her travel was more than one hundred miles and was without accident, at least I have not heard that it produced any. I could not learn what had been the precise relation of symptoms in this case. It had lasted so long that the order of their occurrence was forgotten, if it had ever been observed. Thus, was the urethral difficulty the first in the order of symptoms, and the vesical and renal, effects of this, either by contiguous or continuous sympathy? Or were these last first in the order of diseases or symptoms? The outgrowth was cut away because it was a source of exquisite suffering during micturition, and during the premonitory actions of the bladder which make up the call to pass urine.

Sulphuric ether was used before operating. Its effects were unlike any I have observed during or after inhaling ether. The respiration ceased, the pulse continuing. There was the same appearance of entire repose, pallor and insensibility, as has been observed in fatal cases from chloroform. Respiration was at length produced, and with gradually shortened intervals was re-established. She was cautioned not to use ether again. But in the night, during a paroxysm of intense agony, she insisted on breathing it again. Her attendant yielded. The same result followed as before, and
from which she recovered after the use of the same means. This is the only case in which trouble has followed the use of ether in a very large observation of its agencies by myself and by many others. It was doubtless owing to conditions produced by long-continued suffering, and though apparently alarming, was perfectly recovered from.

Case VII.—Mrs. ——, about 30. This, with other cases, was complicated with uterine functional disease with displacement. The dysuria was of long standing, and was independent of any disease of the meatus. This last was patulous and soft. Within the urethral tissue was redder than natural, and presented a distinct oblique fissure. This is the only case in which I have met with this affection in this organ. It was treated with a solution of nit. argent. applied with a brush. It is under treatment.

Case VIII.—Mrs. —— has one child; called on me on account of displacement of long standing, the os uteri being turned strongly towards, and resting against, the hollow of the sacrum. With the symptoms of such dislocation was very troublesome dysuria. As this last might be owing to the pressure of the fundus upon the bladder, attention was directed to the womb. It was replaced and Hodge's lever pessary introduced. The relief of symptoms of displacement was perfect. After a time they returned. Examination showed the pessary out of place. It was adjusted and worn for some weeks, but getting again displaced, it was removed, and Meigs's ring pessary substituted. This answered perfectly well. It was worn four or five months, and as all the symptoms for which it was used had disappeared, it was removed. It had not at all been injured by this long use. Dysuria continued, and became a very troublesome disease. The urethra was examined. The lips, or edge, were found much swollen, but not at all reddened. Upon opening the meatus, a swelling with a broad base was detected, bright red, and very tender, and beyond, the lining membrane had the same color. At first the solid nitrate was applied. Its good effects were manifested after a few applications. The solution was now substituted, with entire relief of the dysuria. There was an opaque mucous discharge from the urethra, which has been met with in other cases, but this has nearly disappeared. Mrs. —— can now take long walks without inconvenience, and considers herself well. Cases enough have been given to illustrate the general history of the diseases under consideration.

Remarks.—It may be asked if there were not a specific cause of these urethral lesions. The answer is distinctly in the negative. The ages of some of the patients and the social position of others, and direct inquiries wherever suspicions arose of causes, have satisfied me that there was no reason for suspecting or believing in the action of such a cause. The treatment was in no case specific. Strictly local remedies were relied on. In one case only am I sure
that the disease re-appeared, and since its second removal it has not returned.

Few diseases would seem to present greater difficulties in their diagnosis, and few are more painful and persistent where a correct diagnosis is not made. The difficulty lies wholly in not using the only sure means of diagnosis; for when an examination of the diseased part is made, the discovery of the nature of the malady is at once made. The sight and the touch should be both employed.

Of the treatment there is but little to be added, and that cautionary. Hemorrhage has been alluded to. If my memory serve, one case is reported which was disastrous in its results from this cause.

There has been but one case in my practice, in which there was bleeding after the application of caustic, and that was internal into the bladder. This should be borne in mind, as we may have the symptoms of large hæmorrhage without external flow. Should hæmorrhage be excessive or continue, then caustic, pressure by a bougie, or other means, may be employed. Grave peritonitis, we are told, has followed slight operations on the vagina. There is a case in mind, in my own practice, in which very severe pain and soreness in the abdomen followed the injection of the cervix uteri with a solution of nit. argent. No case is remembered in which operations in the meatus, or urethra, have led to such results.

The first case in which ice was used to destroy sensibility occurred some years since, and I am not aware that such an employment of it had been made before, or that I had met with the suggestion, or the authority of its actual use. Quite early in my professional life, an aged physician, now long dead, said to me that he had used ice, in the form of icicles, in cases of sore throat in which the tonsils were much swollen, and the pain was great, and that relief had followed, and so nearly to the application, that he could not but regard it as its consequence. This conversation may have unconsciously suggested the use of ice in the cases reported. It was perfectly successful. Dr. Arnott, of England, and physicians and surgeons in America, have more recently recommended and employed ice previous to surgical operations to prevent pain, and I think by Dr. Arnott to make other anaesthetics unnecessary. In my cases the effect was excellent. Under ether or chloroform the patient will sometimes start at the first touch of the knife, though apparently under their fullest operation. This has been met with by me too often to doubt it. In Case IV. it made the operation utterly impossible. Ice at once removed all pain. In a recent case, in which an abscess of the abdomen was to be opened, ether was used until its fullest effects were manifest. The first touch of the knife caused so much starting that it was only by use of force to restrain the patient that the operation could be completed. When Mr. —— recovered his consciousness, he had not the least memory of having resisted what had been attempted.

After this paper was read, a request was made that the fellows
present would communicate such cases of female urethral disease as might have fallen under their observation. From one, three cases were reported, and two from another. In one of the last, no structural disease had been discovered, though carefully looked for. The pain was confined to the urethra, and was represented as very severe. Many methods of treatment had been used. Some months of relief were experienced, but some threatenings of return of the symptoms had been recently manifested. Another fellow reported very interesting cases without discovered urethral lesion, though most carefully searched for, in which the symptoms reported in the cases in this paper were present in severe form, and in which injections of narcotics and sedatives into the urethra had been remedial.—[Boston Med. and Surg. Journal.

Whooping Cough, its History, Nature, and Successful Treatment,
By Laurence Turnbull, M.D., &c.

This disease has been to me one of much thought and considerable personal interest, from having had four of my children attacked with it in its most aggravated form. My attention was also particularly called to it during the months of May and June, 1854, when the malady prevailed to a considerable extent in our city; cases of it have also continued to occur up to the present month, July, 1855.

In referring to the works of Hippocrates, (Sydenham Society's Edit. in two vols., London, 1849,) I find no description of whooping cough, neither is there any account of it in the Seven Books of Paulus Ægineta,* so that I would infer that the Greeks, Romans and Arabians were not acquainted with it as a distinct disease.

Dr. Willis was the first medical writer who accurately described whooping or chin cough, his work being published in 1682, (in two vols.)† It was not until the present century, however, that this disease was fully investigated and made known to the medical public, which was chiefly done by the labors of Rosen, Cullen, Schæfer, Hufeland, Mathai, John, Authenrieth, Watt of Glasgow, and Albers of Bremen. It is stated by Rosen, that it passed from the East Indies and Africa into Europe.

First stage.—The first stage of whooping cough has no distinct and prominent symptoms by which it can be distinguished from ordinary catarrh, or bronchitis, except, perhaps, a slight difference in the voice and cough which sounds louder and shriller; the ex-

† "Tussis puerorum convulsiva, sue suffocativa et nostro idiomate chin-cough vulgo dieta." (Opera Omnia, Amst. 1682, vol. ii. p. 109.)
pectoration is usually limpid, but in some instances I have noticed it opaque, yellow, and even greenish.

This period may last from five days to as many weeks. Lombard states that in an epidemic which occurred at Geneva, it lasted from one month to six weeks; when the whoop is going to occur, it is usually noticed in the second or third week, but I have had several cases where the cough was present without the whoop.

This absence of the whoop is often very unfortunate, for children may in this way propagate the disease, and cause whole families and even schools to be attacked. This fact was proven in the case of my son, aged seven years; he sat in school by the side of a little boy who had a cough, which was very sonorous and painful to listen to, but the anxiety of the teacher was much relieved by being informed that his physician did not consider it whooping cough; subsequently the youngest child of this family was attacked by the disease and whooped, and the boy was then kept from school, but too late to save the other members of his class, ten of whom took the disease, so that the school was nearly broken up; my son communicated it to his three sisters, who all suffered more severely from it than he did.

I therefore think that children should not be allowed to mix with their companions when suffering from a cough of this character, if the disease prevail in the locality.

Second stage.—The second or spasmodic state of this malady, is easily known, by the peculiar sound and suffocating character of the cough. In this stage, almost every organ is irritated, and it even produces discharges of blood from the nose and mouth. The expression of the countenance is most distressing. When this stage is at its height, the child seems to know by some inward sensation that the attack is coming on, and it either cries or lays hold of some object by which it can support itself until the paroxysm is over. The face and neck become swollen, and in some instances remain so, and the child, at the termination of a fit of coughing, either discharges some thick tenaciousropy mucous, or evacuates the entire contents of the stomach.

The least mental excitement, either of joy or sorrow, will produce an attack, and the number varies with the severity of the disease. The paroxysms last from one-fourth to three-fourths of a minute.

The average duration of whooping cough is from six to eight weeks if not checked, but in many instances it lasts as many months; second attacks are rare, and yet they do occur. Whooping cough prevailed in this city with measles, in May and June, 1854, followed in October and November by chicken pox, and in January, 1855, by scarlet fever, with sporadic cases of catarrh and croup, showing a connection or relation one with another, so that the same causes may give rise during an epidemic to simple catarrh, croup, whooping cough, or even measles.
The complications of whooping cough I cannot enter into, but the chief of them are croup, bronchitis, pneumonia, pleurisy and diseases of the brain and cavity of the abdomen, which are to be recognized by their characteristic symptoms.

According to Billard, post-mortem examinations have not revealed anything uniform in this disease, except bronchial catarrh in its various stages.

Sydenham imputed the disease to a subtile and irritating vapor in the blood. Hufeland considers that the eighth pair of nerves is diseased, and is the cause of the double irritation of the bronchia and stomach. According to M. Guersent (Dict. de Méd.) whooping cough is a catarrhal affection, seated in the trachea and bronchi, consisting of a specific inflammation, accompanied with spasm of the trachea and glottis. Dr. Watt, of Glasgow, considers the disease to be inflammatory and seated in the bronchi. Albers, of Bremen, considers whooping cough to be an affection of the nerves of the thorax, with which bronchitis is frequently complicated. Laënnec regards it as a variety of pulmonary catarrh, and from the convulsive character of the cough he calls it convulsive catarrh.

Dr. Webster (Med. and Phys. Jour.) is of opinion that the symptoms, when closely viewed, suggest the impression that whooping cough depends upon inflammatory irritation of the brain or its membranes. This is the opinion held by Dr. Copland, and very many distinguished men of the present day, but to my mind it is not satisfactory. The whooping cough, in its first stage, is certainly of an inflammatory character, chiefly affecting the lining membrane of the air passages, but this is of a specific nature. In the second stage there is no evidence of inflammation indicated either by the pulse, skin, or any other organ, but there is a powerful irritation of the laryngeal constrictor, and bronchial muscles and nerves, producing a cough which occurs rapidly many times so that a single inspiration is followed by five or six successive expirations constituting paroxysms of coughing (tussis accessus,) accompanied with redness of the face, watery eyes, headache, tinnitus aurium, fulness of the cervical veins, retching and sometimes vomiting.

By some writers it has been considered that this disease was produced by a peculiar miasma, acting chiefly on the nerves, and is also ascribed to the presence of minute insects in the air (Boehme—Linnaeus,) or, according to Prof. J. K. Mitchell, its epidemic origin may be a peculiar fungus; "the spores of these plants are not only numerous, minute, and indefinitely diffused, but, like the animal, all have the power of penetrating into and growing upon the most interior tissues of the human body," passing into the systems of those exposed to its influence by the respiratory organs or stomach, producing the irritation of the mucous membrane of the air passages. "Introduced into the body through the stomach, or by the skin or lungs, cryptogamous poisons are known to pro-
duce diseases of a febrile character, intermittent, remittent and continued—and even the disease of the mucous membrane, termed aphthæ, arises from the presence of minute fungi."

Dr. M. has not made this application of his doctrine to this particular disease, yet I do not see any good reason why it should not be so applied. According to Dr. Spengler, of Ellville, epidemic diseases depend on the presence or absence of ozone. He states that in the village of Röggendorf, in Mecklenburg, towards the close of 1846, when slight catarrhal affections became prevalent, but slight traces of ozone were to be detected in the air. With the opening of the following year, however, these catarrhal affections assumed the severest forms of trachcal and bronchial disease, and whooping cough became common both among children and adults; then reagents detected a great increase of ozone in the atmosphere."

