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ARTICLE XVII.

An Essay on the Adaptation of Climate to the Consumptive, for a permanent residence; embracing an Examination of the climate of certain localities of frequent resort; and also, an Investigation of the degree of adaptedness of the Pacific Climates of the United States. Presented to the Medical Society of the State of Georgia, at its annual meeting, held at Atlanta, April 13th, 1859. By WILLIAM HENRY DOUGHTY, M. D., of Augusta, Ga. (Ordered to be printed.)

(Continued from July No. page 471.)

Having thus elaborately presented the meteorological history of this part of our western possessions, we pass from their consideration in detail, to an examination of their applicability, or rather their adaptedness to the consumptive. And in the first place, we will take up the interior. The peculiarities of climate which distinguish this section, might *à priori* have been readily appreciated without a resort to their elaborate exposure by means of its meteorological record, for its inland situation of high altitude, and its own peculiar structural arrangement and conformation, together with its sustentative relationship to neighboring regions, equally peculiar and impressive in their topography, are so familiarly known, and their influence upon climate so accurately and sensibly appreciated, as to point at

once to a state of unadaptedness to the requirements of the tubercular. We remark therefore, that we have associated its notation along with that of California, solely for the purpose of comparison, and not with the view or hope of establishing there a sanitarium for the consumptive; hoping thereby to present the climatic features of this Pacific State in such a connexion, as to insure its correct appreciation. We might have selected other regions, perhaps more eligible, as agents for comparison, but chose to adopt this as showing the entire Pacific climate as a unit, and also that we might inductively recognize the reactions of the climate of the coast, upon that of the interior, and vice versâ. We shall therefore dismiss the farther consideration of this portion of the subject, with the following summary of its climatological characteristics. Its altitude secures to it a light and dry atmosphere, but also brings with it great extremes of temperature; in the winter reducing its temperature sometimes below zero, and in summer, having an analogous extreme of heat. It is not improbable, that the daily thermometrical record, may border on similar extremes, for as before mentioned, while at night the severity of the cold may be such as to form ice, yet, at noon, the degree of heat may be such as to liquify some of the softer solids. The monthly mean temperatures range from 26°.18, to near 70°; the mean annual temperature is 46°.92; the possible annual range of the thermometer is 118°; the mean annual quantity of rain is 16.64 inches; winds when observed, were principally from the south and west; about two-thirds of the year is recorded as fair weather; and finally, the occurrence of snow is noted frequently during the cold season.

The climate of California has few parallels, if any, in meteorology. We have just remarked, of those territories interior and contiguous to it, that it is possible to form a correct idea of their climatic conditions, by the study and appreciation of their general topographical conditions, in their obedience to certain general laws; but it would, to say the least, be exceedingly difficult to form any thing like a correct idea of the true climatic features of the State of California, by any such process of generalization. For, if we refer to its mountain features, and study their influence upon the divisions of its climate, we obtain

but an imperfect idea, because that influence undergoes special modification, by the action of special physical agents. On the other hand, if we refer to its coast or sea-shore situation, and endeavor to deduce therefrom its positive climatic conditions, we fail, because the exceptional prevalence of extraordinary currents of the ocean, stamp it with an exceptional coast climate. And again, if we examine it in the light of the probable reactions of the adjacent plateau, we obtain only a partial view, since its own essential peculiarities effectually counterbalance any distinctive impressions from that quarter. The peculiarities which it presents, are the combined result of the action of certain currents of the ocean, upon the particular conformation of the land, and vice versâ; and are not therefore deducible from its general continental arrangements, or any single topographical element, however marked it may be. Hence, in order to understand thoroughly or to form a correct idea of its features of climate, we must ascertain the mode, and the results of the action of these special agents, particularly those results which ensue from the alternate prevalence of the warm and cold masses of water of the Pacific. This feature in the physical geography of the north Pacific, produces a very different action and influence upon the climate of its eastern coast, from that which is exerted by the waters of the Atlantic upon the coast of Europe. For, be it remembered, the waters of the Gulf Stream are always of a certain temperature, which is higher than the ordinary sea-water, being modified but slightly by the ordinary agents, even to its final distribution. Now, having always a particular temperature condition, it can only ameliorate the climate of such places along its course and subject to its influence, as would otherwise be marked with excesses of cold, and rendered perhaps uninhabitable. While to such as already possessed a high temperature, it would only serve to increase their thermometrical condition by the addition of new increments of heat. Here however, instead of the prevalence of currents of the sea, at or about a given temperature all the year round, we find an alternate, but no less specific circulation of cold masses of water in the summer, and of certain warm ones in the winter. These, we feel authorized to say from writers upon the physical geography of the sea, are not one and the

same current, assuming a higher or lower degree of temperature at particular seasons, but are distinct currents, having this special mode of circulation. Why the warm currents prevail in the cold season, and the cold ones in the warm, or the particular source of the two currents, or the cause of the alternation, is not yet determined, we believe.* Nevertheless, the fact is incontrovertible, that the absolute sea-temperatures in the winter season are warmer than those of the land; and the temperatures of the same in the summer, are colder, than those of the land, and the winter currents. Concerning the attempted analogy of effect, between these currents and the Gulf Stream, it is at once apparent, that no analogy can exist, since the effect upon climate along the Pacific, is altogether determined by the special prevailing current, whether warm or cold.

Again; at certain seasons the influence of these currents upon the climate of this State, is materially increased by its own topographical features. For instance, the conjoined valleys of the interior, forming one of great extent, with their definite and abrupt separation from the coast, by the coast mountains, and from the far interior by the Sierra Nevada, are so completely insulated, that they experience a condition of climate peculiarly their own. During the summer, therefore, when the rays of a vertical sun are poured into them, they attain a degree of heat and rarefaction of atmosphere, which greatly intensifies the natural inflowing of the sea-atmosphere. The observation of the disparities between the interior valleys and the immediate coast, has led to a division of its climate into that of the coast and the interior. Adopting this division, we have next to enquire into their adaptedness, as places of residence for the consumptive. Concerning the interior, we remark that no condition of atmosphere pertains thereto, which could constitute it a place of resort for the consumptive. For during the winter, it is exceedingly damp, and has a foggy, murky atmosphere; during the summer, an excessively heated and dry atmosphere. In consequence of its depth, extent, and particular relationship to bordering mountains, a somewhat confined, and perhaps deteriorated atmosphere also characterizes it, because the free

* Perhaps at the conclusion of this essay, we may furnish our own reflections upon these various points.

access of circulating currents of air from other and purer regions is prohibited.

Coast.—If, as was formerly supposed, uniformity of temperature be the controlling consideration in the search for a climate adapted to the consumptive, we think no one can gainsay the fact, that the thermometrical conditions revealed during the consideration of the climate of the coast of California, establish beyond cavil, the existence of a uniformly high temperature. Extreme degrees of cold are prevented from being reached in the winter season, by the circulation of warm waters off the coast, which, by elevating the temperature of their own atmosphere, act as regulators or modifiers of the land temperatures—particularly under the prevalence of the south-west and west winds, which are shown to prevail along this coast at this time:* the degree of that modification, being in proportion to the intensity of action of the several physical agents. At the extreme southern boundary of this coast, where these agents exert a limited influence, we observe greater variability, than higher up, where they are more active. On the other hand, summer excesses are prevented by the circulation of cold masses of water off the coast, which, by reducing the temperature of their own atmosphere, and the subsequent wafting of the latter towards the heated interior, lowers the temperature of the coast, to a moderate stand, and preserves it at a uniform degree, until in their turn, they are supplanted by the winter currents. So marked is the effect, in the regulation of the temperature, that even the spring and autumn, characterized throughout the great Atlantic plain by changeableness and variability, are rendered gradual and uniform in the rates of advance and decline of their individual months, show a high mean temperature, and exhibit in the monthly ranges of the thermometer, far less fluctuation, than is found in many situations more highly thought of. But, as has before been stated, we are not to consider the influence of any particular condition of the atmosphere or climate abstractedly, but their several conditions connectedly and in association with each other. For notwithstanding its thermometrical conditions are so favorable, being embraced within narrow

* The north-west wind would also contribute more or less to this effect. It will be remembered, that this wind is often observed at San Francisco.

limits, yet if associated with too great relative humidity, the effect produced upon the human system, may be totally different from that which would at first appear. We must, therefore, enquire into the probable degree of its humidity, and after that, notice the effects of its association with this particular temperature condition.

We cannot avoid the recognition of the common fact, that the coast is generally more humid than the interior, more particularly where the general atmospherical circulation is towards the land. At first blush therefore, we should expect to find the coast under consideration very moist, but as we have despaired of finding a suitable climate in the interior of countries, where less dampness exists, we are compelled to select such coast climates as are comparatively less damp, than the general rule would signify. Under this view, we hope, from the modification which the general climatic laws undergo here, by the intervention of so many physical agents, to show that no violation of our theoretical climatology of consumption, would be committed, by suggesting some places along this coast. Certainly if the various islands of the ocean, and the State of Florida, whose ample resources for the generation of moisture are co-equal with their geographical extent, can receive éclat and praise at the hands of the profession, we may claim some degree of regard for this part of the Pacific coast, whose facilities are far less, and whose mean temperatures are more uniform throughout all seasons. It can derive moisture only from two sources, namely, the fall of rain, and its transfer from the ocean; the degree of which in the former case, is dependent upon the amount of precipitation, and the retentive power of the soil. The latter, however, constitutes the principal source, for the general structure does not admit of a retention, but favors, we believe, an easy disappearance, and besides, the amount of precipitation is comparatively small. The actual amount, or rather degree of moisture transferred from the ocean, it is impossible to state, since it can only be approximatively determined even by actual measurement with the hygrometer. Measurements of this character have not been given in the meteorological reports heretofore made, the various officers engaged in taking the observations, not having been furnished with suitable instruments

until recently. As a consequence of this fact, the best efforts at forming or establishing a practical climatology, for the consumptive, as well as for all others demanding attention to this point, must be more or less problematical, if not defective. It is at present, however, a pleasing gratification for us to know, that at least so far as the climate of our own country is concerned, this feature in its meteorology, will no longer be neglected or withheld, since both the medical staff of the army, and the Smithsonian Institute, that great patron of science, have adopted such measures as will surely result in its full accomplishment. That the atmosphere along the Pacific coast is moist, will not be denied, but that it is injuriously so, may very reasonably be questioned, for there are some circumstances which militate against such a supposition. Just here, the testimony of Mr. Blodget may be usefully employed; while pointing out some of the differences btween this entire coast and the west of Europe, he uses the following language.* "This coast atmosphere, though of low temperature, does not appear to be as humid as that of England and France, notwithstanding the large quantity of sensible moisture, fog or mist, on the sea-winds at San Francisco. Below or south of the Columbia River, it is mainly *dry and bracing at all seasons*, or the general climatological effect is such, in contrast to that of Sitka, where the saturation is excessive and the quantity of rain like that of Burgen, in Norway. The low temperature southward, is a single and distinct condition, as it appears; and if it were removed, the whole coast would much more nearly correspond with that of Europe, where, as along the west of Spain and of Portugal, *the prevailing features* for this season *are dryness and serenity.*" "The coast south of Vancouver, is iron-bound, in technical phrase, with a few indentations or deviations from a right line to add to its amount of exposed surface. For these reasons the *sea influences* are of *less importance*, or *penetrate less than they otherwise would*, and these points of identity with other districts, remain but little known."

Again; as perhaps might be expected, a more sensibly humid atmosphere is found in the summer season, such at least, seems to be the conviction of writers upon the subject. "The most remarkable phenomena of weather there, are the summer

* See Blodget's Climatology of the United States, page 195.

coast wind and its attendant mist. This seems to be due solely to the proximity of districts of great heat and sudden rarefaction on the land, to the cold mass of waters off this coast, and to its refrigerated surface atmosphere." "The attendant mist is peculiar, and it is evidently a condensation produced *by contact of the cold air alone, and not by natural condensation in the volume coming from the sea.* The air out at sea is usually clear, and the mist only forms a narrow rolling line along the place of contact of the volumes differing so widely in temperature. Any cold jet of air intruded into a mass having a high temperature, will produce a similar condensation."

Finally, at this point, Mr. Blodget quotes from Dr. Gibbons, a part of which quotation, we here transcribe, as illustrative of the real amount of humidity during the day. "The sun shines forth," says he, "with genial warmth, the mercury rising generally from 50° at sunrise, to 60° or 65° at noon, but when the sun has reached the zenith the wind rapidly increases, coming down in gusts from the hills which separate the city from the ocean, and often bringing with it clouds of mist. But the **dampness is never sufficient to prevent the elevation of clouds of sand and dust* which past through our streets in the most lively manner."

But again; even admitting for the sake of argument, a state of great humidity, the degree of influence exerted by it upon the well and the sick, must be greatly modified, because of the peculiar temperature with which it is associated, and also the degree of circulation of the atmosphere. At most places, such a temperature is observed as adds to and materially aids in the injurious effects of humidity of atmosphere upon the system, either by enfeebling the nervous energies, or by over-stimulation of them; but here, it is so mild, moderate and uniform, that it rather retards and opposes a hurtful influence from the dampness. It is neither a hot nor a cold climate, but occupies a medium position between them, so that it serves to excite to the requisite extent, all the vital functions of the body, thereby exalting the same to such a state, as would enable it to resist successfully, perhaps, the otherwise bad effect of associated moisture. The degree of circulation of the atmosphere, also tends

* The italics are our own.

to limit the effect of a condition of great humidity, for it prevents the complete saturation of the strata of air in the immediate vicinity of the body. Along this coast, the force of the winds is sometimes considerable, and is at all times sufficient to prevent even an approximation to that state to which we have just alluded. Taking the most unfavorable view of the various associated states, we remark, that their effect must be markedly different and far less injurious, than those places which we have examined as the favorite resorts, with their excesses of heat and cold respectively, and their superadded humidity.

The moderately stimulated vital secretions would be neither too abundant nor too scanty; neither too rapidly dissipated nor too greatly retarded; the exhalation of carbonic acid unimpeded; the respiratory acts without disturbance, while the activity of the muscular and nervous structures would be maintained at a desirable point. Finally, the practical influence of the Pacific climate upon the animal system, is well delineated by the author, from whom we have so often quoted. "The elastic atmosphere and bracing effect of the Pacific climates, constitute a striking difference from those of the Eastern States. Whether due to the *absence of humidity* alone is not clear, but to *whatever cause* it is a *notable practical feature.* The interior valleys where the heat is excessive, are similar to the *cold coast also*, and there *is no climate which is not the reverse of enervating*, in its whole extent. It has generally been held that this distinction has its origin in the quantity of atmospheric moisture attending the heat, and this is probably true for the most part, and particularly so of the eastern United States. If, as before stated, the moisture of the sea-air on the Pacific is relative rather than positive, or is developed by the contact of great extremes of temperature, the whole may be taken as more dry than it would at first appear to be, and its uniformly bracing character will not be difficult to account for. *As it is, all residents concur in pronouncing it more favorable to physical and mental activity, than any they have known, from whatever quarter they come.*"* "There has yet been no competent observer on the spot, who has taken up this point and has analysed the singularly invigorating elements that prevail along so great a range of habitable coast.

* Blodget's Climatology of the United States, pages 200 and 201.

Nothing is clearer than that they are present in unusual measure, and *perhaps they are due to the low summer temperature, concurring with a minimum of moisture, and with the peculiar state of this minimum quantity.*"*

Since we commenced investigating the climate of the Pacific slope, we have seen the following statements in reference to it, in the American Journal of the Medical Sciences, made by Dr. Henry Gibbons, in his annual address before the San Francisco Medical Society. "A few years ago," he remarks, "it was supposed that the climate of California was almost proof against pulmonary disease. In 1850, if an individual happened to cough in church, all eyes were turned on him with curiosity and amazement. The native population, it was said, were entirely exempt from disorders of the lungs. But time has dispelled the delusion. Pulmonary consumption and the kindred affections have become the great enemy of human life, as in the Atlantic States. Our entire climate everywhere is less injurious, it is true, to pectoral disorders than the corresponding latitudes in the Atlantic. But, the cold and searching winds of the summer on the seaboard, while they often build up the strength by their bracing and tonic powers, are in general unfavorable to patients suffering from the class of maladies under consideration; and the extreme heat of the interior is equally noxious, from its debilitating influence. The relation of our climate to this class of diseases may be summed up in a few words. Persons afflicted with bronchial or pulmonary disorders, in the incipient stage, are almost invariably benefitted, and oft-times cured by traversing a tropical climate, and taking up their abode in California. On the other hand, such diseases are developed ab initio in this country, about in the same degree as in the Atlantic States. As the female population increases, the bills of mortality exhibit a corresponding increase in the number of victims." "Some years ago, it was a general practice to send pulmonary cases to the Sandwich Islands. But experience has shown its futility. We stand in need of some other sanita-

* We have not hesitated freely to extract from this author, because the superior advantages which he must have enjoyed in the examination of the meteorological records of the various departments at Washington city, entitle his opinions to the greatest respect and authority.

rium. In many cases, change of climate is the only remedy; and a genial climate, not liable to sudden or material fluctuations, and exempt from strong winds, are requisite conditions. In the summer season, the region bordering on the Bay, at its northern and southern extremities, may serve the purpose, holding as it does, a medium place between the damp and chilly ocean climate of San Francisco, and the arid and scorching heat of the interior. In the winter we must turn our attention to the south. Los Angelos and San Diego, in the southern section of the State, are still too far north. The table-land of Mexico will probably supply the disideratum. But even in Mexico, proximity to the ocean must be avoided. Twelve months ago, in a brief stay at Manzanella, which is on the western coast, in latitude 19°, I observed among the native population, an extraordinary prevalence of pulmonary diseases, caused, in all probability, by their sleeping on the damp ground, exposed, more or less, to the cool night wind. Sixty or seventy miles inland, in the vicinity of Cotima, is a different climate, said to be much more salubrious. With all the knowledge I now possess upon the subject, this spot appears preferable to any other, and accordingly I have lately recommended it to my patients, instead of the Sandwich Islands. This subject, however, deserves much more consideration, than it has yet received."

It is not a little singular, that, at the very moment almost, at which we are endeavoring to bring to the more favorable notice of the profession, the climate of this State as a sanitarium for those afflicted with pulmonary consumption, and that too by an elaborate exposure of its entire meteorology, as handed to us by direct instrumental observation, we observe the same enquiry engaging the minds of the profession there also, and their convictions leading them to search still farther southward and westward. We cannot, however, say that we feel in the least intimidated, or deem our positions any the less tenable, for "facts are stubborn things," and figures cannot mislead. And as those facts were obtained by observations at the place of dispute, by persons fully competent to the task, and have since undergone generalization by others equally competent, by whom they have been sent forth to be embraced as such, we feel justified in questioning the authenticity and accuracy of all other observa-

tions, that may tend to invalidate them. Whilst therefore, we may be allowed to express our astonishment at the positions assumed by Dr. Gibbons in the face of the meteorological record of the coast, yet we would not be understood as asserting that they are entirely erroneous, for future and a more extended consideration of the subject, may demonstrate some objection not yet brought to light. But, notwithstanding the object of the writer is to fix the impression, that the climate of this State is not beneficial to this class of patients, yet we think that much may be gleaned from the above extracts, which tends to strengthen the suggestion thrown out by us—that of its possession of such meteorological conditions, as are not unadapted to the consumptive. For it seems that the supposition had obtained, that "the climate of California was almost proof against pulmonary disease." Indeed such was its strength, that it amounted to a positive belief or conviction, since the simple act of coughing by an individual during public worship, at once placed him in a conspicuous position, and excited "curiosity and amazement" in the minds of those, with whom he worshipped. Furthermore, even tradition itself, with its mystified records, served to fix deeper this impression, for the native inhabitants were said to have been "entirely exempt from disorders of the lungs." This supposition, doubtless based upon the tradition of the past, and the observations of the earliest emigrants to this country, assumes far more than we dare do, for it will be observed, that the idea advanced by us is, not the capacity of the region to prevent the development of pulmonary disease in general, nor of pulmonary consumption in particular, but its failure to present those elements of climate, which have been elsewhere seen, to favor the supervention of the latter, and which have justly been recognised as effective agents, in the ripening of the cachectic diathesis, by those who have investigated the relations of climate to this disease. So far from regarding this climate as proof against pulmonary lesions in general, we would expect to find bronchitic, catarrhal, and pneumonic affections quite prevalent, for the reason, that the coolness of its nights, with the common exposure of the inhabitants to them, especially in the wet season, would rather predispose to affections of the mucous membranes, from which that of the res-

piratory apparatus and of the air passages generally, would not escape. Even in the summer, especially to those who have removed thither from the Atlantic States, where the divisions of seasons are sensibly different, with their accustomed disregard of exposure to chilling influences at night, these affections might be looked for.