**Prognosis.**—The prognosis in uncomplicated whooping cough is very favorable, and is unfavorable only in proportion to the dangerous nature of its complications and the age of the child; the best season for a favorable termination is spring or summer.

**The modes of Propagation.**—The disease may occur epidemically or sporadically, and it possesses infectious properties. It is propagated through a family from one to another; they are not all apt to be attacked at the same time, and by removal to a distance a child may escape. Dr. Cullen believed that it disappeared in from four to six weeks, but this has not been proved by subsequent observation. Children who have suffered from this disease, should not be sent to school or play with their companions for at least two months.

**Treatment.**—There are but two classes of symptoms to be combated in this disease when no complication exists. The inflammation must be reduced by depletion, expectorants and refrigerants. In the second class of symptoms, the chief object is to diminish the abundant secretion and allay the great irritability of the laryngeal constrictor, and bronchial muscles and nerves.

The means to accomplish this, in my hands, have been the abstraction of blood; the application of a few cups or leeches to the nape of the neck or under the clavicle, with counter irritation, by means of sinapisms and blisters, which will soon allay the congestion of the brain or lungs. To diminish the febrile action small doses of tartar emetic, combined with Dover's powder or prepared chalk, with the free use of syrup of ipecacuanha as an emetic may be given; these will lessen the bronchial inflammation, and remedy the often disordered state of the stomach and bowels.

During the whole stage of the disease, demulcent drinks should be freely administered, such as flax seed tea, barley or rice water. When fully satisfied that the inflammation has been subdued,
indicated by a slower pulse, less heat of skin and no active congestion of the brain or lungs, I have then followed the treatment with belladonna, and my success with this remedy has been most gratifying. Before administering it I tried, in vain, the free use of cochineal in combination with alkalies, assafoetida, opium, alum, hydrocyanic acid, &c. In every instance in which the system was fully brought under the influence of the belladonna, indicated by dilatation of the pupil with confused vision and reddened skin, I was enabled to check the annoying cough and whoop of thirteen children during the month of May and June, 1854, and seven cases since that time, making twenty cases in all, eight males and twelve females; the youngest was nine months and the eldest ten years.

The following was the method followed: The system being prepared by reducing the inflammation by the means before spoken of, obtain, if possible, English extract of belladonna, fresh and good; let the extract be tritivated with water or simple syrup; if it is to be kept for some time, add a small quantity of alcohol. The dose for a child three months old is the sixteenth of a grain every three hours, to a child one year one-eighth of a grain, and so to other ages in proportion.

Inform the parent or nurse of the change it will produce upon the eye, also that it may redden the skin. When full dilatation of the pupil is brought about, the medicine is to be intermittently given as it has gone off again; the belladonna is to be administered in slightly increasing doses, so as to keep the child under its influence for several days or until the paroxysms are checked, which will usually occur towards the sixth or eighth day of the second stage.

In the twenty cases cured by the use of the belladonna the cough and whoop returned in a few cases on exposure to cold, or in disagreeable, windy weather; but by combining the extract with syrup of ipecacuanha a few doses soon checked the cough and whoop; in only one case out of this number was it complicated with inflammation of the lungs and this case recovered.

The average duration of my twenty cases was ten days after the whoop had commenced, when the case was free from complications, which shows the great advantage of this treatment. The ordinary duration of the disease, when treated in the usual manner, is from 1½ to 3½ months; even by prussic acid, or the application of nitrate of silver, the average given is from two to three weeks. It is stated by Dr. Gibb that with the use of nitric acid, the average duration was only six or seven days. Several physicians who have used this remedy, however, do not find such favorable results from its use.

I have added to my communication some extracts from the experience of a few distinguished medical men on the use of this important agent, belladonna.

This remedy was used in whooping cough about the year 1783,
by Dr. Buckhaave, of Copenhagen, who gave the powdered root in doses of two grains, morning and evening, to a child of five or six years of age. The cure, it is stated, was generally accomplished in from seven to fourteen days.*

Dr. Miquel. (of Neuerhaus,) says the belladonna is a remedy upon which he can always depend in this disease. In the course of many epidemics which he has observed during fifteen years, he has constantly cured the cough in eight days.†

Dr. Samuel Jackson, of this city, late of Northumberland, who although he was not the first to employ the belladonna, yet by his valuable publication in 1834 brought its virtues prominently before the medical public, has continued its use for twenty years, and his confidence in its powers to arrest the paroxysm and cure the second stage of whooping cough in the great majority of cases is undiminished.

Dr. Hiram Corson, formerly President of the Medical Society of the State of Pennsylvania, a distinguished practitioner of Montgomery county, Pa., in a paper on the efficacy of belladonna as a remedy in Pertussis, published in the Amer. Jour. of Med. Science, for Oct. 1852, makes the following observations: "My experience in pertussis had satisfied me that of all the remedies in common use, those recommended by writers upon diseases of children are almost useless. Children affected in the winter continued to cough and strangle and suffer for many weeks with scarcely a perceptible amendment. It was painful to visit and mortifying to prescribe for those afflicted with this malady."

He commenced the use of belladonna in four cases, and in one week they were all well. His method of using it was to begin with the sixteenth of a grain to children under one year every two hours, and increasing a little every day until full dilatation of the pupil occurred, the skin became flushed and vision confused; this he accomplished by dissolving eight grains of the extract in an ounce of water, nine drops of which contained the eighth of a grain.

In an epidemic in 1840, he used the belladonna in hundreds of cases with great relief in nearly all. By giving it in small doses at first, the fears of the patients were allayed. In 1847–8, he also prescribed it in numerous cases with much success. He concludes his paper in these words: "During the last seventeen years, I have given the extract of belladonna to hundreds of patients from two months to fifty years of age, and am firmly convinced that it has a greater control over whooping cough, than any other remedy in common use. That while, in a few cases, the system did not seem susceptible to its action in the doses I have prescribed, yet

*Dr. Duncan's Commentaries for 1793, and Dr. Gibb on Pertussis, p. 282, 1854.
in nearly all the disease yielded quickly. It is a safe and efficient remedy for pertussis in children of any age.

Dr. Eberle, in his Treatise on the Diseases of Children, second edition, remarks "that the belladonna has been highly celebrated, and is without doubt, by far, the best article of the kind we possess. My own experience leads me to testify confidently on this point. I have prescribed it within the last six years, (1834), in perhaps twenty cases, and in the majority of them with evident advantage." Professor Borda, he remarks, was the first he believed who used it as a remedy, and his belief in its efficacy is almost unlimited.

Hufeland and Alibert are almost equally decided in their praise of the virtues of this article.

The mortality from this disease in our city in 1850 was 114; 1852, 168; and for 1853, was 64. In 1853, in the district of Richmond, it occurred as an epidemic. In severe cases, Dr. Janvier used the belladonna with the best results. "It mitigates the paroxysms better than any other sedative."

Dr. Condie remarks in his work on diseases of children, that the narcotic from which the greatest amount of benefit is to be anticipated in this disease, is unquestionably the belladonna; it has been very extensively employed, and the evidence in its favor is strong and conclusive, (by Kahlleiss, Janin, Hufeland, Wideman, Raisin, Guibert, Alibert, Shafer, Laënnec, Müller, Blache, Maunsell and Lombard).

He further remarks that he had given the belladonna a very fair trial, and has, in many cases, been pleased with the prompt and decided relief produced by it, "while in other instances it appeared to exert no influence whatever."

I think that this last remark may be often accounted for by the bad character of the belladonna, which is even found in some of the drug stores in this city, for it is an uncertain preparation unless when procured by evaporation in vacuo, for some samples from some of the Parisian shops were found by Orfila to be quite inert.

Dr. Williams, of London, has used belladonna with great advantage in his practice. He gives it in quarter-grain doses to a child of two years, increasing the dose to double that quantity or more, where it fails to relieve. He remarks that these doses, in general, cause some dilatation of the pupil, and conceives that the remedial agency of the drug depends on the same power to diminish irritability of the bronchial and laryngeal muscles which is here evinced with regard to the iris."

Dr. G. A. Rees has found belladonna one of the most efficacious remedies in Pertussis. 

† Gibb on hooping cough, p. 284, from Medical Gazette, Feb. 1838.
‡ Diseases of Children, 2d edition, 1844.
Dr. Waller cured two cases with the twelfth of a grain of extract, three times a day; prussic acid and conium had failed in affording any permanent relief.*

Eberle assigns the highest place among narcotics to belladonna in whooping cough.

Dr. Churchill says that this is perhaps the most influential narcotic and sedative we possess (in pertussis); it has been very extensively employed, and the evidence in its favor is very strong.†

Belladonna has been eminently useful in the epidemic of whooping cough which M. Debreyne has observed, but recourse should not be had to it until the inflammatory element has been overcome by leeches, emetics, &c.

Dr. A. T. Thompson says, I have ordered the extract of belladonna in doses of one-eighth of a grain to a child of eight years, and gradually increased the dose to a quarter of a grain. Its power over the cough is extraordinary.‡

I might bring forward the testimony of many other writers, and a mass of evidence from medical practitioners, to establish still more firmly the fact of the efficacy of belladonna in this peculiar malady, but it will not, I trust, be necessary.

I will now endeavor to give an epitome of the experience of the best writers in the treatment of whooping cough by means of other agents.

The first of these which I will notice is alum, which has been very highly recommended by Dr. Golding Bird; it has been employed with success by Dr. John F. Meigs, of this city, who speaks of it as follows, in his useful work on diseases of children: "From reading Dr. Bird's remarks on alum, and prompted by my knowledge of its admirable qualities in the treatment of croup, I was led to make trial of it in the disease under consideration, and I believe I may say that it has exerted a more decided influence in moderating the violence of the disorder, than any remedy that I have ever made use of. I have administered it in fifteen cases, beginning in the course of the second stage.

In all, it was beneficial, and in some the effects were strikingly useful, the improvement being more rapid than I had ever seen to result from other remedies."

Dr. Bird gives from two to six grains every four hours. His formula is as follows: B. Aluminis, gr. xxiv; Ext. Conii, gr. xii; § Syrup Rhiæados, 3 ii; Aquæ Aneth. f. 3 ii. M. Give a medium-sized spoonful every six hours. Dr. Meigs gives it in smaller doses, and without the Ext. Conii. To children under one year, half a grain to a grain three or four times a day; and to those over that age, two grains every six hours.

† Elements of Materia Medica.
‡ London Jour. of Medicine, April, 1850.
§ This is considered by Dr. Butter as the remedy, namely conium, for whooping cough, and he eulogises its use.
Dr. Crossly Hall, an English physician, employs the *alum* in powder, prescribed in a little water eight times a day, and he considers it a very useful remedy.

Mr. Davis highly extols the efficacy of alum in pertussis. In the last edition of Underwood’s Treatise, edited by him, he says: “After a long trial, I am disposed to attach more importance to *alum*, as a remedy in whooping cough, than to any other form of tonic or anti-spasmodic. I have often been surprised at the speed with which it arrests the severe spasmodic fits of coughing; it seems equally applicable to all ages, and almost to all conditions of the patient. The dose for an infant is two grains three times a day; and to older children four, five and up to ten grains may be given mixed with syrup and water.”

I have employed *alum* both in the case of my patients and my own children, and gave it freely; it moderated the intensity of the disease, but it did not in my hands make a cure, so that, after its use, for ten days, I had to resort to the belladonna, which, in a week, completely checked the whoop.

Another agent which has been very highly lauded is the hydrocyanic acid, which is considered by Dr. Thompson, of London, to possess a “specific power” over the disease.

Dr. West, of London, author of a valuable treatise on the diseases of childhood, says, “that the acid sometimes exerts an almost magical influence on the cough, diminishing the frequency and severity of its paroxysms almost immediately, while, in other cases, it seems perfectly inert; and again in others, without at all diminishing the severity of the cough, it exerts its peculiar poisonous action on the system so as to render its discontinuance advisable.”

He recommends it to be given by itself, diffused in a little distilled water, sweetened with simple syrup, and the dose he begins with is half a minim every six hours for a child nine months old. He has never but once, however, seen really alarming symptoms follow its use, though he has employed it in many hundred cases; still he remarks that although the severity of the cough may be relieved by the acid, it does not enable the practitioner to dispense with other remedies.

Dr. Hamilton Roc, in his treatise on whooping cough, gives to an infant three quarters of a minim of hydrocyanic acid, Scheele’s strength, gradually increasing it to a minim, which is administered every four hours; for a child three years of age one minim, gradually increasing, if necessary, to a minim and a half every four hours. Dr. Roc says he is convinced, from the result of all the trials he has made, that this drug will cure almost any case of simple whooping cough in a short time. Dr. Edwin Atlee first used it in 1824, and from that year until March, 1832, he says he has treated more than two hundred patients, and never failed to cure in from four to ten days.*

This medicine is highly recommended by Muhrbeck, Kahleiss, Volk, Heller, Granville, Lombard, &c. I have tried this acid, but it did not at all please me in its effects.

Another remedy which demands our notice is the precipitated subcarbonate of iron, (ferri sesquioxidum). The following observations on its use are by Dr. H. C. Lombard, of Geneva, who, after praising the virtues of asafoetida, flowers of zinc, opium, prussic acid and belladonna, says, "I come now to my specific, or rather to the remedy advised by Dr. Steymann, as the best anti-spasmodic in whooping cough. Dr. Steymann had advised to give from four to ten grains of subcarbonate of iron in the twenty-four hours; he gave as a rule to increase one grain for each year, so that a child six years old was to take six grains in a day, but from the beginning I found the dose quite inadequate, and I increased it to twenty-four and thirty-six grains in young children. I have given it either with water and syrup, or mixed with a cough mixture. It has never produced any inconvenience. On the contrary, I have found that all the children treated after this method were much less weakened, and recovered faster than with all other remedies. The proofs of the advantageous effects of it have been so numerous that I can scarcely enter into the detail; however, I may give a few facts to corroborate my assertion. In a child four years old I gave the subcarbonate of iron, and the fits, which in the preceding week, had been 101 in number, were reduced to 66 in the following week. In a weak and debilitated boy, aged seven years, the powder of belladonna had proved quite useless; when I tried the powder of iron, so prompt was the effect that in a few days the boy was quite cured; the sister of this boy was also cured with great rapidity. The last case of whooping cough which I have treated lately was of four months duration, and every thing had proved useless, when I gave the iron powder, which in the space of a few days succeeded in making the cough less and less.

In fact, I think I may assert with security, that the subcarbonate of iron enjoys a remarkable property to make the fits less violent, to diminish the number, and after a certain number of days to cure entirely the whooping cough.

It enjoys, besides, the advantage of strengthening the little patients, and gives them force to resist a complaint which sometimes lasts some weeks, and generally leaves the patients weak, low and exhausted. In some of those who have taken it, I have often seen, during the first days, a temporary increase of the cough, but it always subsided after two or three days, and did not prevent the good effects of the medicine. The beneficial results obtained by the use of the iron powder are easily explained by its anti-periodic and anti-neuralgic properties, and it shows a posteriori how much the whooping cough resembles a true neuralgia, or, at all events, a true nervous disease."
I have not tried this remedy, and can, therefore, give no opinion of its efficacy; but should judge from its tonic and blood-restoring properties, that it would prove a useful agent in low anaemic or debilitated cases.

Garlic is a remedy very highly recommended by Dr. Dewees; indeed he states in his work on Diseases of Children, "that he has never employed any remedy of equal efficacy."

A child of six or seven years may begin by taking a third of a common sized clove, morning, noon and evening, in the absence of all febrile excitement, gradually increasing the dose.

Mr. Suteliff combined the Peruvian bark with cantharides, and administered it with great success in whooping cough during twenty years. The following is his formula:

\[
\frac{1}{4} \text{Tinct. Cort. Peruv.} \quad \frac{3}{6} \text{vi.} \\
\text{Elix. Paregor.} \quad \frac{3}{3} \text{ss.} \\
\text{Tinet. Canthar.} \quad 3i \text{ M.}
\]

Of this mixture, small doses were given three or four times a day, gradually increasing until a slight strangury was excited, then the dose was to be diminished.

When the active symptoms have subsided, Dr. Beatty, of Dublin, used the same remedy, and it is also recommended by Dr. Graves. The following is his formula.

B. \text{Tinet. Cinch. Comp.} \quad 3 \text{v.}

\quad " \text{Lyttae,} \\
\quad " \text{Camphora, aa.} \quad 3 \text{ss.}

M. S. A teaspoonful three times a day in flaxseed tea or barley water.

Professor Trousseau recommends the following solution of nitrate of silver in whooping cough; one-fifth of a grain in solution with simple syrup daily.

Cauterization by nitrate of silver has also been employed as a remedy in pertussis by Dr. Eben Watson, of Glasgow. The strength of the solution is gr. xv. to the ounce of water, applied every second day, by means of whalebone tipped with sponge, at first to the pharynx, and then to the glottis and larynx. The whole number of cases treated by M. Joubert and Dr. Watson, in 1854, were 167.

Cured in two weeks, 96 cases, or 57.4 \% per cent.

\quad " in three or four weeks, 61 " \quad 36.5 "

Resisted the treatment, 9 " \quad 5.3 "

Died, \quad 1 " or nearly \quad 0.6 "

To prevent the irritability of the stomach, he gives frequent small doses of of heavy magnesia, combined with a few grains of the trisnitrate of bismuth. He also employs the index finger or teaspoon to make the application to the throat of children.

Nitric Acid was was first recommended by Dr. Arnoldi, of Montreal, as a remedy in pertussis with much success, and it has
been adopted by Dr. Gibb, of London, late of Canada, who has published a work on whooping cough, in which he has given the opinion of ninety-three physicians, in relation to its pathology, with its history, mortality, complications and causes. He has also entered into a consideration of forty-three remedies, viz.: venesection, leeches, emetics, antimonials, external applications, change of air, warm bath, hydrocyanic acid, laurel water, belladonna, opium, hemlock, henbane, digitalis, tobacco, arsenic, silver, iron, zinc, lead, copper, cauterization by nitrate of silver, inhalations, coffee, Peruvian bark, quinine, hydrochloric acid, sulphuric acid, nitric acid, cochineal, alum, tannin, vegetable acids, alkalis, vaccination, cantharides, musk, assafetida, meadow nux vomica, cup moss, castor, the third particular object entertained by Dr. Arnoldi, in using this acid as a remedy, was to introduce the elements of the atmosphere into the blood by the process of gastric digestion, so as to enable the lungs to outstand the stage of temporary asphyxia. Whether the theory be correct or not, the result, he says, of his practice has been almost universally successful." He then goes on to give the outlines of twelve cases which were treated by Dr. A. with success. The doctor met with a few cases where the disease seemed to resist the action of the acid, owing, he remarks, to "spinal torpor at the track of the eighth pair and phrenic. In these the application of an ointment of the biniodide of mercury, so as to produce the specific eruption, and this produced a second and a third time, completely restored the efficacy of the acid." "Dr. Gibb's own cases were sixty-four in number, which are reported as cured; he combines the acid with honey or syrup, and compound tincture of cardamom, &c." Chloroform has been employed by Dr. Fleetwood Churchill, as a specific remedy in whooping cough in four cases which he reports; in two of these the whoop ceased in two days; in the third case it required its use for three weeks; in his fourth case
the patient had to resort to the use of Prussic acid to complete the cure.

"In the case of young children he drops thirty drops on the palm of the hand, the mother to hold this before the mouth and nose of the child, sufficiently near to inhale it fully, but not so close as to exclude a portion of atmospheric air. The best time to begin is just as the patient feels the irritation in the chest increased to a cough.

Still he considers it more suitable for young persons of twelve or fourteen years old and upward. Two successful cases have come under my notice; the method was by placing a small portion of chloroform in a vial, and when feeling the inclination to cough, to inhale by removing the cork, the small bottle being carried in the pocket."

Before concluding my remarks upon the treatment of this disease, I must not neglect to state the great importance attached by some authorities to a change of air in the last stage, or the debility which results from it. Dr. Lombard remarks, that "in many cases which had baffled all attempts to stop the cough, a change of air has accomplished the cure. I have found it equally indifferent to go out of town, or to come into town, provided there be a change; and even in the short distance of half a mile, I have seen the good effects of this plan of treatment." Dr. West, of London, says that change of air with the use of alum during the last stage, generally expedites the cure." According to Dr. Gregory, change of air after severe and protracted cases is the only thing that will give the patient a chance of recovery.

Billard states "that goat's milk, pure or diluted, a good nurse, a residence in the country, particularly in the spring and summer, will materially conduce to the recovery of infants at the breast."

But nothing can be more pernicious than the exposure of children suffering from whooping cough, to cold or inclement weather for it will bring back the cough and cause inflammation of the lungs.—[Medical Examiner]

Vicarious Menstruation.

We find the following cases, reported by Prof. Boring, in an interesting article contained in the Atlanta Medical Journal:

"The first is, that of a married lady, Mrs. ——, twenty-two or three years of age, of rather feeble constitution, sensitive, nervous habit, poor digestion, and generally feeble health. She menstruated first at the usual age and continued healthy in this respect for the space of three or four years, when the catamenial flow was suddenly arrested by falling into a stream of water, the discharge being present at the time. Since then she has been the subject of irregular menstruation, the secretion coming on sometimes too
soon, then too late; at times insufficient in quantity, and at other periods profuse and exhausting. She has been married about two years, but without issue. When I first saw her, she was laboring under what was supposed a dangerous attack of hemorrhage from the stomach and bowels. I found her vomiting and purging what seemed to be decomposed blood, with great exhaustion, and the pulse ranging from 120 to 125 in the minute. It did not occur to my mind at first, that this was an instance of Vicarious Menstruation, but the physician who had been in charge of the case, having blistered over the region of the stomach, and administered the usual remedies, I determined to wait and extend my observations before instituting treatment. In the mean time, developments went far to impress me with the opinion, that the disease, was not one of real hemorrhage, but of menstrual character. Upon instituting thorough inquiry into the history of the patient, I became satisfied of the nature of the case, and treated it accordingly. The attack soon passed off, and the patient recovered a pretty good state of health. My efforts were then directed to the correction of the uterine system and the establishment of healthy menstruation. In this, I have been partially, and only partially, successful. The catamenial secretion has become almost uniform in regard to the time of its recurrence, but is sometimes protracted and profuse, and not unfrequently attended with severe headache and distressing nausea. I have also observed a strong tendency on the part of the stomach, at each monthly period, to become nauseated, and, as I believe, to take on this remarkable action.

"Before concluding this case, I ought to state, that it not unfrequently happens with this patient, that at her menstrual periods the breasts become more or less tumefied and painful, and at the same time similar appearances occur on other parts of the body, particularly on the chest.

"The second case alluded to, is that of a negro woman, belonging to Mrs. ——, about thirty-five years of age, of apparently good constitution, and, with the exception about to be mentioned, general good health.

"She began menstruating at the age of fifteen, and continued regular in this respect until about three years since. Eight years ago, when about twenty-seven years of age, she was attacked with violent pain in the foot, which was succeeded by an abscess, which was lanced, but did not heal. Ulceration succeeded, which continued to move upwards until the leg was involved and became the seat of its permanent location. About three years since, the catamenial discharge began manifestly to decline, and so continued until it ceased altogether, when she was seized with severe shooting pains, passing from the sacro lumbar, to the uterine region, and to the ovaries. At the approach of her next menstrual period, she noticed a slow oozing of blood from the ulcer on the leg, (I
Suggestions upon Animal Odor. [June,
always clearly perceptible to the more acute sensibility of some of the lower animals. It is contended with some degree of plausibility, that each race of mankind has its distinguishing odor. "The Peruvians," says Humboldt, "who in the middle of the night, distinguish the different races, by their quick sense of smell, have formed three words to express the odor of the European, the American Indian, and the Negro." The following observation is quoted by Blumenbach from Thibault de Chambollon, in reference to the Caribbeans. "They have all a strong and disagreeable smell. I cannot," says Chambollon, "give the remotest idea, by description, of its peculiarity. Whenever a similar odor is observed, is called at the Antilles, the Caribbean smell, which proves the difficulty of defining it." It is generally conceded, and most of us have daily opportunity for obtaining olfactory evidence of the fact, that the negro emits a peculiar odor, distinguishing him from the white race. Dr. Carpenter denies this. He allows that the negro, in common with the Hindoo, secretes a more abundant perspiration than the white, but asserts emphatically that it is not more odorous. Dr. Prichard, on the other hand, though an earnest advocate for the unity of origin of the whole human family, remarks in speaking of the perspiration of the dark colored races, that it has a peculiar odor, which is well known in negroes and the Caribbee Indians. On the score of smell, no obstacle exists to the most intimate relations between the white man and the negro, which will not easily yield to a due application of soap and water.