Again; following the remarks of our author, we observe in the sentence immediately following those to which we have alluded, what appears to be an ambiguity, for after speaking of disorders of the lungs in general, he here particularizes "pulmonary consumption and kindred affections," as the great enemy of human life, in this State. Does he mean by "kindred affections," all the other lesions of the respiratory apparatus, or the general list of cachectic, scrofulous diseases? Certainly all of the numerous diseases of the pulmonary tissue or organs, are not kindred to tubercular consumption. Nay more, the existence of these various other lesions does not entail the necessary existence, also of consumption, although where the predisposition to it, is strongly marked, other things being equal, they may, and do sometimes hasten its development.

But this writer, in summing up the relation of this climate to pulmonary diseases, fully justifies a reasonable expectation of benefit to be experienced by a change of air to this region, to those who are in a condition to remove thither. He says, that "persons afflicted with bronchial and pulmonary disorders, in the *incipient stages* are *almost invariably benefitted*, and *oft-times cured* by traversing a tropical climate, and taking up their abode in California." Still he would have you understand, that "such diseases are developed ab inito in this country, about in the same degree as in the Atlantic States." Does not this remark favor the suggestion, which we have made, after a careful examination of the record of its meteorology, that benefit may not unreasonably be expected? For such as he declares to be "almost invariably benefitted," comprise the only class, who could possibly undertake the journey, or could hope to be benefitted by change of climate at all. So far as the effort to counter-balance this, by a reference to the ratio of its primary development among the inhabitants, is concerned, we remark, that there are some circumstances, which, when taken into account, lessen ma-

terially the degree of importance to be attached to the observation, and in fact to all similar and kindred observations, not only up to the present time, but for some years to come. For the very conditions under which this State has become thickly settled in a short time; the causes of the rapid emigration, among which we would specify the inordinate stimulus to commercial enterprise; the general habits of the emigrants; the character of the lives which they lead; the hardships endured by them, and the necessary exposure undergone in the pursuit of their objects; their condition of mind, that of frenzied madness for gold; their utter disregard of the rules of hygiene; the wildness of their speculations; their constant anxiety and endeavor to find other and more enriching fields, as was evidenced in the heedless emigration to Fraser River; their continued state of excitement, as was painfully manifested during the late usurpation and reign of the Vigilance Committees; their immorality and dissipation; and finally the mortification of a defeat of purposes, and the crushing disappointment of large anticipations, have only administered to the production of such diseases, as manifest themselves by derangement of the organic, nutritive processes of the body. It is not astonishing, that a greater proportion of phthisical cases are observed now than formerly, because, during this period of confusion and excitement, the system, with the seeds of the disease in many cases already sown, thus stimulated and taxed to its greatest energies, appeared to contend successfully against these numerous agents; but now, that the public mind is becoming more quieted, and the consequent depression from this former artificial state of stimulation is taking place, the system becomes an easy prey to those influences, which have been working gradually but perseveringly for its destruction, and readily succumbs to those perverted vital processes, the result of former indulgencies. Hence it is, that the delusion spoken of has been dispelled. Hereafter, however, as the mental and moral condition of the inhabitants becomes more quieted and improved, and the sins of the past shall have been atoned for, it will perhaps be found that the climate does not so readily engender those vices of nutrition, as might be inferred from the remarks of Dr. Gibbons. Moreover, our readers cannot fail to perceive, that the numerous predisposing and ex-

citing causes, which we have mentioned above, are of themselves sufficient to develop if not to beget the predisposition to pulmonary consumption, independently of any special unadaptedness of the climate.

Passing next to a review of the second paragraph of our author, we are again startled at the revelations of the character of the climate. "In many cases," says he, "change of climate is the only remedy; and a genial climate, not liable to sudden or material fluctuation, and exempt from strong winds, are requisite conditions." The intimation clearly made here, is to the effect, that this climate is a prey to such unwholesome conditions. Now we had thought, and certainly we are justified in the belief, that the coast of this State, at least, was almost entirely free from "sudden or material fluctuations," in the sense in which those terms are used, as applicable to the eastern United States, and possessed to an eminent degree a genial climate. The Army Meteorological Register, contains observations taken along this coast, and if our understanding of them be correct, they forbid the apprehension of "sudden and material fluctuations" of temperature. Even previous remarks of Dr. Gibbons, are somewhat calculated to sustain this criticism, for he says, that, "so little difference is there in temperature between winter and summer in this wide range of coast, that flannel garments are constantly worn, and no one thinks of changing the dress from winter to summer."

We ought to remark, however, that the Register does not contain the daily fluctuations of the thermometer, inasmuch as the general monthly record is sufficiently minute to enable us to appreciate perhaps correctly, the amount and degree of fluctuation incident to this coast. In our arrangement, we have endeavored to bring to light, almost every feature at all calculated to show the vicissitudes of this climate, having preferred rather to use the negatively proved fact of its mildness and uniformity, than to follow the usual course of writers, by commenting upon the positive signs: for under the circumstances, strong negative evidence amounts to positive proof.

Again; this gentleman, while he thinks that a place of residence may be found here for the summer season, totally disregards the idea of a winter residence; for places "in the south-

ern section of the State, are still too far north." To this, let the limited range of the thermometer; the regulated temperature of the succeeding months; the general range of the mean temperatures; the mean of the monthly maxima and minima; the high monthly mean temperatures; inshort, the great moderation of temperature observed in every respect, reply. Surely as represented by these various conditions, the climate is incomparable to most other regions, much farther southward. These features of uniformity, high measure of temperature, and freedom from extreme fluctuations, are unmistakeably shown, as true of that part of the coast about San Francisco and Monterey. Finally, this writer, after attempting to show that this region will not do as a place of resort for the consumptive, concludes after a limited search farther southward, that probably the table land of Mexico will be found to "supply the desideratum." For ourselves, we cannot see in the climate of this region, any circumstances, which would lead us to look here for a sanitarium, for notwithstanding it has been styled "a temperate region in the torrid zone," yet its general climatic features are too stern for persons of weak habits. Viewing the entire republic of Mexico, we are free to assert that we are unable to divine a suitable place for the phthisical, in either of its three divisions, the tierra caliente, tierra templada, and tierra frigida. For the first, with its sultry and poisonous atmosphere, the second, with its excessive humidity, and the third, with its sternness and frigidity, are alike unadapted.

Again, we may call to our assistance the writings of Mr. Blodget, which clearly express the ideas, which we have sought to impress throughout this paper.

He says,* that, "the arid climates of the interior, and the cool Pacific coast, have been occupied so recently, and so little observed, that it is difficult to trace the climatological geography of disease there, but enough is known to decide that malarious diseases are comparatively rare, and that their antagonist forms as observed in the eastern United States, or the pulmonary class, are almost unknown *from California* southward."†

"Humidity is an essential element of each, and in its absence,

* Climatology of the United States, page 460.

† The Italics are our own.

"both disappear from all districts when the temperature is high enough to develope malaria." "Over the whole interior and Pacific region, these affections, (respiratory diseases,*) will be little known, and in *southern California, the climate is far superior in this respect, to any part of Italy. Equable in temperature, and, at the same time extremely elastic and dry,* it *cannot generate respiratory diseases.*"

"Of admissions to the city hospital, San Francisco, for nearly two years, August 7th, 1851, to July 1st, 1853, there were 84 in a total of 1.870 belonging to the respiratory class. Of these, but 11 were of consumption,—45 per thousand of all, and 5.8 per thousand of consumption. It is believed that the cases of all diseases of this class originating in California, will not reach 4 per cent, in the number of deaths, and will thus stand at less than one-third of the number in the eastern States." Again; "geographically the diseases of the respiratory organs of which consumption is the chief, have their maximum in New England, in the latitude of Boston, and diminish in all directions from this point." But "the *absolute minimum* for the continent in temperate latitudes, is in *southern California.*"

The winds that blow along the coast of California, are those which are commonly recognised as most conducive to health, and especially to such invalids as are subjects of pulmonary consumption. † "Moist and cold air favors the coming on of tuberculous disease; and hence living on a sea-coast, with an easterly marine exposure, is very injurious. Less inconvenience is felt with a western and southern exposure, which is deemed to be rather sanative, and to offer to the patient the best prospect for restoration to health."

Again; ‡ "south winds are highly ozoniferous and probably on this account, produce catarrhs and bronchitis. They soothe and allay a dry and irritable condition of the mucous surfaces of the air tubes and cells, and greatly alleviate the sufferings, and indefinitely prolong the existence of the phthisical patient." It

* The Parenthetic sentence is our own, as also all of the numerous succeeding italics.

† Bell & Stokes's Practice, page 252.

‡ See American Journal Medical Sciences, vol. lxxviii, page 146. Review of Pickford on "Hygiene or Health, as depending upon the conditions of the atmosphere, etc."

is possible however, that the strength of the winds, which blow along this coast, may be, to some extent, objectionable at certain seasons, but we cannot say, that they are so at all times. Exercise in the pure air, may be freely engaged in, for, as a general rule, the number of fair days exceeds the cloudy and rainy days. Even at San Francisco, where the number of fair and cloudy days are nearly equal, this principle of hygiene is not violated, for the proportion of cloudy is about two and a half times that of the rainy, so that free exercise is not prevented.

Finally, what classes of disease are most prevalent here? "Epidemics are of rare occurrence in this State." Dysentery and diarrhœa formerly "were prevalent, and extremely fatal." But at present, under the improving social condition and habits of the inhabitants, they are fast disappearing. Limited epidemics of cholera were experienced in various localities, in 1850–51, although "Sacramento was nearly depopulated by it." Influenza, croup, scarlatina, and diseases of the urinary organs are also met with, the first of which sometimes manifests itself as an epidemic. "Insanity, as might be expected, is fearfully prevalent in California." "Fevers, to which the dubious term malarious, is conveniently applied are scattered every where, in city and country, and are often endemic in certain districts."

In conclusion, notwithstanding most of the essential conditions of a climate for the consumptive, have been complied with by this State, namely, a relatively high and uniform temperature, limited ranges of the thermometer, freedom from great non-periodic extremes, a moderate dew-point, and abundant facilities for the exercise of the physical man, and also diversions for the mind, yet much more observation is necessary, before it can be adopted as the desired place for such. We stand greatly in need of correct mortuary statistics, not such as are found in the census reports, for they are entirely too loose and indefinite to be reliable. In order to demonstrate the true relationship of the climate to this disease, they must be such as are deduced from the actual number of deaths among the native and resident population, and not from the reports of mortality at army posts, or among the migratory and transient part of the inhabitants. These latter constitute a frightful source of

disease of all kinds, and form the basis for an incorrect apprehension of its climatological geography. They must be excluded especially from any calculation, purporting to exemplify the proportion of phthisical cases. Another source of error is found also among that class of the inhabitants, whether transient or permanent, who, by their disregard of hygiene and exposure to all sorts of debilitating influences, both moral and physical, seem rather of themselves, to force its production in apparent defiance of the climate. That class then, which should and must form the only true basis for an exposition of the relations of climate, to the production of phthisis, becomes reduced to a small portion of the inhabitants. These are alone to be found among those, who give the necessary attention to those imperious prophylactic and hygienic measures, which are universally recognised as necessary to the health of the vigorous, and whose moderation and freedom from excesses of every character, both physical and mental, throw the burden of its production upon the climate. Until these distinctions are observed in the mortuary statistics of this disease, it is plain that they are defective, since they only prove that the climate cannot avert the effect of causes, which are totally independent of it. Such statistics, as have been published, showing the number of deaths from consumption in California, are in the highest degree objectionable, because they embrace all of the defiant and incongruous elements which we have just mentioned. Persons from all classes of society, and from all countries, make up its motley population, and constitute the chief part of those who form the objectionable parts of society.

ARTICLE XVIII.

An Essay on the Nature and Treatment of Cholera Infantum, read before the Medical Society of the State of Georgia, at its last annual meeting, held in Atlanta, April 13th, 1859, by H. W. DeSaussure Ford, M. D., Prosector to the Professor of Surgery, in the Medical College of Georgia. (Ordered to be printed.)

The subject of this Essay, Cholera Infantum,—as originally induced, or rather, commenced during dentition,—was chosen, not as more full of interest, or more novel, than many others,

but as one whose pathology, to the *vulgus*, is somewhat vague and obscure, notwithstanding the labored, and extended views of a host of investigators. If the interpretation of its pathology shall differ *immaterially* from the generally accepted one, still the desire shall be strong, to suggest a different *treatment*, which treatment, from observation of its efficacy, shall recommend to Practitioners, the adoption of a pathology lately disclosed, and also be urged as an argument to disparage, not only the usual treament, but the generally accepted pathology also.

Infancy is the most critical, most susceptive, period of existence; all the organs are in a state of unceasing development and growth, each dependent on one another, different parts sympathizing, extensively. If such mutual communion and interchange exists, then how certainly must the suffering of one particular organ, or even local disease, extend itself, insinuatingly, through the whole economy. If this developing, growing organism is attacked by morbific causes, the effects escaping the vigilance of attendants, how disastrous, when we think, that "disease not merely disturbs the present, but its influence reaches to the future; it not only interrupts the present function of the organ affected, but puts a stop, for a time, to the completion of the general machinery of the body, or disarranges the due proportion of one part of that machinery to another."

The particular period, most critical with these little ones, is dentition, which comprehends the great, and important changes, which take place in their organisms. The mere mention of the disease horrifies mothers, who imagine it very painful, rapid, and always fatal, when not necessarily is it either; the infant may be subjected to most profuse discharges—a striking characteristic of the disease at its onset—lingering for many days, without succumbing; but certainly, from this draining off of the fluids, each day the tone of the system is impaired, each moment crying out for prompt and energetic treatment. The ignorant think infancy is a period peculiarly prone to frequency of discharges from the bowels, without any immediate impairment of health, and hence physicians are often ushered upon cases, especially among the poor, which discover to him extreme debility and deplorable emaciation. While they have to contend against these indiscretions in the parents delay, they are yet ex-

pected to check these excessive flows from the alimentary canal, as well as, oftimes, uncontrollable micturition, and are often persuaded, by the anxious solicitude of these parents, to administer opiates immediately.

During the past summer, I treated eight children, who had Cholera Infantum, all of them teething, and notwithstanding the swollen gums were scarrified successfully down to the offending tooth, the symptoms continued, five of them arriving at a state of almost exhaustion. Here, then, are eight cases which I followed up, the treatment having been at first, on the old plan, because they were intended to afford a subject for thought, and experiment. Induced to counsel with a friend of more experience, early in the season, on this subject, he suggested a treatment which was adopted, it seeming to answer the demands of an adopted pathology. In passing, it may be stated, the treatment was successful except in one case, that case, seen the first time, showed indications that the little one, was "*in articulo mortis.*"

Discussing the etiology of the disease, Dr. Eberle quoting the the following from Dr. Condie: "a majority of the children fall victims to Cholera Infantum, in the neighborhood of marshes, or in low, wet, or otherwise unhealthy situations," says: "this, I apprehend, will not be confirmed by the observation of those who practice in the neighborhood of paludial districts." As if searching for a contrast, that gentleman commences his next sentence thus: "*Unquestionably*, Cholera is much more common, both in infants, and adults, in such localities, than in high and salubrious parts of the country, and there can be no doubt that miasmata have a considerable tendency to favor the occurrence of cholera, whether in adults, or in infancy." While the object of this essay, is intended to dwell, more especially upon the diarrhœa, and other excretions in Cholera Infantum, it may be interesting to state, directly in this connection, that five of the aforesaid cases, were surrounded by intermittents, their own homes situated upon, or near, the banks of a canal, such localities noted for being asylums for paroxismal fevers. There was certainly in each case, an unequivocal paroxismal feature, leading me to believe, though originally induced by the irritation of a tooth, yet the disease was signally aggravated

by this very malarious influence. Mr. Eberle continues to argue; "if, however, Koino-miasmata be the principal agent concerned in the production of this malady, why is the disease so exclusively confined to a particular period of infancy in our cities? and why does it commence so early as the latter part of June, and usually acquire the most extensive sway in July?" Now few have advanced the opinion, that the disease is *principally* induced by miasmata, yet acknowledging the period of *dentition*, the one most prone to its ravages, nor has it been established that the disease attacks so *universally*, in the *early* summer months, as Eberle would suggest; for, most of our cases occurred in the latter part of July, continuing into August, our hottest and most sultry months; months true, whose atmosphere is charged heavily with this mysterious miasm.

While confessing that miasm does exert an influence over the disease, I would be doing my established opinions injustice, to think, with some, it was the sole cause of the affection, especially since the *period* of existence, has been so certainly marked as above, and before all others, the one for its development. It is by no means unusual, to see this febrile excitement continue, after we are confident the irritation, at the gums, has subsided, which, doubtless, is the first cause of the symptomatic fever, as well as the excretion from the bowels, and this excitement continuing, too, in a paroxysmal form, as before suggested.

At one time, the disease was thought peculiar to this country; but it is developed in all climes, from the most salubrious to the most foul, and pestilential; notwithstanding, however, this apparent impartiality, it is most prominent and fatal, where there is high atmospheric heat, with vitiated condition of the atmosphere, as instanced by its prevalence in our large cities. "At that period of life, to wit: primary dentition, to which the disease is almost exclusively confined," says Gholson, "the physiological development of the digestive organs, in order to prepare for the change of the food in the organism, which the now rapidly developing process of dentition admonishes to be near at hand, is so rapid as to amount almost, to a pathological condition." "This rapid nutrition and growth, seem to be directed, especially, to the glandular or follicular apparatus; the morbidly excitable condition of these follicles, and, indeed, the diges-

tive mucous membrane, generally, is so strikingly at this period, that, taking an *à priori* view alone, we should naturally expect choleraic affections to be frequent at this period, and that those causes which are capable of producing them, at other periods of life, would, *a fortiori*, produce them now."

The disease commences with diarrhœa, eventually resulting in violent purging and vomiting—the irritability of the stomach sometimes, with the looseness of the bowels, oftener, at a later period. Thin, watery evacuations, curdled often in their consistence; usually greenish in color; sometimes yellow, or of a mixed color, and in the latter stages, evident traces of blood. Unsatisfying thirst, which aggravates the disease; much heat of surface, except in cases of exceeding prostration; pulse somewhat accelerated, but natural respiration; pain and tenderness of the abdomen, on pressure; great loss of muscular power, with sunken eyes, and progressive emaciation; little or no marked fever, except when it attacks the brain, or some other organ, or complicated with paroxysmal fever. There is very great diversity at different periods, in the color, consistency, and nature of the dejections; thin, watery, and profuse at first, then greenish, then more or less bloody as the disease advances a fatal termination; very frequently profuse micturition. Close watching will satisfy the attendant, that there is a very decided periodicity in these vomitings and purgings. "The onset of the disease, may be sudden and overwhelming. A child will go to bed apparently well. Its mother will be awakened in the night by its cries and vomiting; and when a light is made, will find it drenched in those profuse watery discharges, which have been poured out from its stomach and bowels. These discharges continue irrepressible, and when morning dawns, she can scarce recognize, in the pale and haggard aspect, the shrunken and collapsed features of the dying infant, the rosy-cheeked, bright-eyed babe, she had, ere now, hushed to sleep with so much seeming promise of health."