That each individual as well as race, of the human family, is endowed with a peculiar odor, seems evident, from the ease with which the dog scents his master. The interesting history of Julia Brace, an inmate of the Hartford Asylum, affords further evidence of the fact. This unfortunate girl, born blind, deaf and dumb, having no other mode of communication with the external world than by the sense of smell, taste, and touch, by the increased power of which nature strove to compensate her for her severe affliction, was enabled to distinguish persons, by the exercise of the first sense alone. The eloquent author of the "Religio Medici," and the "Ur Burial," has some observations pertinent to this subject. "We acknowledge," he says, that "certain odors attend on animals, no less than certain colors; that pleasant smells are not confined to vegetables, but found in divers animals, and some more richly than in plants; and though the problem of Aristotle inquires, why no animal smell sweet beside the pard, yet later discoveris add divers sorts of monkeys, the civet cat and jazelon, from which our musk proceedeth. We confess that beside the smell of the species, there may be individual odors, and every man may have a proper and peculiar savor, which although not perceptible unto man, who hath this sense but weak, is yet sensible unto dogs, who thereby can single out their master in the dark. We do not deny that particular men have sent forth a pleasant savor, as Theophrastus and Plu-
tarch report of Alexander the Great, and Tzetzes and Cardon do justify of themselves." In that charming specimen of self-portraiture, the autobiography of Lord Herbert of Cherbury, the brave knight, the courteous gentleman, and the learned scholar, presenting in his character the rare union of a complete knowledge of the world and the deepest wisdom of the closet, we read, "It is well known to those who wait in my chamber, that the shirts, waistcoats, and other garments I wear next my body, are sweet beyond what easily can be believed or hath been observed in any else; which sweetness also was found to be in my breath above others, before I used to take tobacco, which toward my latter days, I was forced to take against certain rheumes and catarres that troubled me, which yet did not taint my breath, for any length of time." In a quaint old work entitled "The life of the learned and pious Dr. Henry More, late fellow of Christ College in Cambridge, by Richard Ward, A. M.," the author remarks, "I was mentioning somewhat but just now of his body, and this reminds me of some things that were peculiar in that also as well as in his mind; he has told us occasionally, in a discourse concerning the famous Greatrakes and what was extraordinary in that person," "that not only his own urine had naturally the flavor of violets in it, but that his breast and body, especially when very young, would of themselves in like manner send forth flowery and aromatic odors from them, and such as he daily almost was sensible of, when he came to put off his clothes and go to bed; and even afterwards, when he was older, about the end of winter or beginning of spring, he did frequently perceive certain sweet and heaceous smells about him, when yet there was no such external objects near, from whence they could proceed."* These reports of sweet smells must be taken "cum grano salis," to give them the savor of truth. They probably take their origin in an exaggerated egotism, which envelops in its incense every thing that pertains to self.

In considering the physiology of animal odor, and endeavoring to trace out its cause, considerable difficulty is encountered from the unsubstantial nature of the object of investigation, from the impossibility of discriminating with exactness its varieties, and from the various degrees of sensibility of different observers. Attempts have been made to classify systematically the various odors. The most plausible one divides them into Acidulous, Spirituous, Camphorous, Fragrant, Somniferous, Fœtid, and Alkaline; but these terms do not admit of a strictly philosophical application. All odors are composite, and all individuals are possessed more or less of an idiosyn-

* In a late work, called the Table Talk of Samuel Rogers, we find the following: "Sir Henry Englefield had a fancy (which some greater men have had) that there was about his person a natural odor of roses and violets. Lady Grenville hearing of this and loving a joke, exclaimed one day when Sir Henry was present, "Bless me, what a smell of violets!" "Yes, said he, with great simplicity, "it comes from me."
cracy of sense. These facts present themselves as insuperable obstacles to an exact definition. The physician, in this as in every other department of the science of medicine, must not confide too trustingly in fixed rules, but endeavor to sustain his uncertain steps by individual experience and observation.

Various animals (of which mention has already been made) more prominently distinguished by their odor, such as the musk deer, the civet, and the castor, have peculiar organs, generally situated in the neighborhood of the genitals, devoted to the particular function of generating odor. In others, as the pole cat and the skunk, the stench is due to the ordinary secretions. The odor of these various animals is not of the same intensity at all times and seasons. With some it is voluntary, and thrown out as a protection against attack; and with others it is generated independently of the will in the rutting season, as a source of attraction between the sexes. Animal odor in its natural condition, of whatever kind, is unquestionably a source of pleasure to its possessor, and to those of the same order, and of repugnance to most others, which contribute towards preserving the integrity and individuality of the races, thus administering to a wise purpose in the economy of nature.

The principal sources of odor in man, are the breath, and the different secretions. The air expired gives out the odor, in diminished intensity, of the ordinary articles of diet consumed. The perspiration has naturally an acid odor, differing in degrees in various parts of the body, being more sensible in the groin, in the neighborhood of the genitals, and the feet. The other secretions and excretions have peculiar smells of their own, each of which contributes towards producing in man his distinctive odor. This is affected in a remarkable manner, and very variously, by habits of life, the atmosphere, diet, and more especially disease. Persons engaged in certain employments, whatever may be their attention to personal cleanliness, are observed to become so impregnated with the peculiar odor of the objects by which they are constantly surrounded, as to give it out long after a change of occupation. Chomel states that he had a hostler under his charge at the hospital, who during the course of a bilious fever, exhaled a strong smell of the stable, although all his clothes had been removed, and he had been repeatedly washed. All who approached him felt assured that the odor proceeded directly from the patient himself.

The effect of diet and of various articles used as remedies, in altering the animal odor, is a familiar fact. Those in the habit of eating garlic and onions, habitually smell of the peculiar odor of these plants; and the Greenlander, whose constant vegetable food is of the pea kind, is reported by travellers to emit a leguminous smell; the noisome stench which infects the urine, after eating asparagus, cannot have escaped the dullest sense of smell; and the violet odor from the administration of the oil of turpentine, the peculiar flavor given to the breath and urine and the perspiration by
coppaiba, sulphur, and various other remedies, are the results of
everyday observation. It is doubtless the vapor of the essential oil
belonging to the articles taken into the system, which is thus ex-
haled, and which, though not sensible to chemical tests, becomes
evident to the sense of smell. The varieties of odor among individu-
als are attributable probably to their various modes of life.

The effect of disease is increasing and varying the animal odor
of the human body, more especially recommends itself to the regard
of the medical observer, from its direct bearing upon diagnosis. It
is believed that much useful information would be the result of
directing inquiry and observation upon this subject. Its investiga-
tion is urged upon the physician as promising to result in a fair
return of profit, available for practical purposes. Certain diseased
conditions of the system affect in a remarkable manner the odor of
the breath, and thus afford a valuable symptom of their existence.
In some febrile diseases the breath acquires a sweetish, and in vari-
ous affections of the stomach a strong pungent, acid odor. This
acidity is occasionally of such intensity, as to impregnate every thing
which surrounds the patient, his clothes, bedding, and the whole fur-
niture of the room; and is indicative of a severe form of gastric
disease, which most frequently results in death. In gangrene of the
lungs, the breath emits an odor of putrid flesh, a most unvarying
and important distinctive system of this disease. In several forms
of dyspepsia, in bilious fever, in scorbutous, and in the latter stage of
consumption and typhus fever, it assumes a fetid character. Mercury
salivation, and various affections of the mouth and throat are
easily discernible by the peculiar and offensive odors they give to
the breath. A fit of drunkenness is invariably detected by the spir-
itus-vomitor, and offensive odor exhaled from the lungs, when otherwise there might be
danger of confounding it with severe disease. The perspiration in
a variety of different affections undergoes sensible changes in odor,
worthy of the physician's regard. In prolonged constipation, a very
marked odor of sulphurated hydrogen is observed, especially in
females, who are more apt to neglect the state of their bowels, and
whose false modesty disposes them to conceal their condition from
their physician. This odor will be found a useful, and often the
only attainable indication in such cases.

In various diseases of the skin, a peculiar smell of the transpira-
tion is an unvarying symptom. In all syphilitic eruptions, the odor
is marked and peculiar. In small-pox it is equally distinctive and
prominent, and is by many compared to the smell of mouldiness; in
porrigo favosa also, it resembles the stench of cat's urine, and in
miliary fevers, by some it is likened to the smell of lime, by others,
to that of decayed straw. A peculiar fetid smell of the perspiration
of the feet is frequently observed, and presents a troublesome and
obstinate disorder. The writers upon the sweating sickness, the
terrible plague which devastated Europe in the 15th and 16th cen-
turies, have exhausted their powers of language, in endeavoring to
describe the rankness of the odor of the perspiration which was the prominent symptom in that disease. They speak of the horrible stench of the sick, the odor tereminus, of the afflicted—being surrounded by a thick stinking mist—of their lying, as it were, in a stinking swamp of sweat, and overwhelmed with disgust of themselves, in consequence of their loathsome and ill-odored condition. In rheumatic diseases, most of the secretions and excretions are perceptibly changed in odor, and more especially the sweat, which assumes a nauseous, acid smell. Fevers of a low typhoid character are easily indicated by an odor like that of mice; and in the latter stages of typhus, the smell is decidedly cadaverous. The insane are observed to emit a peculiar odor from the skin. The urine also acquires various odors in different diseases. In Bright's disease it sometimes exhales the smell of boiled beef; and in diseases of the bladder and some typhoid affections, that of shell fish; in acute inflammatory disease, and in various disorders of the kidneys, an ammoniacal odor. The smell peculiar to the faeces varies frequently in disease. It is of a cadaverous nature in typhoid fever and chronic diarrhoea; and resembles that of macerated flesh in certain malignant dysenteries. In many of the diseases of the digestive organs in children, its condition supplies important indications. The stools are offensive in the early stages of cholera infantum, and again in-odorous in its more advanced periods, and in the severe forms of dysentery. The odor of what is thrown up in vomiting aids in forming a just notion of the nature of the disease in which it exists. The sense of smell is necessarily applied to for a right appreciation of the condition of certain ulcers, putrescent wounds, gangrene, and purulent deposits. The odor is the most reliable means for the detection of poisons by prussic acid, and aids in discovering the presence of the metallic, narcotic, and other poisons. The septic condition generally reveals itself by a smell indicative of the process of decomposition. It is to this state that may be attributed the various changes in the animal odor, produced by disease. Whether this disorganization originates in the solids or fluids, or, as is more probable, occasionally in both, it becomes no one in the present state of pathological science dogmatically to decide. That the composition of the humors of the body, is at least secondarily affected, there need be no hesitation in asserting.

It is no longer heresy to speak of the corruption of the fluids, the decomposition, or, in other words, the new chemical combinations set up in them, uncontrolled by the vis vitae. To what else can be attributed the loathsome putrid sweats in the sweating sickness, the cadaverous odor in the last stages of typhus, and the putrescent exhalations in scurvy and other analogous affections? Much progress in pathology has been hindered by the excessive reaction of opinion against the exclusive doctrines of the Humoralists of a past age. Liebig, Prout, Bright, and others, have established a firm foundation of well-ascertained facts, upon which it is hoped
Treatment of Scarlatina Anginosa.

Mr. Pye H. Chavassee, F.R.C.S., read before the Medico-Chirurgical Society of Birmingham, March 4th, 1856, the following paper on this disease:

As I have been very fortunate in my cases of scarlet fever, I consider it a duty to bring my treatment before the notice of the members of this Society.

My plan, of late years, has been so uniformly successful (not having lost a case of scarlet fever for upwards of seven years,) that I have not deemed it necessary to keep a record of cases. The system I adopt, in a case of scarlet fever, is to keep the bed-room cool—I may say cold—and to have a thorough ventilation through it: I, therefore, throw open the windows, be it winter or summer, and have the curtains and valances of the bed removed. If it be winter time, I allow the patient to have one blanket and a sheet; if it be summer time, a sheet only to cover him. If the throat be not seriously affected, I merely order a narrow strip of flannel once round the throat. If the tonsils be much enlarged, I apply a barm and oatmeal poultice to the throat, changing it night and morning. I prescribe an acidulated infusion of roses mixture, that is to say, infusion of roses, with an excess of acid, made palatable with an additional quantity of syrup, to be taken every three or four hours. This is the only medicine I give. When the child is old enough, I find roasted apples, mixed with raw sugar, very grateful to the patient.

Here let me pause, to advise my medical brethren always to make medicines for children pleasant. The administration of nauseous medicine to children oftentimes causes sickness, disgust and irritation, which frequently do more harm than the medicine does good.

But to return to our subject: I avoid purgatives in scarlet fever. I never, on any account, give a particle of opening medicine for the first ten days at least. It is my firm conviction, that the administration of purgatives in scarlet fever is a fruitful source of dropsy, disease and death. When we take into consideration the sympathy that there is between the skin and mucous membranes, I think that we should pause before giving irritating medicines. The irritation of purgatives on the mucous membrane may cause the poison of the skin disease to be driven internally, to the kidneys, throat, pericardium or brain. You may say, do you not purge if the bowels be not open for a week? I say emphatically, No!