"In the Southern and Western sections of this country, says Gholson, there is still another type of this disease—that type which results from its being complicated with the prevailing fever of the country in which it occurs." Five of the cases, before mentioned, I think, were such as suffered with such compli-

cation, viz: Intermittent Fever, which was prevailing in their midst.

"The Hepatic pathology was, at one time, applied to this, as indeed to almost every other disease in the southern country. The absence, however, of any constant lesions in the liver, prove very conclusively, that those functional disturbances in this organ, which we frequently observe in this disease, are generally sympathetic of the gastro-intestinal disease, and play a secondary and subordinate part in its morbid phenomena. The only essential pathological element * * * is clearly, and confessedly, the follicular affection, and the only question, at the present day, connected with its pathology, is as to the nature of this follicular disease," which, I think, is a mere disease in the nutrition and secretion of these follicles, for "the irritation may be transmitted from the gums, through the *ganglionic* system of nerves, to the various vascular organs, as the lungs and liver, and secretory surfaces, and the gastric and intestinal mucous membrane—giving rise to congestions in the one case, and excessive secretion, diarrhœa and Cholera Infantum in the other." In the Southern Medical and Surgical Journal for 1850, in an article by Professor Campbell of Augusta, we find the following: "We have now glanced sufficiently, we think, at the Anatomy and Physiology of the Sympathetic System of Nerves, to make application of such points as are pertinent in the solution of our pathological problem. In its anatomy we have seen its connections with all three of the branches of the fifth nerve by ganglia, the connection of these various ganglia with each other, as well as with the cerebro-spinal axis, and lastly, the distribution of branches from these ganglia, which are connected by the arteries into every part of every one of the splanchnic viscera; in its Physiology we find it in entire charge of the important functions of nutrition and secretion, and, that wherever these processes are effected, it is by the agency of this nerve, alone upon the blood vessels." Accepting this view of the intimate and close connection between the fifth pair, sympathetic and cerebro-spinal axis, we can readily understand the rationale of Eberle's treatment—he says: "within the last four years, I have not treated an instance of this complaint—viz: Cholera Infantum; in which I did not at once apply blisters behind the ears, and,

in most instances, with unequivocal advantage." Professor Campbell continues: "we are all aware that nearly the whole of the intestinal canal, or rather, that portion between the stomach and lower part of the colon, receives no direct innervation from the cerebro-spinal axis, but is entirely dependent upon the sympathetic nerve for its supply of nervous influence, of whatever kind it may enjoy, whether motory, sensory, or secretory, and, consequently, an impairment in the function of this nerve, must, necessarily, correspondently alter its condition. The alteration in these functions, would, of course, depend in a great degree, upon the amount of impairment in the source of irritation. Thus, as we have seen, if the supply be entirely cut off, the functions of the arteries seem, in a great measure, to cease—passive congestions occur, and the parts inflame and ulcerate. Now we can also very naturally conceive of a condition of these nerves somewhat analagous to the above, yet intermediate between the entire interruption, caused by section and perfect health—a condition of embarrassed or perhaps, exalted innervation. This intermediate condition is exactly the state which, from the developments of the foregoing investigation, we feel that we are authorized to affirm, is that which recurs as the result of severe dentition, and that upon it is dependent the whole train of intestinal morbid phenomena observable during this process. The irritation at first produces simply an exaltation of the innervation of those secretory surfaces, and, consequently, secretion is more active than normal, producing simple diarrhœa."

I have been led to interpret this disease as one of Atony, the mucous follicles becoming, so to speak, exhausted by the constant excited secretory action, and unable in such weakness and debility, to establish their normal functions, they call for Therapeutic aid. If we then consider it as one of Atony, as well as febrile excitement, even with inflammation—for their is such in these mucous surfaces during the latter stages—and maintain with Gholson, that the Hepatic pathology, though not positively absent, yet occupies a *subordinate* influence, our treatment will be directed accordingly. Without any consultation with Medical works on this point, except to deplore the promiscuous and frequent use of mercury, I hesitate not to recommend a treat-

ment. In this connection, I may say: if this liver which does not *seem* to perform its function from the thin, watery, colourless dejections, and this same organ does not present any anatomical lesions, and it is not the original cause of the disease, what the necessity, or warrant, for dosing the sufferers with the mercurial preparations; certainly it cannot be to cloak ignorance, and certainly its advocates cannot, in this age, think the liver and its secretion of bile, the *governor* of this intricate, wonderful engine, man! Besides—suppose black stools do appear, is there any warrant that such blackness does not depend upon an admixture of blood, which has been excited by this excess of bile washing over these tender mucous tubes?

It was stated in a former connection, that I practiced an approved treatment, viz: Paregoric or Laudanum, and Hydragyrum cum Creta, night and morning, and that the patients were discharged after a day or to, apparently convalescent, this convalesence, however, proved spurious. Being recalled, I discovered the children equally, if not more so, enfeebled by a second, sudden, aggression of the disease. I recommend as a good plan, as far as my individual success is concerned, as well as scientific reasoning, the following treatment: Sulp. Quinine and Sulp. Iron, half grain of the former, and quarter of a grain of the latter, three times daily. Besides a mixture of this kind, I give sometimes, three doses of the Quinine, commencing early in the morning, giving one dose every two hours. The reasons for giving the Quinine are obvious, viz: as being the panacea in all cases of febrile excitement, and as relieving congestions, and inflammations, for, says Dr. Robert Campbell of Augusta, in his published Lectures on Dysentery, "Quinine acts upon the vascular tissue, to give it tone and contractility."

The Sulp. Iron is used as a tonic as well as styptic. Lime-water, Camphor water, and Bicarbonate Soda, were used freely, when there was excessive vomiting; also mush poultices with mustard over the epigastric region.

I may add here, that on January 22d, of this year, I was called to see an infant eighteen months old, who had every symptom of Cholera Infantum. When I saw her, 12 M., she had had persistent vomiting and five dejections, since 8 A. M., represented as profuse, thin, and watery. The child had not all of

her teeth, yet the gums were not tense or swollen. I examined for this, but discovering no apparent irritation at this point, did not, of course, cut the gums *any how*. Prescribed 10 gtts. Paragoric with a little Soda, after every evacuation, until partially under the influence of the opiate. The morning of the 23d., 10 A. M., she was still vomiting—had rested very badly, and had three or four discharges during the night. Unwilling to push the opiates any further, I resorted to my hobby-horse, a mixture of Quinine and Iron, ordering three doses that day. Notwithstanding the infant was weak and very sick, my belief was so strong in the efficacy of the medicine, that she was not seen again until noon of the 24th, which visit rewarded my credulity. In a day or two, the child was discharged, with instructions that remainder of contents of ℥iv. phial should be taken. I omitted to state that brandy, in the form of toddy, is a great adjuvant in the treatment of this disease.

Before closing this, it would be proper, probably, to apologise for not treating my subject more originally, and more at length. I deemed it proper to put in as close compass my views as possible, and these views from my peculiar, and fortunate surroundings, must, necessarily, be derived, in a great measure, from the experiences of others, more freely walking the wards of Hospitals, and hence whatever claims for originality in this essay I might *seem* to merit, they are merely practical experiments, upon a scientific principle.

Cancer. Read before the Rutherford County Medical Society, Nov. 1858. By B. W. Avent, M. D., of Murfreesboro', Tenn.

The following cases of Cancer, which I propose to report to the Society, have occurred under my personal observation. They have been selected from a number of others, as embodying the most prominent characteristics of this disease, so far as my observation has extended in its management.

All the cases, except one, have been treated within the last few years. Notes taken during the progress of each, are relied upon for correctness.

Case I. James Mitchell, aged sixty-five, of strictly temperate habits, originally a large stout man, a farmer by profession, had noticed for many years a small tumor upon the back of the right hand, though not of sufficient importance to produce inconvenience. About three years before I saw the case he received

a scratch upon the surface of the tumor, from the tooth of a dog. Inflammation followed, the tumor suppurated, and in a short time assumed a malignant character. The disease continued to increase, until the whole hand became involved. He is now suffering great pain from it, the hand is almost entirely destroyed, and is the seat of frequent and violent attacks of homorrhage. His general health is bad, he is much emaciated, and has hectic fever and night sweats. Amputation was determined on as offering the only hope of relief.

On the 25th October, 1845, the operation was performed below the elbow. Nothing occurred during or after the operation to embarrass the case. His recovery was unusually rapid. He soon recovered his former health, and was able again to attend to the business of his farm. I saw the old gentleman four months after the operation, when he informed me that he had not felt so well for many years. In less than one year, however, from this time, I was requested to visit Mr. Mitchell, and found a tumor about the size of a turkey's egg, just below, and near the sternal end of the clavicle of the same side. It was quite hard, and had every appearance of maliglancy. I did not see him afterwards, but learned from his physician that the tumor soon softened, communicated with the lungs, and that he died in a short time with pulmonary disease.

In this case there was no appearance of disease in the stump. He died about fifteen months after the removal of the limb.

Case II. On the 8th of April, 1854, I removed the entire right breast of a negro woman, aged thirty-five years, who was the subject of scirrhus cancer, involving about two-thirds of the gland. This patient had enjoyed good health up to the time of the appearance of the tumor in the breast. She was the mother of several children, all of whom were healthy. About three years previous to the operation, the disease first made its appearance. The gland had become quite painful, and had ulcerated at two points. Her general health had not suffered to any great extent, but recently there had been a more rapid decline.

The tumor being very large, the incision for its removal was necessarily a long one. The lips of the wound were brought together, and confined by sutures and adhesive straps. In twenty days the cicatrix was complete. Her health improved rapidly; so great was the improvement, that only a few weeks elapsed until she was able to perform the ordinary house labor of a female servant. I think she was the weaver of the family.

About a year after the operation, this patient presented herself again for treatment. A tumor, the size of a hen's egg, had formed in the axilla of the same side. It was of some two or three months standing, quite painful and hard, except at one point, which evidently showed the presence of fluid. It was opened

with the lancet, and its contents discharged. This proved to be a semi-transparent fluid, containing a small quantity of pus. It was contained in a sac, which separated it from the main body of the tumor. A month afterwards I examined the tumor again, when an operation for its entire removal was determined on. Before the appointed time arrived, however, the tumor had taken on an acute form of inflammation, which had extended from the axilla to the spine. The operation was not attempted. She died two weeks afterwards.

There was no return of disease in the original location. The cicatrix remained sound. This patient survived the operation fourteen months.

Case III. In the month of September, 1855, I was requested to visit a negro boy, in an adjoining county, for the purpose of removing a tumor from the left scrotum. This patient was ten years old, in good health, and well grown for a lad of his age. His parents were healthy. The tumor was hard, unyielding, and quite heavy. It had never been painful, and was only, troublesome from its weight and size. Its first appearance was detected about three years before I saw him. The growth of it had been continuous, though more rapid for the last four or five months.

Assisted by Dr. Donoho of Cainesville, and Dr. Smith, of Murfreesboro', I removed the entire tumor, together with the left testis, which was involved in the general mass. The tumor after its removal, weighed 1lb. 8oz, and proved on examination to be malignant. Recovery was very prompt in this case. The boy seemed to be in the enjoyment of uninterrupted good health for about nine months. The first intimation of a relapse in this case was the discovery of a tumor of considerable size in the cavity of the abdomen, which from its location, was thought to be an enlargement of the spleen. Subsequently, however, it was found to be a distinct growth, situated in the epigastric region. Constitutional symptoms of a grave character soon supervened, attended with dropsical effusion, particularly within the abdomen. To relieve the distension it was thought advisable to perform paracentesis abdominis, which had been done on one or two occasions by Dr. Donoho who had charge of the case. His decline was rapid. He died thirteen months after the removal of the tumor. There was no return of the disease at the point of the operation. The cicatrix was complete, and remained so up to the time of death.

A post-mortem examination was obtained, which revealed the presence of a large diseased mass within the cavity of the abdomen, evidently malignant in its character.

Case IV. In November, 1855, Dr Burke, of this county, requested me to examine with him, a negro woman, whom he had had under treatment for a year or more, for a sore upon her leg.

This patient was forty years old, and the mother of several children. Her health had generally been good until recently. Most of her sufferings she attributed to the condition of the leg, which was probably true. An examination of the case showed, the presence of a fungoid growth, two inches in diameter, situated on the front of the lower third of the tibia. This disease originated from a small tumor discovered five years previously, but which at first was not of sufficient importance to excite much attention. In a year or two it gave evidence of growth, and finally from some imprudence became inflamed, suppurated, and did not afterwards heal. Within the last few months there had been quite an increase of disease in the parts. Various escharotics had been used with a view of removing the fungoid formation, but without success, each slough being followed by a reproduction of a similar character.

I dissected out the entire growth in this case with the knife, extending the incision for some distance beyond where there seemed to be any appearance of disease. The sound skin on each side of the leg was divided, and partially dissected up, so as to afford a covering to the original seat of the sore. The dressings consisted of adhesive straps firmly applied, and the bandage. The healing process progressed finely, until there was almost an entire closing of the wounds made in the operation. At one time she reported herself well. In a month or two though, there was a relapse in the original location, manifestly assuming the same character. All hope of success by the means thus far employed having failed, amputation was determined on as offering the only remaining prospect of relief. The limb was taken off below the knee. A healthy cicatrix of the stump followed. Her general health signally improved, and in a short time she seemed to be free from all disease.

Six months after the removal of the limb, another tumor made its appearance in the groin, which grew with unusual rapidity. The parts soon suppurated. a fungus hematodes was developed, constitutional symptoms followed, and the patient soon became a prey to the disease. She survived the operation twelve months. The stump continued sound.

Case V. February 1st, 1857. Robert Belt consulted me today on account of an enlargement of the left testis, which he says has been approaching its present size for a period of years. The gland has recently become quite painful, and from its weight has been a source of great annoyance. The organ is now about treble the dimentions of the other. It is hard and unyielding, except at one or two points, which show the presence of fluid. The age of the patient is about twenty years. He is small in stature, and has the appearance of general bad health. This condition though he attributes to an attack of intermittent fever from

which he has had a slow recovery. I can discover no symptoms showing the lesion of other organs. The removal of the testis is advised.

Assisted by Drs. Baskette and Smith, a few days after the examination mentioned above, I extirpated the testis. He had a speedy recovery. In three weeks he returned home with the wound healed. His health also improved very perceptibly. An examination of the specimen after its removal, satisfied us that it was malignant in its character.

I did not see the patient after his return home, but through the kindness of Dr. Geo. W. Robinson, who had the subsequent management of the case, I am enabled to give the following facts: "At your request I will give a brief statement of the case of Robert Belt after your operation. After his return home, his health appeared better than usual for about three months. In July I think he consulted me in regard to some pain he felt at times in his abdomen. Upon examination I found within the abdomen two or three large unyielding tumors. also another of considerable size, just above the clavicle of the left side. Rapid emaciation ensued. His bowels were constantly costive, and were moved only when urged by medicine. At times his abdominal pains were acute in the highest degree. The cicatrix remained sound and healthy. His death took place about the first of December."

This patient survived the operation ten months.

That the above cases may be brought more definitely before the Society, I now propose to throw together in statistical shape, the age of each patient, as well as the length of time that each survived the operation

	AGE.	DIED.
Case 1.	60 years.	15 months after the operation.
" 2.	35 "	14 " " " "
" 3.	10 "	13 " " " "
" 4.	40 "	12 " " " "
" 5.	20 "	10 " " " "

Reference to the above figures show that these patients (though few in number,) embrace ages ranging from ten to sixty years. The average age is thirty-three years. The average lenth of life after the operation is thirteen months. The length of time from the date of each operation clearly proves that age did not influence the result. The same fact obtains as regards the selection of the local deposition. It will be remembered that these operations were performed on different parts of the body: 1st, The removal of an arm; 2d, An entire mamary gland; 3d, A tumor involving the testis; 4th, An inferior extremity; 5th, A testis; yet no one of these locations seemed to have exerted any beneficial influence over another in protracting the life of the subject. There is another fact in connection with this part of the subject worthy

of notice, which is the length of life after the operation compared with the duration of the disease in each case, previous to that interference. The duration of the disease previous to the operations seems to have had no controlling influence upon the length of life afterwards. The patient that had been the subject of the local affection the greatest number of years, proved to be the longest liver after the operation. A question of great practical importance might arise in this connection. Would these patients have died within an average of thirteen months from the date of the operations had none been performed? Or in other words, does the removal of a cancerous growth tend to establish a relative limit to life? These cases certainly give an affirmative answer to such a question. The great majority of cases, as we gather them from statistical calculations go to strengthen this position. But these reflections are leading me from other considerations connected with this subject, which are probably of equal, if not of greater importance.

The cases reported very clearly prove the following facts:

1. That a wound made for the removal of a cancerous growth including the entire local disease, will, under ordinary circumstances, heal with great promptness, and that the cicatrix may remain sound. Such was the result in each of these cases.

2. That neither the integrity of the cicatrix nor the sudden return of health which may follow an operation, affords any immunity whatever from a subsequent relapse.

3. That the secondary manifestations are apt to appear in organs more immediately essential to life, accounting in a great degree for the remarkable limit to the duration of life after an operation.

The conclusions deducible from these propositions are, first, that cancer is dependent upon constitutional dyscrasia, which cannot be eradicated by any topical appliances, however successful they may be in relieving the local distress; and secondly, that no beneficial results are to be hoped for by the mere removal of a cancerous growth, but on the contrary rather is it to be expected that in the majority of cases the transfer of the cancer irritation to important organs, will prove more signally disasterous to life. If this view of the subject be true, as well might we expect to cure a case of syphilis by cauterizing the chancre, or to eradicate scrofula by the extirpation of an enlarged lymphatic gland, as to relieve a case of cancer by the mere removal of a tumor, it being but the local manifestation of a constitutional vice.

It is proper, however, to remark, that the doctrine of the constitutional nature of cancer is not universally admitted by pathologists. It is affirmed by many entitled to credit, that cancer in its first inception, is purely a local disease, and only becomes constitutional in its progress and secondary development. In the French

schools of medicine may be found numerous advocates of this theory. Amongst these Velpeau may be considered as occupying the most prominent position. A very animated discussion upon this subject occurred in the Academy of Medicine, Paris, in 1854, in which MM. Robert and Velpeau were the principal disputants, the first affirming and the second denying the presence of this peculiar diathesis as essential to the existence of cancer. The great discrepancy in the result of Velpeau's operations, when compared with other surgeons, induced M. Robert to call in question the correctness of his diagnosis. His success certainly has not been experienced by other surgeons.

Taking the generally received opinion as testimony upon this subject, there would seem to be but little doubt remaining as to the necessity of some peculiar diathesis in the production of this disease. What that diathesis is, and what circumstances are necessary to excite it to the development of a cancer growth, are questions which pathologists have not thus far been able to explain.

The difficulty experienced in correctly diagnosing a case of cancer, has given rise to many of the conflicting opinions which have heretofore obtained on this subject, and which at present lie in the way of reliable investigation. Notwithstanding so much has been written, and so much of theory promulgated, aiming at this one object, yet it cannot now be said with truth that there is a single pathognomonic characteristic, by which the cancerous diathesis, or even a cancer tumor may be unqualifiedly recognized. The aid afforded by the microscope in detecting the presence of the cancer cell, as it has been denominated, though at one time considered an unerring acquisition, is now only relied upon to a limited extent. Recent experiments have clearly proven that cancer may exist with or without this peculiar cell formation. It is farther claimed that tumors presenting the ordinary indications of benign growths, do occasionally contain cells, in which this peculiar conformation may be recognized. The following examples are in point: About the first of August last, I removed a tumor from the thigh of a negro man, which was attached by a pedicle to the skin and cellular substance immediately beneath it. An examination of the tumor after its removal with the naked eye showed that it was only a benign fibrous growth. A small quantity of fluid, squeezed from it, was tested by the microscope, when a most interesting and beautiful display of cancer cells was presented. Another case, in a dying condition, from the secondary formation of a malignant growth, was submitted to the same test, when not a single cancer cell could be discovered. It might be argued, however, that in the first of these cases, the diathesis existed, and that the tumor, though benign in its character, was selected as the most acceptable location for the deposition of

the cancer cells; whilst in the second, the specimen obtained might not have been a true representation of the growth from which it was extracted. Such conclusions, were these the only examples, might with some degree of cogency be entertained, but strengthened as they are by similar results, entitle them at least to some degree of confidence.