Now with regard to food. If the infant be at the breast, keep him entirely to it. If he be weaned, and under two years old, give
him milk and water, and cold water to drink. If he be older, give him toast and water, and plain water from the pump, as much as he chooses; let it be quite cold—the colder the better. Weak black tea, or thin gruel, may be given, but caring nothing if he take nothing but cold water, unless he be an infant at the breast. Avoid broths and stimulants of every kind.

Now, you must warily watch for a change of temperature of the skin. As long as the skin is hot, the above plan I steadily follow; but the moment the skin of the patient becomes cool, which it will do, probably, in five or seven days, instantly close the window, and immediately put more clothes on the bed. But still do not purge. You will find the acidulated infusion of roses most grateful to the little patient; it will abate the fever, it will cleanse his tongue, it will clear his throat of mucous, it will, as soon as the fever is abated, give him an appetite. I believe, too, the acid treatment has some peculiar properties of neutralising the scarlatina poison. I do not pretend to explain how, or why, or wherefore.

When the appetite returns, you may consider the patient to be safe. The diet must now be gradually improved. Bread and butter, milk and water, and arrow-root, made with equal parts of milk and water, may be given for the first two or three days. Then a light batter or rice pudding may be added; and, in a few days afterwards, a little chicken or a mutton-chop.

Within the last few years, I have had some fearful cases of scarlet fever; but, relying on this plan of treatment, I have given, even in very bad cases, a very favorable diagnosis. I have had cases where there have been violent headache and delirium; where there have been immense swellings of the parotid and submaxillary glands; where there has been enormous enlargement and ulceration of the tonsils; where a great portion of the fluid that has been taken by the mouth has escaped down the nostrils; where there has been a purulent discharge down the nose, which discharge has in many instances quite excoriated the skin over which it has travelled;—and yet in such cases the patients have invariably recovered.

There is another important regulation I lay great stress upon. I never allow a scarlet-fever patient, even if the attack be mild, to leave the house under the month in the summer, and then not if the wind be in the East or Northeast; nor under six weeks in the winter. During the last seven years, I have never had anasarca from the scarlatina; and I attribute it entirely to the plan I have just recommended, and in not allowing my patients to leave the house under the month—until, in fact, the skin that has peeled off has been renewed. Dr. Watson, in his valuable lectures, gives some advice on this subject. From the sixteenth to the thirtieth day, I watch the case assiduously, to assure myself that there be no drop-sical approach, carefully examining the urine, ascertaining that there be plenty of it, and that it be not albuminous.

Let me now sum up the plan I adopt:
1. Thorough ventilation, a cool room, and scant clothes on bed, for the first five or seven days.
2. A change of temperature of skin to be carefully regarded. As soon as the skin is cool, closing the windows, and putting additional clothing on bed.
3. Infusion of roses with an excess of acid, sweetened, the only medicine to be given.
4. Purgatives to be religiously avoided for the first ten days at least, and even afterwards, unless there be absolute necessity.
5. Leeches, blisters, emetics, and cold and tepid spongings, inadmissible in scarlet fever.
6. A strict antiphlogistic diet for the first week, during which time cold water to be given ad libitum.
7. The patient not to leave the house in the summer under the month; in the winter, under six weeks.

My firm conviction is, that purgatives, emetics, and blisters, by depressing the patient, sometimes cause scarlatina anginosa to degenerate into scarlatina maligna; for although I have had numerous cases of scarlatina anginosa (my practice being much among children,) and some of the cases very severe ones, I have never had, since I have adopted my present plan of treatment, one single case of scarlatina maligna. I have such faith in my present plan of treatment, that if it be duly followed out, I should seldom despair of even the worst of cases recovering.

I am aware that some of our first authorities advocate a different plan to mine. They recommend purgatives, which I may say, in scarlet fever, are my dread and abhorrence. They advise cold and tepid spongings—a plan which I think dangerous, by driving the disease internally. Blisters, too, have been prescribed; these I consider weakening, injurious, and barbarous, and likely to irritate the already inflamed skin. They recommend leeches to the throat, which, I am convinced, by depressing the patient, lessen the chance of battling against the disease, and increase the ulceration of the tonsils. Again, the patient has not too much blood; the blood only is poisoned. I look upon scarlet fever as a specific poison of the blood, and which will be eliminated from the system, not by bleeding, not by purgatives, not by emetics, but by a constant supply of fresh and cool air, by the acid treatment, by cold water as a beverage, and for the first few days by a strict antiphlogistic diet.

Sydenham says, that scarlet fever is oftentimes “fatal through the officiousness of the doctor.” I conscientiously believe that a truer remark was never made; and that, under a different system to the usual one adopted, scarlet fever would not be so much dreaded.

Let me urge my medical brethren to give my treatment a fair trial, and I am convinced that they will then add their testimony to mine, that the plan is a good one. I have spoken out fearlessly and boldly; but I feel so satisfied of the truth of my sentiments, and of
the immense importance of the subject, that I could not be less em-

Varioloid and Varicella. By Prof. Trousseau.

Many practitioners of high scientific repute believe that the same relationship prevails between varicella and varioloid as between this last and variola. This it is impossible to admit. If we bring an individual having genuine vaccine scars in contact with a small-pox patient, he may take a varioloid, and, while suffering from this, he may communicate a true variola to a subject who has neither been vaccinated nor had the smallpox. If we take the pus from a varioloid patient, and inoculate the healthy person, as has been done in epidemics when vaccine lymph has run short, we produce the legitimate smallpox. These are so many proofs of the identity of the two affections. It is not thus with varicella. It neither arises from contact with varioloid, or is capable of communicating true variola. We see it arise just as easily in persons who have had that disease, as in those who have been exempt from it; in the unvaccinated, and in those who have been vaccinated. M. Trousseau has seen an epidemic of varicella at the Neckar Hospital, which attacked all the children, a short time after vaccination had been quite successful. This is an important question in hygiene; inasmuch as varicella, of itself, is an affection destitute of danger; and we may leave the subject of it in communication with surrounding persons, without the fear of finding a serious malady developed. The same practice, pursued in varioloid, might give rise to a mis-
chievous development of variola.

Varioloid.—Thirty-five years ago, an authentic example of small-pox after vaccination was unknown, although Jenner had seen examples of this, and had indicated them; but, as there are always to be found persons more royal than the king, so there were practi-
tioners who accorded to vaccine more than he who had discovered and propagated it had claimed for it. In 1825, a very violent epi-
demic of small-pox prevailed in Paris, during which individuals who had been vaccinated were attacked. M. Husson, who was one of the Vaccine Committee in 1800, and one of the most ardent pro-
motors of vaccination, contested the validity of these cases; and so extraordinary was the circumstance thought to be, that whenever a varioloid patient arrived at the hospital, the bells were loudly rung, in order to call as great a number of practitioners together as possible for the verification of the fact. An epidemic at Edinburg, and two at Marseilles, multiplied examples. The attention of gov-
ernments became aroused, and especially in Germany, where re-
vaccination has been rendered obligatory. At the present day, there is no hospital in which we may not see persons having the vaccine scars the subject of variola, and even dying of it. It may occur even as early as the second or third year after vaccination;
and M. Trousseau has seen an infant at the Necker Hospital take a genuine variola six weeks after a successful vaccination. A mother and her three children also took it soon after vaccination, and in the woman, who died, it was confluent.

At its onset varioloid differs in nowise from variola. Fever arises and continues until the eruption appears. We see, however, more frequently supervene a scarlatiniform or petechial eruption, but it does not influence the prognosis unfavorably, as in variola. The eruption does not differ from that of variola, until the eighth day; but at the eighth day from the commencement, or the fourth from the eruption, in place of tumefaction and inflamed areola supervening, we find the integuments become pale and flaccid. The pustules do not become larger, remain accuminuted, and umbilicate but little. They dry without bursting, become rugous, and pass into the "horny" condition. Those of the limbs, in place of acquiring a size three or four times as large as those of the face, do not increase, and cornify in the same manner. By the tenth day the eruption is dry. In more serious forms, when the varioloid, as some times happens, is confluent, there is sometimes secondary fever; but at the tenth day, the tumefaction stops short, without any accident supervening, while in variola its doing so would be of fatal au- gury. The whole terminates with a rapid desquamation, although marks may remain, especially in persons with delicate skins.

Varicella.—When a child is brought to the Necker with varicel- la, the date of its admission is noted, and sixteen or seventeen days later, other children always exhibit the same disease. If, on the contrary, it had been a small-pox case, other cases would have been observed from nine to eleven days afterwards—showing that the period of incubation is very different in the two affections. A child, in good health, whether vaccinated or not, whether having had variola or not, becomes suddenly the subject of a sharp attack of fever, there being present neither vomiting nor lumbar pain. The next day, or sometimes even the same day, fifteen or twenty red points are observed upon the skin, and some hours later the epidermis is raised. Twenty-four hours after the appearance of the red points we observe bulle or phlyctænae, quite rounded in form, and transparent, as if they contained water. They resemble sudamina, magnified from ten to fifteen times. In variola and va- rioloid the eruption never assumes this bullar form. In those dis- eases, too, the fever and the eruption continue until the latter is completed. In varicella the phenomena take place successively. There is a day of complete apyrexia, the fever comes on during the night, and the next day we find from thirty to forty points of erup- tion. The same takes place during the next twenty-four hours, and so on for four or five days, so that we have four or five successive eruptions. Twelve hours after the appearance of the eruption, there is a limpid bulla formed, and forty-eight hours after the liquid has become lactescent, which is never observed in any form of va-
riola. In variola discreta the eruption is of a very regular, rounded form, like wax dried upon the skin; but after two or three days the bullae of varicella become unequal, irregular and puckered, but never offer any appearance of umbilication. When pus begins to form in the phlyctææ, a vivid red, inflammatory areola is produced, larger in size than the variolous areola. When the pustule bursts it leaves a dark brown scab, having nothing in common appearance with the yellow scab in variola, but much resembling that of echthyma. From twelve to fifteen days are required for the complete evolution of a variolous pustule, while four, or at most five, days suffice in varicella. So little dangerous is this affection, that M. Trousseau knows of no example of its having terminated fatally. Still, in some children, who manifest the purulent diathesis, it is followed by successive eruptions of pemphigus, which terminate by exhausting the patient and causing death. But these deaths cannot be imputed to the varicella itself.

Thus then, variola and varioloid are identical; while varicella is distinguished from these by the differences in its period of incubation and febrile paroxysms, by the form and duration of its eruption, and by the absence of danger.—[Ranking’s Abstract.

Case of Varicocele cured by Retrenchment of the Scrotum. By Sam’l B. Richardson, M. D.

The well-known chagrin and mental despondency, resulting sometimes in mono-mania and suicide, which constitute a part of the history of this distressing and not unfrequent malady; not to mention the uncertainties, danger and sometimes fatal results of operations for its radical cure heretofore, impart more or less of interest to every well attested case of successful treatment. With these views, the following observations are placed before the profession.

Case. B——H——, Esq., of Southern Kentucky, aged 29 years, unmarried, of respectable family, possessing a good constitution, the only disease from which he has ever suffered being intermittent ague and fever, which occurred during his adolescence and early manhood.

In the midst of health and cheerfulness, on the 27th of October, 1838, an amicable rencontre took place between himself and a companion, in a tussle or wrestle, resulting in his friend falling beneath him. Just at the moment of greatest effort, he felt a sharp cutting pain, of short duration, in his left spermatic cord near the external ring. The day succeeding, a tumor was discovered in the cord near the testes, which gradually increased in size up to the time of operation. A month succeeding the accident, pain, with a sense of languor and aching, was felt in the right groin, hip, and loins, attended with no inconsiderable mental despondency, which symptoms afterward frequently exaceribated and remitted. In the
month of May, 1839, he came to Louisville to consult me respecting his case, when I discovered a marked varicocele of the left spermatic veins, with an increase of the constitutional and mental symptoms, and the digestive organs not acting healthfully.

I informed him that nothing short of a surgical operation promised permanent benefit; but to this he objected; and, preferring a trial of other remedies first, and promising if they proved unsuccessful, he would return in the autumn, and submit himself to any treatment I might consider best. The remedies then prescribed were designed to correct the disordered state of the stomach and bowels, and to compress the enlarged veins; but they only succeeded in ameliorating the general and local distress, without lessening the original malady. On the 13th of October, this patient arrived in Louisville a second time; and three days thereafter I operated upon him by removing quite a large section of the entire scrotum and sub-jacent cellular tissue, in the presence of and aided by Drs. Donne and T. L. Caldwell. The part removed, which laid bare the testes, measured, when moderately stretched, $5\frac{1}{2}$ by $3\frac{1}{2}$ inches in extent. The wound was closed by five interrupted sutures, and interposed adhesive strips, over which was placed a light dressing of lint spread with simple cerate, and the parts placed in an elastic silk suspensory bandage, firmly drawn up. Adhesion took place throughout, with slight exception, and but little constitutional reaction occurred. The fourteenth day succeeding the operation, Mr. H. visited my office, when I could discover no evidence of varicocele. He left for home the eighteenth day after the operation. The evening before, I was happy to find, upon a careful examination of the cord, that no enlarged veins existed while he was in the erect posture, and after continuous exercise about the city; nor was he able to enlarge them by the most forcible expulsory efforts of the diaphragm and other abdominal muscles. All his previous pains, and the uneasiness of the right groin, hip, and loins, had ceased, and there remained but a slight fulness of the cord at the external abdominal ring.—[Louisville Kentucky Review.

Cure of Itch in half an hour by Sulphur in a liquid form.

Dr. E. Smith called attention to an article in the Gazette Hebdomadaire, by Dr. Bourgignon, in which is a confirmation of the value of the treatment of itch, in Belgium, by sulphur, combined with lime, in a liquid form. The remedy is prepared by boiling one part of quick lime with two parts of sublimed sulphur, in ten parts of water, until the two parts are perfectly united. During the boiling it must be constantly stirred with a piece of wood, and when the sulphur and lime have combined, the fluid is to be decanted and kept in a well stopped bottle. A pint of the liquid is sufficient for the cure of several cases. It is sufficient to wash the body well with warm water, and then to rub the liquid into the skin.
half an hour. As the fluid evaporates, a layer of sulphur is left upon the skin. During the half hour the acarus is killed, and the patient is cured. It is only needful then to wash the body well, and to use clean clothes. In Belgium the treatment is introduced by first rubbing the body for half an hour with black soap; but this does not appear to be necessary. The only essential act is that of the careful application of the fluid sulphur. The lime is of no importance in the treatment, except to render the sulphur soluble, and such would probably be the case if potass or soda were employed. The chief point in the plan thus employed, which is an improvement upon the mode of application of sulphur in substance with lard, is the more ready absorption of the remedy, and consequently the more certain and quick destruction of the insect, by using sulphur in a fluid form. In so disgusting a disease, it must be of great moment to be able to cure it in an half hour.—[Asso. Med. Jour.

EDITORIAL AND MISCELLANEOUS.

BIBLIOGRAPHICAL.

Physical Exploration and Diagnosis of Diseases affecting the Respiratory Organs. By Austin Flint, M. D., Professor of the Theory and Practice of Medicine in the University of Louisville, &c, &c. Philadelphia: Blanchard & Lea. 1856. 8vo., pp. 636. (For sale by T. Richards & Son.)

Prof. Flint's contributions to practical medicine have already established a high reputation which will be found fully sustained by the valuable treatise before us. It is high time that the profession in our country should place themselves above the reproach of ignorance on so important a branch of their studies as Diagnosis—and we need not add that this can only be done by a careful application of the physical means so elaborately and lucidly developed in this work. No man in this country has done more than Prof. Flint to incite our countrymen to a proper appreciation of their value.

On some Diseases of Women admitting of Surgical Treatment. By Isaac B. Brown, F.R.C.S., Surgeon Accoucheur to St. Mary's Hospital, &c, &c. Illustrated by 24 wood cuts. Philadelphia: Blanchard & Lea. 1856. 8vo., pp. 276. (For sale by T. Richards & Son.)

This work fills an important gap in English medical literature, and cannot fail to be well received in this country. The author treats of Ruptured Perineum, Prolapse of the Vagina, Prolapse of the Uterus, Vesico-vaginal Fistula, Lacerated Vagina, Polypus of the Uterus, Stone in the female bladder, Vascular tumor of the meatus urinarius, Imperforate hymen, Encysted tumor of the labia, Diseases of the Rectum resulting from certain conditions of the uterus, and ovarian dropsy. We cheerfully commend it to our readers.

Prof. Miller's works on Surgery are so generally known and appreciated in the United States, that it is barely necessary to state this is an improved edition of his "Principles," to secure for this book an extensive sale. It is reproduced in the best style of the distinguished publishers.


This is a capital manual, already favorably known by its former edition, published under the supervision of Dr. Hays. It will answer the purposes of a text-book for students, who cannot be expected to study the more elaborate works on this subject.


This work, after general considerations on the Human organism and its forces, treats of Zoo-chemistry, or of the nature of the organic substrata of the animal organism; of Phlegmato-chemistry, or the science of the animal fluids; of Histo-chemistry, or the science of the animal tissues; and of Zooc-chemical processes, or the forces and laws of the organic movements—followed by dissertations upon Circulation, Reproduction, &c. It bears the impress of German learning and industry, and is calculated to enlarge very much our views of physiological operations.


We doubt whether any medical work has met with more ready sale than this epitome. It is remarkably well adapted to the purposes of aspirants for the Doctorate, and although it may enable the lazy and unambitious to substitute a superficial knowledge for what should be more profound, it may be made very useful, even to the well read, as a convenient remembrancer.

This is a valuable little work, which we have already had occasion to recommend upon the appearance of the first edition. It contains much useful matter in a small compass, and is therefore well adapted to students and men engaged in active practice.


This atlas is designed as an accompaniment to the author's Treatise on Diseases of the Skin, and must materially assist in the study of this difficult class of affections.

The "Woman's Hospital" of New York.

We have before us the first Report of the managers of this humane institution, of which Dr. J. Marion Sims is the attending surgeon, whose skill in the treatment of Vesico-vaginal fistula is so justly appreciated by the profession. “Seventy-three cases have been received since the opening of the hospital, and twenty of these discharged perfectly cured. All cases now remaining are perfectly curable.” This is certainly a very flattering account, and must add to the already extended reputation of the distinguished surgeon, whose indefatigable zeal and industry have enabled him to master an infirmity, until recently deemed incurable. It is but fair, however, to state that vesico-vaginal fistula has been for some years back treated successfully by Jobert of Paris, Mettauer of Virginia, Hayward of Boston, and others.

The Louisville Review: a bi-monthly Journal of Practical Medicine and Surgery. Edited by S. D. Gross, M. D., Professor of Surgery in the University of Louisville, and T. G. Richardson, M. D., Demonstrator of Anatomy in the University of Louisville. Terms: $3 00 per annum, in advance.

We have received the first No. of this work, which takes the place of the Western Journal of Medicine and Surgery, recently discontinued. From present indications the "Review" bids fair to be a valuable acquisition to our periodical medical literature. The well established reputation of its senior editor will doubtless secure to it a liberal patronage.

Necrology.—It becomes our painful duty to record the demise of Dr. Richard Banks, of Gainesville, Ga., who died on the 6th May, in the 62d year of his age. Born in Elbert county in 1794, he was graduated in Philadelphia in 1821, and practiced his profession successfully in his native county until 1832, when he removed to Gainesville. Dr. B. is one of the
first who acquired any distinction in Georgia as a surgeon, and his success was such that he was, by common consent, regarded as the leader of the profession in his section of the State. It is much to be regretted that, being a very plain, unobtrusive man, and averse to writing, he has left no record of his observations and extensive surgical experience.

Dr. John C. Warren, of Boston, has also paid the last debt of nature at the advanced age of 78 years. At the head of Surgery in New England for half a century, none was more highly esteemed and respected as a member of society and a man of science. His professional enthusiasm was proverbial, and is illustrated in one of the provisions of his will, in which he directs that his body shall be carefully dissected, and his skeleton prepared for preservation in the College Museum. His object in this disposition of his remains was to aid in dispelling the prejudices of the people against the dissection of human bodies.

American Medical Association.—We are indebted to the kindness of Dr. Wm. Brodie, of Detroit, for an early copy of the proceedings of the recent meeting of this body. We regret that we have not room for them in the present number, and must therefore defer them till our next.

Disinfection and Preservation of Nitrogenous Manure. (Read before the National Institute, Dec. 3, 1855, by Dr. D. Breed, U.S. Patent Office.)

Intelligent persons are aware that the poisonous effluvia emanating from gutters, sewers and yard vaults would soon generate a terrible pestilence in any city or town, but for the constant diffusion of the poison. But it may not be so generally known that some of these hot-beds of disease can be easily rendered comparatively harmless and inoffensive. Our affected refinement shrinks from the mention of a disgusting evil which from habit we have come to regard as necessary. Is it not, however, a false delicacy which makes us content to inhale with every breath such pestilential exhalations, and yet forbids a discussion of their properties, origin, or effects, even with a view of reform? Shall we not be more truly refined when one single square of some American city is purified from the stench of night-soil, made ten-fold more intolerable by the ignorance of the scavengers who infest every neighborhood, administering slow poison to us in our sleep, not unfrequently falling victims thereto themselves?

Many years ago the atmosphere of Paris had become so polluted as to excite the most alarming apprehensions as to public health. Attention was directed to the privies as the chief nuisance, and various reformatory plans have been tried, until the united skill of chemists and of practical men has made Paris in this respect a model worthy of imitation. At present complete deodorization and disinfection are accomplished, so that neither scavengers nor others need suffer annoyance. Many other European cities have reformed in this respect, and America has no longer an excuse for neglecting this much needed sanitary reform.

In privy vaults there is a process of putrefaction constantly going forward, and a consequent incessant escape of poisonous gases into the atmos-
Moreover, the fluid portions of the night-soil percolate the earth underlying all our cities. These matters, washed forward by the rains, diffuse the products of putrefaction everywhere; then the heat of summer, by evaporation at the surface, may bring poisonous effluvia up from the whole area of the city. The waters of our wells, as is known, are impregnated with these products. Not long since an intelligent citizen requested me to make a chemical examination of the water of a well which was formerly very good, but was now strongly flavored, and by several persons it was thought to have the taste of a chalybeate water. Upon testing, the water was found to have imbibed rather freely from the privy products of the neighborhood! Such wells are common.

Not only does public health demand that this grievous nuisance should at once be abated, especially as the requisite means are simple and well known, but agriculture seconds this demand, inasmuch as night-soil is valuable as manure, particularly when treated so as to retain all the nitrogen, most of which is liable to escape in the ammonia which is generated during the process of putrefaction. Indeed it contains all the elements derived from the soil by vegetation, and hence is an excellent fertilizer.

The reform in Paris, to which allusion has been made, was effected mainly by the Société d'Agriculture and the Société d'Encouragement pour l'Industrie Nationale, and in the United States we may expect reform from the exertions of agriculturalists rather than from those of sanitary officers.

One general criticism may be applied to the means commonly recommended for disinfecting and deodorizing privies, sewers, and gutters. The methods proposed do not meet all the chemical conditions; they attempt too much with a single reagent. In night-soil many elements occur, forming various compounds, organic and inorganic, some acid, some alkaline or basic, some united as fixed salts, others becoming gaseous, and tending to escape into the atmosphere. Among the gaseous products are sulphydric acid, carbonic acid, ammonia, or carbonate of ammonia, together with various exhalations not yet investigated. But the quantity of some of these is so inconsiderable as to require little attention. Now, in order to completely deodorize and disinfect night-soil, it is necessary to add such different chemical reagents as will unite with each of these gases, converting them into constituents of fixed compounds. But it often happens that a reagent that will fix one gas will expel another. Lime is in common use, because at first it mostly destroys the odor by decomposing the sulphydric acid and forming sulphide of calcium and water, \( \text{H}_2\text{S} \rightarrow \text{CaO} = \text{CaS} + \text{H}_2\text{O} \). But the sulphide of calcium thus formed is liable to be decomposed by carbonic acid, which is always present in the mass. The lime also fixes the carbonic acid, though the former expels ammonia. Moreover, lime may hasten the oxydation of the nitrogen, forming nitric acid, which latter may either fix ammonia or expel carbonic acid. Thus lime alone cannot be an efficient disinfectant.

Again, sulphate of lime, (plaster,) either calcined or simply pulverulent, is in use. In this case the sulphuric acid unites with the ammonia of the night-soil, and the lime with the carbonic acid, \( \text{NH}_4\text{O}, \text{CO}_2 \rightarrow \text{CaO}, \text{SO}_3 = \text{NH}_4\text{O}, \text{SO}_3 \rightarrow \text{CaO}, \text{CO}_2 \). The lime also, as before, will decompose the sulphydric acid, but the resulting sulphide of calcium is still liable to decomposition. Calcined plaster itself may evolve sulphydric acid by the simple addition of water, owing to the presence of some sulphide of calcium. Therefore plaster, though better than lime, can never be an
effectual deodorizer. In the play of chemical affinities, when either lime or plaster is used, some of the sulphur must alternately unite with hydrogen and with calcium until it escapes in sulphydric acid at the surface. The employment of bleaching salt (so-called chloride of lime) is very objectionable on account of the chlorine thus evolved, and the consequent impregnation of the air with a poison often more deleterious than the effluvia which it is intended to destroy.