There is one theory of this disease, which pathologists with few exceptions adopt. It is now almost universally conceded, that the development of cancer is the result of some anomaly of the blood, which anomaly is primary to, and productive of, the peculiar dyscrasis or cancer diathesis. What the peculiar condition of the blood is which produces the effect in question, neither the tests of the microscope, nor chemical analysis, have thus far explained. The experiments made though, have done some good in the encouragement afforded through partial results favoring some of the characteristics observable in cancer. We are still left, however, unadvised as to what is the true pathology of the disease.

Before closing these observations, I wish to call the attention of the members to a few thoughts, which, though somewhat speculative, seem not to be contradicted by many of the leading features which characterize the cancer dyscrasis.

Taking the assumption as true, that the constitutional vice is seated in the blood, a legitimate enquiry suggests a farther investigation of the qualitative nature of the fluid, in its departure from the healthy crasis. Disease dependent upon anomalies of the blood, results ordinarily from one of two conditions. The first is that in which defective action is manifested; the consequence of anæmic anomaly. The second is the reverse of the first, and results from a state of the constitution denominated plethora, hypinosis, or in contradistinction to anæmia, may be termed hyperæmia. Without stopping to enquire into the specific character of the blood in these adverse conditions of the system, the general conclusion must be that whenever disease supervenes in the two, it cannot be identical. In the one it is observable in defective innervation, in the other in exalted vital action, consequently the diathesis of one must be dissimilar to the other in direct ratio to the extent of the departure. It was by this plan of investigation that the present pathology of phthisis pulmonalis was arrived at. It is now a well established principle that the formation of tubercle is the consequence of defective vital powers, in which innervation is at fault. An observance of this principle has led to important practical results. The treatment once adopted in consumption is now abandoned, and though it is still an incurable disease, its subjects are enabled to live longer than heretofore. And to such as have hereditary taints, almost an entire immunity from its tendencies may be enjoyed, by attention to a course of living, the object of which is to build up the constitution,

and to keep the vital forces in full performance of their several functions.

Could we learn this much of the pathology of cancer, the practical results would be equally valuable. And why may we not?

To apply this purity of reasoning to the subject under consideration would lead at once to the enquiry, as to which of these conditions are primary in the cancer diathesis. Does this disease have for its primary cause the same qualitative character of the blood that obtains in tuberculosis? All pathologists, I believe, acknowledge that it does not. A comparison of the subjects of the two affections, their modes of life, the onslaught of the disease in each, as well as the progress and development, all go to prove the dissimilarity. This absence of identity does not obtain from a want of relative frequency of attack in different organs of the body, but in the character of attack, and the pathological condition shown in the localization of each.

Take cancer patients as a whole, examine their habits of life, together with the peculiar constitutional tendencies that have characterized them previous to the manifestation of the disease, and much will be found to establish the fact that it is from an exhausted state of the vital functions that the anomalous changes originate.

The statistical tables of cancer show that the largest number of cases occur about the period of life when all the vital powers of the system have arrived at the acme of physiological function, and when a change is about to take place in which the producing and expending processes are involved. Then it is that we might reasonably expect a manifestation of whatever morbid phenomena the circumstances of previous years had been instrumental in accumulating. Take for example the case of a female, who has lived through the years of reproductive life, whose health has been good, and whose catamenial functions have never been at fault, bring her to that period when a change has to take place, when the monthly flow has to cease, and when all the relations of functional life have to adapt themselves to new modifications, and we have pictured a proper subject according to statistical history, for the development of cancer diathesis. At this period the mammary glands and the uterus are peculiarly influenced; a hypertrophied form of disease appears in the one or the other, which we denominate cancer. Or in the other sex, take the man, who has lived at ease, who has kept his blood rich by indulgences in the luxuries of the table, and the use of alcoholic drinks; bring him to the period when the equilibrium of functional life has to be changed, and the same statistical record shows this to be the time when the cancer tumor more often makes its appearance. Reverse these pictures, and you will find but few instances of the supervention of the cancer diathesis or the presence of malignant growths.

A few practical observations may with propriety be brought to strengthen this position. It cannot but be remarked that sudden and active improvement of the general health not only occurred in the cases reported above, but that this condition almost invariably follows operations for the removal of cancerous growths. It is equally remarkable that a relapse of the disease usually takes place at the time when the general health of the subject seems to be entirely re-established. Paget makes a robust constitution and the active performance of the vital forces, obstacles to the removal of a cancer tumor, and even urges the propriety of abandoning the operation under circumstances of this character. Rokitansky has observed cancer tumors sometimes to disappear when the constitution has suffered from attacks of other diseases, or where the richness of the blood has been reduced by privations. It is not improbable that occasionally, both the cancer diathesis and the cancer deposit, are so modified by circumstances of this character, as to result in an entire eradication of the disease.

If then these speculations should prove to be true, and an observance of them be adopted in the treatment of cancer, might we not expect practical results more flattering than those that have heretofore attended the efforts of the profession? The treatment of cancer has seldom extended beyond the local deposition, and will always be ineffective as long as this course is pursued. Should the researches of pathologists, however, succeed in bringing to light a more rational diagnosis in which the cause and effect, proximate and remote, of this disease, can be arrived at, the hope may be a vain one which might look forward to the time when it will be classed amongst the maladies of life amenable to treatment. But in the present state of our science, remedial agents, whether locally or constitutionally administered, seem to possess but little efficacy in removing the disease, or even protracting to any great extent the life of the subject.—[*Nashville Med. and Surg. Journal.*

On the Otorrhœa of Young Children. Translated for the Boston Medical and Surgical Journal, from the *Journal für Kinderkrankheiten.*

Otorrhœa, or a discharge or running from the ear, consists, in very many cases, of merely a chronic inflammation of the external passage of the ear, which has given rise to an increased secretion. The inflammation is usually confined to the external portion of the meatus, but sometimes extends to the surface of the membrane of the tympanum. The disease is most frequently observed in children, although it is not rare in adults. In the former, it is generally accompanied by a tendency to glandular engorgements, with symptoms of general debility; in

adults, it is also the sign of a depressed condition of health. The exciting cause may be a blow upon the ear, the employment of irritating local applications to the ear, or any acute inflammation of the lining membrane of the meatus; but the most frequent causes are scarlet fever, measles, or catarrhs. Often no cause can be discovered; the children complain of a slight iritation in the ear, which they seek to allay by introducing the finger, or a little stick, and the irritation disappears when the discharge begins. Sometimes, however, the discharge is the first symptom of the disease. In the early stages, the hearing is only slightly diminished by the disease, even when the inflammation and swelling extend to the external surface of the membrane of the tympanum; but when the disease has existed for any length of time, the membrane itself participates in it, and dullness of hearing, or deafness ensues. Moreover, it must be borne in mind, that catarrh of the meatus and external surface of the tympanum, is often but a symptom of irritation *within the tympanum*, and ceases as soon as this irritation is removed. After the disease has existed some time, there is often considerable irritation of the meatus, amounting, at times, to acute pain, with occasionally slight hæmorrhage. Hæmorrhage is more frequent, however, when there is a polypus in the meatus.

On examination of the meatus, its lining membrane is found to be thicker than usual, and sometimes so much so as to close the passage entirely. In many cases the membrane is red, and destitute of epithelium; on the other hand, it is frequently white, and covered with a thick epithelial layer. The secretion is generally very fœtid, of various colors; sometimes of a milk-white, at others, of a dark slate color; and whatever its quantity, color, or consistence, it never contains flocculi, but when mixed with water, renders it cloudy.

It need hardly be said that polypus sometimes exists along with chronic catarrh of the meatus. In such cases there is bleeding from the ear, and flocculi are found in the secretion. The latter are also found when there is ulceration of the fibrous tissue of the membrana tympani, in which case blood is often mixed with the secretion. If the catarrhal inflammation extends to the mucous surface of the membrana, the latter becomes, like the meatus, thickened, and often very much congested. The membrane then loses its natural color and form; if we are able to employ a speculum, the outer surface is seen to be flatter than usual, and, in consequence of its thickening, neither the long nor the short process of the stapes is visible.

In the *treatment* of catarrhal otorrhœa, it is of the first importance to remove the secretion, and keep the meatus clean. This is best done by frequent syringing with lukewarm water. If there be so much pain or tenderness that the syringe cannot be used, one

or two leeches must be applied to the outer edge of the meatus, followed by warm fomentations or poultices, or the vapor of warm water may be directed upon the ear. After all tenderness is removed, and the meatus cleansed from the secretion, weak astringent solutions should be injected, and moderate counter-irritation applied to the mastoid process. These simple means, in connection with remedies for improving the general health, especially tonics, suffice, in very many cases, for curing the discharge. In very obstinate cases, the counter-irritation to the mastoid process must be maintained, so as to keep up an artificial discharge, which is best done by means of croton oil; and a strong solution of nitrate of silver, (ten to forty grains to the ounce,) should be thrown into the meatus every third day, by means of a glass syringe.

There are cases, however, which resist this treatment, the discharge continuing unchanged for two or three months. The treatment should then be steadily persevered in, as it may at least prevent ulceration of the membrane of the tympanum, caries of the bones, and the development of polypi.

Report of a Case of Popliteal Aneurism, successfully treated by continued Flexion of the Knee-Joint. By ALEXANDER SHAW, Esq., Surgeon to the Middlesex Hospital, etc.