If, instead of lime or its salts, we employ a small portion of the salt of a heavy metal, as sulphate of zinc, iron, or of copper, the sulphydric acid is decomposed, as before, and fixed sulphide of the metal is formed. This sulphide is not decomposable by any substance present. Here, then, we have a complete remedy for sulphydric acid. Sulphate of iron may be the cheapest salt for this purpose, but it, as well as salts of copper, forms a black sulphide, sometimes objectionable on account of the color. The zinc salts, however, form a white sulphide, which can never render a city smutty, however freely used. Of a solution of sulphate of zinc (of 35° to 40° Baume) it is found necessary to employ only 2 p. c. of the volume of night-soil to decompose all the sulphydric acid, and then lime and its sulphate may be added to neutralize the ammonia and carbonic acid.

Of all the disinfectants and deodorizers hitherto employed no substance produces more remarkable effects than fresh charcoal in a pulvurulent state. Its antiputrescent effects were discovered by Lowitz about 1790; but the discovery has been slowly applied. In 1829, Frigerio proposed to employ charcoal for preserving meat, and in 1836 he published in the Brevet d'Invention an account of a safe, consisting of a double screen of wire gauze with the interspaces filled with pieces of charcoal. This safe was found to preserve meat in the hottest weather perfectly sweet for a whole week. During many years charcoal has been (especially in Europe) extensively mixed with human excrements, for which purpose it has been found to be admirably adapted, not only by its deodorizing and disinfecting qualities, but also by its being itself a powerful stimulant to the growth of vegetation. The experiments of Dr. Stenhouse, of London, prove that a carcass covered with charcoal powder emits no unpleasant odor during its entire decomposition; that hospital gangrene and other putrid sores are arrested by the use of charcoal. He suggests the use of charcoal air-filters for admission of air to apartments in infected districts, and charcoal respirators for those exposed to infection. He thinks the charcoal decomposes effluvia by simple oxidation, converting their carbon into carbonic acid, their hydrogen into water, and thus hastening decomposition, instead of being antiseptic, as heretofore supposed. The complete success of the charcoal screens used in London clearly indicate the propriety of using charcoal to arrest the contagion of yellow fever. During the recent discussion respecting the burning of bodies, a lady suggested that charcoal be strewn freely into the grave so as to surround the coffin, thus completely preventing the escape of effluvia.

For the last twenty years chemists have been employed in applying their science to the manufactory of poudrette, and in investigating the causes of insalubrity connected with the management of night-soil. These investigations, conducted in different countries, have required such varied experiments that the labor may be regarded as only begun. In the present state of our knowledge we may briefly enumerate the chief emanations from night-soil, with the best disinfectant or corrective known, as follows:
1. Sulphydric acid; sulphate of zinc or of iron, (vitriol solution.) 2. Carbonate of ammonia; sulphate of lime, (powdered plaster.) 3. Free carbonic acid; lime, (quick or slacked.) 4. Putrid exhalations, (not investigated;) charcoal, (better fresh and powdered.) Only a very small portion of vitriol solution is necessary at one time, and this should be so sprinkled over the mass as to meet the gases rising to the surface. Plaster, lime, and charcoal may be used more freely; yet a small portion of these, if frequently strewed upon the surface, will be sufficient. It has been suggested that the disinfectant be supplied, as water is, from a reservoir, by simply turning a faucet.

In the manufacture of poudrette the chief objects are, first, to preserve all the fertilizing matter of night-soil; and, secondly, to expel the excess of water, amounting in some instances to nine-tenths of the whole volume, (ordinary excrements when fresh are four-fifths water.) An excellent method of accomplishing these objects is to mix thoroughly with the night-soil a solution of sulphate of zinc, and leave at rest for a time, when the watery portion may be pumped off and allowed to flow into a sewer or gutter, (Paris Medical Police,) without forming a nuisance. It may be well to allow a small jet of solution of sulphate of zinc to mix with the stream (Messrs. Quesney) as it issues from the pump. The disinfected residue in the vault may now be removed, spread in thin layers on a resin or other water-tight floor, (A. Wallet,) and allowed to evaporate to dryness under an open shed or by furnace heat. The poudrette has been sometimes pressed in cubical masses, pierced with holes, to promote desiccation. Thus prepared, it requires no packing for transportation or preservation. A little rain will do it no harm if the wet surface be immediately dusted with plaster. Poulet has recommended the employment of an emulsion of oil and alkalies in connexion with the zinc salts, in order to obtain a clearer liquid to pump off.

But a better method is recommended by Susser & Fouchet, Lepelletier, (Moniteur Industriel,) by which all the mineral and organic matters are entrapped in a gelatinous precipitate of silica. This process is employed after the ammoniacal solutions have been fixed. An abundance of silicate of soda is mixed with the night-soil, and then sulphuric or some other strong acid is added to precipitate the silica. \( \text{Na}_2\text{O} \cdot \text{SiO}_2 + \text{H}_2\text{SO}_4 = \text{Na}_2\text{SO}_3 + \text{SiO}_2 \). The silicate of soda is very cheaply prepared by heating in a furnace a mixture of common salt and sand: \( \text{NaCl} + \text{SiO}_2 = \text{Na}_2\text{O} \cdot \text{SiO}_2 + \text{Cl} \). As the refuse zinc salt may be employed for artificial manure, Gaultier de Claubry has suggested that the extensive utilization of such refuse in this way may so reduce the expense of operating the galvanic battery as to introduce it as a common power apparatus.

In Paris it was found that one man with a horse would manufacture, in the old way, with plaster and coal, 25 tons of poudrette per day, and that the entire cost of manufacture amounted to only $1.87 per ton. According to chemical analysis the nitrogen in night-soil is 13 per cent. of the dry matter. Now, the best Peruvian guano contains only 14 per cent. of nitrogen, whilst the average quality contains but 6 or 7 per cent. Therefore poudrette, properly prepared, will be nearly as valuable as the best Peruvian guano, and of twice the value of the average. The experience of farmers sustains the results of analysis.

The nitrogen in urine is from 25 to 33 per cent. of the solid matter. A manure prepared from urine, and sold under the name of urate, is a most powerful fertilizer, equal to four times its weight of average guano, or twice the value of best Peruvian.
In the various processes of manufacturing poudrette it is too often forgotten that the night-soil should be treated before the urine is decomposed. The urine is much richer than the feces in nitrogen. The nitrogen in urine is found chiefly in that remarkable compound denominated urea, which forms white prismatic crystals, quite odorous. Urea contains two atoms of nitrogen, two of carbon, four of hydrogen, and two of oxygen, and its formula, deduced from its ultimate analysis, would give, \( N_2C_2H_2 \). But organic chemistry regards such a formula empirical, and groups these elements according to their products of decomposition, and the compound which may be formed by a part or all of them with oxygen or with the halogens, by substitution or otherwise.

The true constitution of urea is expressed by the following formula:—
\[ (N\,C_2\,H,\,O_2) \rightarrow N\,H_3 \] it is therefore urenoxyd-ammonia. Now, this urea is rapidly decomposed even at ordinary temperatures, and its elements, with two atoms of water, form two atoms of ammonia and two of carbonic acid, \( (N\,C_2\,H,\,O_2) \rightarrow N\,H_3 \rightarrow -2\,H\,O = 2\,N\,H_3 \rightarrow 2\,CO_2 \). Both of these products are volatile, and therefore, if urine be allowed to decompose, the most valuable constituents for manure are lost in the atmosphere.

In estimating guano the nitrogen is the true standard of value. Estimating night-soil in the same manner, and assuming that we preserve all the nitrogen, the city of New York and environs would afford manure equal in value to 51,000 tons of best Peruvian guano, or $2,550,000 per annum. During the last seven years, according to the Report of the Patent Office for 1854, the United States has imported on an average 45,869 tons of guano annually. Much of this guano is worthless, being so when first obtained, or having been washed in order to manufacture ammoniacal salts for sale. The practice of washing guano is a common trick of trade, and usually a safe one, since farmers never employ a chemist, and washed guano can be bought at a comparatively low price. But even estimating all the imported guano as equal to the best Peruvian, worth $50 per ton, it would amount to but $2,293,450, which is less by $256,550 than the value of the night-soil of the city of New York, as above estimated. Great Britain has imported on an average during the last seven years 138,496 tons of guano per annum, which, at $50 per ton, amounts to $6,924,800. The night-soil of London and environs would yield annually nitrogen corresponding to 120,000 tons of best Peruvian guano, and would doubtless exceed the amount of nitrogen imported. As long ago as 1834 it was estimated that London wasted manure (principally night-soil in the Thames) to the amount of $2,000,000 per annum. How much London or New York now wastes I am not informed; but all will agree that public health and the interests of agriculture most earnestly demand a thorough sanitary reform in all our cities and towns.—[National Intelligencer.

Alexis St. Martin.—We were gratified a few evenings since, in company with a number of medical gentlemen, by a sight of the veritable individual who was many years ago the subject of the experiments of the late Dr. Beaumont, on digestion, and whose name has become so identified with them in all works on that subject in every part of the world. He is a Canadian by birth, a man of about medium height, of dark complexion, and rather hard features, now 52 years old, and bearing his age remarkably well. He is a laborer by occupation, and never a soldier as has been supposed; and at the time of the accident which ended in making his name so fami-
liar to the scientific world, was in the employ of the Hudson Bay Company. The injury was produced by the accidental discharge of a gun, which carried away a part of some of the ribs, and made an opening into the stomach on the left side, and was so severe in its character as to threaten to prove speedily fatal. There is now a fistulous opening, oblong in shape, about an inch and a half in its longest, and three-quarters of an inch in its shortest diameter, nearly in a line with, and about four inches below the nipple, and between two and three inches from the cardiac orifice. It occurred in 1822; and since the experiments of Dr. Beaumont, St. Martin has enjoyed uninterruptedly good health, and has supported a large family by manual labor. He is now under the care of Dr. Bunting, an English surgeon, who has made provision for the support of his family, and who proposes to take him to Europe, where, we trust, he will be made the subject of more extensive, more varied, and more accurate experiments than heretofore. We also saw him again at the New York Hospital, where a few experiments were tried, such as introducing a thermometer within the stomach, &c. We understand Dr. B. proposes to make him the subject of a public lecture, for the purpose of realizing something for his benefit. We trust that the opportunity of his presence among us will be improved for purposes of science, and that something will also be accomplished towards relieving him from the necessity of returning to manual labor.—[N. Y. Med. Times.

A new view of the Law with reference to patent nostrums.—The following documents, taken from the New York Journal of Medicine, will sufficiently explain themselves:

BUFFALO, March, 1856.

Dear Sir:—Will you do me the personal favor to furnish me with a written statement of your views on the subject of copyrights for labels, etc. as expressed to me in a conversation yesterday.

Coming from a gentleman of your rank and position, I am certain that they would possess interest; and I would like to give them publicity through some of our Medical Journals.

Sincerely wishing that the public had many more such faithful servants,

I remain yours truly,

AURELIAN CONKLING, Esq. FRANK H. HAMILTON.

DISTRICT COURT OF THE UNITED STATES FOR
THE NORTHERN DISTRICT OF NEW YORK,
CLERK'S OFFICE,
BUFFALO, March 18th, 1856.

Dear Sir:—I am much obliged for the interest manifested by you in the subject with which I lately troubled you; and although it is probable that in your politeness you over-estimate the importance of the views expressed to you, and of those contained in my letter to the Hon. S. G. Haven, still it is possible that they may be useful to others, and I therefore will proceed to repeat them here, for such use as you may deem expedient. I am much pleased with the polite interest you manifest in the subject under consideration, because, I regret to say, I have heretofore experienced very different treatment from some persons who have found their way into your profession, and who not only so far forgot their professional obligations, as to manufacture nostrums, but were also guilty of low abuse of an officer
whose sense of duty would not admit of his being made instrumental, improperly, in imposing their mixtures upon the public.

The immediate purpose of my letter to our representative in Congress, was to invoke the attention of the Department of State to what it seems to me is a great abuse and perversion of the provisions of law in relation to copyrights. The subject of copyrights is under the general supervision and control of the State Department of the United States; and officers who have subordinate duties to perform must, to some extent, be subject to directions and instructions from that department. Applications are frequently made to me, to record, under the provisions of law above alluded to, labels of medicines, compounds and mixtures, of different grades of pretension, from an "elixir of life" or a "diarrhoea cordial," to a hair-dye or a corn-salve.

Upon the occurrence of the first application of this sort, a number of years ago, being asked my reasons for refusing to treat the subject as one embraced in the provisions of the law, entitled "An Act to amend the several acts respecting copyrights," I made the following reply, a recital, in part of which, will express the views which have ever since governed me, upon the subject:

"I am sorry that my views of the Act of Congress, above mentioned, are such as to interfere with your interests or wishes. It is not the province of the Clerk of the District Court to 'grant' anything. His duties are ministerial, and upon the subject of copyrights he is bound to do what he is directed to do, by the Act of Congress.

If I should record the label sent you, and should send you a certificate of the fact, I would thereby 'grant' you nothing; nor would you gain anything, unless the act of Congress embraces such a subject.

I have examined, with considerable care, the Act of Congress above mentioned, and I will state some of my views upon it; from which you will infer that I do not think proper to record a label under that Act.

My opinion is, that the 'map, chart, musical composition, print, cut, or engraving,' must have a value as such, and be intended for sale as such; that, whichever it may be, print, cut, or engraving, it must have a title applicable to itself, which title is to be recorded.

I am also of the opinion, that the Act of Congress was designed to promote the acquisition and diffusion of knowledge, and to encourage the production and publication of works of art, the general purpose being to advance the people in civilization and refinement.

I think, furthermore, that, by the act to which I have referred, Congress did not intend to prevent the imitations of the stamps and labels of any manufactured article, or goods, or merchandise. That is a subject of such extensive interest and importance, that, if it had been the intention of Congress, to embrace it in the provisions of the law, that intention would have been distinctly and unequivocally manifested. It is not likely, however, that such a provision by Congress will ever be found so much out of place, as it would be in 'An Act to amend the several Acts respecting copyrights.'

Furthermore, I am quite certain that Congress did not intend that this Act should be so prostituted, as to be made instrumental in deluding the ignorant and inconsiderate, into the purchase and use of the various nostrums, catholicons and panaceas, which are so much worse than useless to the community.
It is the practice, I am informed, in many of the Judicial Districts, to make records of such labels as are above mentioned, and I suppose it is done to avoid the trouble and ill-will engendered by a refusal. It is entirely clear, however, that such a practice is not in accordance with the intention and design of the Act of Congress above mentioned; and I have no doubt that if the mischiefs of the practice were realized, it would be discontinued.

The course of proceeding above mentioned is that by which almost the whole number of the miscalled "patent medicines" are brought forth. It would seem to be unnecessary to state, that there is no force or validity whatever in this proceeding, for such pretended purpose.

There are means provided in the Patent Laws, for securing to any individual the exclusive right to "any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement on any art, machine, manufacture, or composition of matter," which he may invent; and the necessary requirements in order to accomplish the purposes are clearly and definitively prescribed, as follows:—"But before any inventor shall receive a patent for any such new invention or discovery, he shall deliver a written description of his invention or discovery, and of the manner and process of making, constructing, using, and compounding the same, in such full, clear, and exact terms, avoiding unnecessary prolixity, as to enable a person skilled in the art or science to which it pertains, or with which it is most nearly connected, to make, construct, and use the same."

The Act also provides that the inventor shall accompany his application "with specimens of ingredients, and of the composition of matter, sufficient in quantity for the purpose of experiment, where the invention or discovery is of a composition of matter." The Act also provides, that the applicant shall make oath, that he does not know or believe that the composition of matter was ever before known or used. These and the other requirements of the law being complied with, provision is made for a critical examination into the merits and character of the alleged invention; and, "if the commissioners shall deem it to be sufficiently useful and important, it shall be his duty to issue a patent therefor." This, it will be perceived, is a very different course of procedure from that of filing a label in the clerk's office; and a label, not even indicative of the character of the compound it is to cover. The law it will be perceived, provides for a truthful statement of the ingredients and proportions of every patented compound. The purpose and effect of the provision are two-fold. In the first place, the means are afforded for an intelligent and careful examination into the compound, in order to determine whether it is worthy of the countenance of the government; and, secondly, after the termination of the duration of the privileges, secured by the letters-patent, the necessary knowledge is at hand, to make the invention directly available to the public, by furnishing to all, a knowledge of its ingredients and mode of preparation. Moreover the "letters-patent" themselves, in accordance with their true purport, contain a plain statement of these particulars. There is something open in these requirements, and in the whole course of proceeding marked out in relation to patents, and the fact is, just as one would suppose, that there are really very few "patent medicines." The medicines sold as such, are, nearly all of them utterly destitute of any real basis for the pretense under which they are imposed upon the public.

If the practice of recording labels of medicines should be discontinued,
in the clerk's offices, one important step will be taken towards clearing away the delusion which prevails upon the subject. And if your profession, with that true regard for the general public good which characterizes its worthy members, will take the subject in hand, I have no doubt that you can obtain the enactment of penalties against the sale of any medicines under the pre-
tense that they are, when, in truth, they are not, patent medicines. There has been legislation to prevent the adulteration of medicines; but, it seems to me, that it is a more important end to shield the people against the miserable mixtures, which, as things are now managed, are, by the appa-
rent encouragement of the government imposed upon them. I regret, Dear Sir, that this letter has necessarily been so hasty; I do not mean, however, to intimate that its positions are not deliberately taken.
Very respectfully, your obedient servant,

Dr. Frank II. Hamilton.

Aurelian Conkling.

CIRCULAR.

Department of State,  
Washington, April 11, 1856.

Mr. ———, Clerk of the District Court of the United States:

Sir—The Act of Congress approved February 3, 1831, entitled "An Act to amend the several Acts respecting copyrights," is "An Act for the ENCOURAGEMENT OF LEARNING, by securing the copies of maps, charts, and books, etc., to the authors and proprietors of such copies;" and, inasmuch as mere LABELS are not comprehended within the meaning of said Act, you will, for the future, refuse, in all cases, to record or issue a certificate for the same under said Act.

I am, Sir, very respectfully, your obedient servant,

W. L. Marcy.

The Influence of Occupation on Mortality.—The attempts hitherto made to determine the influence of professions on health are greatly reduced in value, in consequence of the inadequate data on which they are based. If Ramazzini and Thackrah could have known the facts of the last Census, the observations resulting from their scientific and benevolent labors would have had the authority of natural law. That Census sheds the light of statistical truth on the relation of professions and occupations to mortality, and brings out truths which no less extensive investigation would enable the most sagacious observer to anticipate.

It will be an incalculable advantage to obtain, by means of the next Census, a scientific deduction as to the effect of each kind of occupation on mortality. As the initial step has been taken, we may expect it will be followed by others, in a path which, if beset with difficulties, cannot be trav-
ersed without leading to the most important and beneficial discoveries.

The last Census Report gave the number of persons in each occupation in 1851, and the Fourteenth Annual Report of the Registrar-General shows the numbers in those occupations dying at corresponding ages. In this early attempt to arrive at the ratio of occupation to the rate of mortality, it has been found that a difficulty arises from the want of definition of the various occupations, sufficiently clear and determined—a difficulty which can be overcome by giving more detail to future Census operations. It is, for example, found impossible to distinguish the rate of mortality among the different classes engaged in the manufacture of silk, of cotton, of linen,
and of woolen, as great numbers of them are grouped together under the designation of "Weavers." "Miners," whether in lead, iron, copper, or coal mines, fall under one general designation; and "Laborers," in the field, or railways, in quarries, and on the roads, are not distinguished from each other in the registers.

Still, there are certain occupations sufficiently defined to obviate all danger of their being confounded, and whose rate of mortality can now be recorded with certainty. We give these classes at the decennial period, ranging from 45 to 55,* and as arranged in a Table (XVIII.) which shows the advancing rate of mortality in twelve occupations.

1. *Farmers.*—Of the twelve classes under consideration, Farmers are the longest lives, their rate of mortality being not quite 12 in 1000 (11·99). The number of English farmers of all ages in 1851, including 2429 graziers, was 225,747, of whom there were 53,608 between the age of 45 and 55. In that year, the total number of deaths among farmers of all ages was 6426, very much below the numbers which would have been registered had these individuals been engaged in other pursuits. These facts prove that the pure air, the daily exercise, the substantial fare, and the other aids to health enjoyed by this substantial class, considerably modify the influence of unfavorable weather, bad seasons, open ports, peculiar burdens on hand, and all the other ruinous things which farmers' friends have been accustomed to depict in such gloomy colors.

2. *Shoemakers* hold the next place to farmers, their rate of mortality between 45 and 55 being 15·03 in 1000. They are followed by—

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Rate of Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Weavers</td>
<td>15·37 in 1000.</td>
</tr>
<tr>
<td>4. Grocers</td>
<td>15·79 &quot;</td>
</tr>
<tr>
<td>5. Blacksmiths</td>
<td>16·51 &quot;</td>
</tr>
<tr>
<td>6. Carpenters</td>
<td>16·67 &quot;</td>
</tr>
<tr>
<td>7. Tailors</td>
<td>16·74 &quot;</td>
</tr>
<tr>
<td>8. Laborers</td>
<td>17·30 &quot;</td>
</tr>
</tbody>
</table>

As will be seen on inspection, there is among these seven occupations a gradual increase in the rate of mortality, which, considering their great diversity, is quite remarkable. The near approach of these occupations to each other in the scale of mortality, arises from the circumstance that they have peculiar dangers which tend to counterbalance each other. Thus it is to be noticed, that "the tailor is not exposed to the explosions which are fatal to the miner, and the laborer has exercise which is denied to the tailor."

Ascending this scale of danger we pass to—

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Rate of Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Miners</td>
<td>20·15 in 1000.</td>
</tr>
<tr>
<td>10. Bakers</td>
<td>21·21 &quot;</td>
</tr>
<tr>
<td>11. Butchers</td>
<td>23·10 &quot;</td>
</tr>
<tr>
<td>12. Innkeepers</td>
<td>28·34 &quot;</td>
</tr>
</tbody>
</table>

A great disparity is observable in passing from laborers into the class of miners, telling a tale of dangers, many of which result from criminal neglect. Between laborers and the last four classes in this table there is a most remarkable hiatus. In the classes previously noticed, the difference in no case is more than one in a thousand, and in some instances less. Here the difference begins with three, and mounts up to nine, in a thousand.

---

* The decade from 45 to 55 is the only age to which the Census Returns have been applied in the Fourteenth Annual Report of the Registrar-General. We shall have still more important results when these returns are applied to earlier ages.
The returns show that the highest rates of mortality are found among the butchers (23.10 in 1000), and the class of Innkeepers and licensed victuallers (28.34 in 1000.)

The extraordinary mortality of butchers is a fact for which we are indebted wholly to the last Census. The "red-injected face" of the butcher, has produced a wrong idea as to the healthy nature of his occupation. This idea is now corrected by scientific induction, and proper sanitary means will overcome the evil thus brought to light. To quote the significant remarks in the report conveying this fact, here is an important problem for solution: "On what does the great mortality of the butcher depend? On his diet, into which too much animal food, and too little fruit and vegetables enter? on his drinking to excess? on his exposure to heat and cold? or, which is probably the most powerful cause, on the elements of decaying matter by which he is surrounded in his slaughter-house and its vicinity?"

If the rate of mortality among innkeepers, licensed victuallers, and beer-shop keepers should be seized with avidity by the advocates of teetotalism, they must not be forbidden its use; at the same time they must be reminded, that "many highly respectable men of this class lead regular lives, and are of steady habits; but others, exposed by their business to unusual temptations, live intemperately and enjoy less quiet at night than the rest of the community. They are exposed also to zymotic diseases, by intercourse with large numbers of people."

Starling and painful as are these disclosures, they cannot be too widely published. They have a practical value among those who deal with the average of life, for commercial or benevolent purposes; while, to those more specially concerned, they show the necessity, for their own safety, of employing the measures by which unnecessary disease and premature death may be obviated. — [Med. Times and Gazette.

Prize Essay on Cholera Infantum.—The successful essayist for the prize of $100, offered by the New York Academy of Medicine, for the best paper on Cholera Infantum, was James Stewart, M.D., of this city, author of the popular work on the Diseases of Children. Dr. Stewart, in acknowledging the award, generously directed that the sum be paid to the Treasurer of the Children's Nursery. — [N. Y. Jour. of Med.

Caesarean Section.—Dr. D. F. Owen reports (Charleston Medical Journal, March, 1856) a case in which the Caesarean section was performed by Dr. W. H. Merinar, of Miss., for the third time on the same individual. A living male child was extracted. The mother died on the fifth day after the operation. — [Ibid.

Manuscript of the Elder Pliny.—Dr. F. Mohl, Professor at the University of Heidelberg, is stated to have discovered in the Monastery of St. Paul, in Corinth, a manuscript of the elder Pliny, containing nearly the whole of the seventh part of the Natural History, lib. 11 to 14. — [Charleston Med. Journal.