AT a recent meeting of the Royal Medical and Chirurgical Society of London, Mr. Alexander Shaw, Surgeon to Middlesex Hospital, reported a case of successful treatment of Popliteal Aneurism, by the above method which seems to have been recently particularly recommended by Mr. Ernest Hart, of the West London Hospital. Any successful endeavor to avoid the use of the knife, by so simple and practicable an expedient, well deserves the attention of the profession. Other cases are reported—the following, is perhaps the most striking:

The patient, aged thirty, first perceived a pulsating tumor in the left ham a week before his admission into the Middlesex Hospital. It was of the size of a lemon, occupied the centre of the popliteal space; was easily compressed; the pulsation was strong, and there were other signs of its being a recent aneurism. On December 1st., the knee was secured in the bent position, by a band brought round the foot and thigh, and fixed near the hip. The immediate effect of the flexion was that the patient ceased to feel the beating of the tumor, and that on inserting the oiled finger into the flexure behind the knee,

no pulsation could be discerned. On the fourth day, when the limb was unbound, the tumor was found to have lost about a third of its original size; its walls were thicker and denser, the force of the pulsation was considerably diminished, and the sac had receded more deeply into the popliteal cavity. Gradual improvement continued to take place. Between the third and fourth week from the commencement of the treatment, the sac had become greatly reduced in size; its walls appeared nearly solid, and the pulsation was so faint, that it was expected at each visit to find it extinct. The treatment was varied, by occasionally undoing the strap, which confined the knee, for several hours together; but owing to the stiffness caused by the long continuance of the flexion, the position of the joint was not much altered by the relaxation. I was not till the thirty-eighth day that the pulsation in the tumor altogether ceased. The sac was at the time about the size of a walnut. The patient gradually recovered the power of extending the joint. On the fiftieth day, he could walk with only a slight halt, and on the fifty-sixth day he was discharged. During the first ten days, the patient complained of the pain, as well as the irksomeness, of keeping his knee constantly bent; and for a slight swelling of the joint, a lead lotion was applied. Afterwards, he made light of the inconvenience, and never at any time asked to have the belt relaxed.

At the close of the case, the author offered a few brief remarks on the principle on which the cure was effected, and, in illustration, added the observation that, by extreme flexion of the knee-joint of a sound limb, the force of the current of blood through the popliteal artery can be weakened to such a degree, as to cause stoppage of pulsation in the tibial arteries.

Mr. Fergusson eulogized the papers read, and said he regarded the proceeding described by Mr. Hart as a valuable addition to the practice of surgery. He spoke of the value of pressure generally, in the treatment of aneurism, and also of "manipulation"—modes of treatment which he thought would set aside, in many instances, the necessity for the knife. In the plan pursued in the cases before the Society, there might be failures, but this was no reason why we should discard the method, but should rather encourage us to persevere to determine the real value of the proceeding. The plan was not altogether novel, for it had been tried three or four years since in King's College Hospital. One of his house-surgeons had ascertained, in a case of popliteal aneurism, that when the leg was flexed upon the thigh, the pulsation of the tumor ceased. The aneurism was of the size of the fist, and was treated by pressure in the groin, and by flexure of the leg upon the thigh. This was persevered in for some time, but without benefit. The man, being im-

patient of treatment, left the hospital and died of some other disease. To show the influence of position in certain cases of aneurism, he related a case of that disease in the popliteal space, in which the emyloyment of pressure gave encouraging, but tardy results. It was found in this case, that on extending the leg to its full degree, after the employment of pressure, all pulsation in the tumor ceased.

Mr. Birkett briefly referred to three cases of aneurism, treated by pressure which had come under his notice, in Guy's Hospital. In one case, ordinary pressure in the groin was applied; then pressure by flexion. Neither did good, but it must be admitted that they were not fairly tried. The femoral artery was afterwards tied, and the patient recovered. In the second case, ordinary pressure was applied at first with success; but suddenly the tumor became much enlarged, the femoral was tied, and the patient did well. In the third case, the patient, a man, had an aneurism in the right popliteal space. Pressure was tried, and in fourteen days he appeared well. The tumor contracted, and felt like a small hard ball. Flexion was then resorted to, but not persevered in, and ordinary pressure was again employed. The aneurism, however, gave way, and the femoral had to be tied. The man subsequently had a small aneurism in the left popliteal space; he would not submit to flexion, so the femoral vessel was securred.

Mr. Savory said that these cases were especially interesting and instructive in their relation to the physiology of the blood-vessels. It was familiarly known that a transverse wound of an artery gaped widely, and that when an artery was completely divided, the ends retracted. Yet these important facts had seldom received more than a passing notice. They had never been explained. To what was this retraction due? The muscular tissue was in no way concerned in it, for it occurred at a long period after death, as well as during life. Neither would elasticity alone explain it. Another condition was required, and that was tention. The arteries were elastic tubes, always tense; so that, when divided, by no management of posture or position could the retracted ends be brought into apposition. The extent of the retraction was a measure, then, not of their elasticity, but of their tension. This constant state of tension was obviously connected with their purpose; by it their patency, under every variety of movement and position, was secured. But this rule had its exceptions, and these were to be found at the knee and elbow joints. At these parts, when an artery was divided, extreme flexion would bring their ends into apposition; but in this position, and for this very reason, the course of the vessel was interrupted; the course of the blood through it was impeded; the pulse ceased in the limb beyond. Thus

he conceived was explained the principles upon which the cure of aneurism by this means was accomplished. It was not due to pressure in the sense in which that term had been employed. It was due to the fact that the circulation through the artery at a short distance on the distal side of the sac was arrested; so that, as far as the principle was concerned, it would probably succeed, whatever part of the popliteal space the aneurism occupied. Now, in connexion with this interesting fact—the arrest of the current through the artery, by extreme flexion of the limb—Mr. Nunn, in some observations on the arrangement of the arteries of the limbs, recently published, has alluded to the remarkably free anastomosis which existed around these joints. They were clearly for the purpose, as he said, of compensating for the occasional interruption through the main channel. He (Mr. Savory,) added, this plan of treatment appeared free from one grave objection to the ordinary treatment by compression, namely, of interfering with venous circulation. For although in extreme flexion, the current through the main vein was interrupted also, yet here there was also an abundant superficial venous anastomosis around. The veins, like the arteries, were elastic, and to say the least, were equally tense.[—*Lancet.*

Puerperal Convulsions. By Francis H. Ramsbotham, M.D., Obstetric Physician to the London Hospital, etc.

On Monday, February 7, 1859, at 5 P. M., I was sent for by Mr. Pryce, of Walworth, to Mrs. G., Beresford street, aged twenty-eight, a stout, plethoric woman, pregnant for the first time, between six and seven months. She had complained, for six days before the attack, of drowsiness, confusion of ideas, with slight pain in the head, stertorous breathing, and puffy hands and face. She had never been the subject of hysteric or epileptic fits. In the afternoon of Sunday she experienced a severe attack of vomiting and purging, and at 9, P M, was seized with a violent convulsion. The fits recurred very frequently—the people about her said every ten minutes—through the night and during Monday. She remained perfectly insensible the whole time, her breathing heavy and stertorous. On my arrival however, there had been an intermission of nearly an hour free from fits. and she had just swallowed two or three tea-spoonsful of tea for the first time since the beginning of the seizure. Nevertheless she was still quite unconscious, with widely-dilated pupils, acting sluggishly to the stimulus of light. The uterus occasionally became hard, and there seemed to be a disposition for the commencement of premature labor. She had been bled twice during the night,

losing about thirty ounces of blood at the two operations; and in the day had been cupped on the back of the neck, and twelve leeches had been applied to her temples. The hair had been cut off, ice was applied to the head, and a turpentine enema had been administered, which had brought away a large quantity of fœtid stools. I had some difficulty in reaching the os uteri with my finger, for it was very high, and inclined more than usually backward. It was dilated to the sixpence, just admitting the end of the finger, and the membranes were felt tense. Before withdrawing my hand I ruptured the membranes, and gave exit to a considerable discharge of liquor amnii; I then felt a limb, but could not make out which. Her size was greatly diminished. She had no more fits while I stayed in the house. I recommended that as long as she remained unconscious three grains of calomel should be placed on her tongue every two hours, in the hope of passing into the stomach; and that another turpentine enema should be injected. There were only two more fits after I left; labor-pains supervened, and she was delivered at 2, A. M, (Tuesday;) the knees presenting. Her consciousness gradually returned soon after delivery; though headache continued. On Saturday, the 12th, Mr. Price wrote to me, that he had seen her that morning sitting up, after a refreshing sleep of five hours; that she still complained of her head, and felt relief from the cold application. The lochia after delivery were very scanty; she took ten grains of calomel, and for two days the sphincters performed their duty imperfectly. It is remarkable that she has no recollection whatever of anything that occurred for six days before the attack appeared, although she was following her ordinary occupation all the time; and except for the headache and drowsiness, seemed as usual. No albumen could be detected in the urine. She is now convalescent.

Holding the opinion, as I do, that an attack of puerperal convulsions is merely a modification of cerebral apoplexy, I consider that this young woman's life was saved by the prompt and decisive bleeding.—[*Med. Times and Gazette.*

Antiquity of Metal Sutures.

Dr. J. H. Aveling calls attention (Med. Times and Gaz., Jan. 22, 1859) to the fact that Fabricius Aquapendente, in 1647, gave all the reasons which are now being put forward for preferring the inorganic to the organic ligature. After describing the ligature of Fallopius, which was of thread, and like the one which we until lately have been using, and that of Guido, which was made of metal, and hooked the two lips of a wound together; he says that he provides himself with many flexible needles of iron or of brass, made soft, except at the point, over burning coals. These he passes

through the lips of the wound, and then turns back the extremities, the right to the left and the left to the right, fitting them over the wound either straightly and plainly, or by making a knot and allowing them to remain until the wound is almost agglutinated.*

The following are the reasons Fabricius gave more than two hundred years ago for preferring his metal fibula to that of Fallopius, which was of thread:

"Quod si licet aliquando paradoxum vobis afferre, dixero potius meam fibulam potiorem esse, propter rationes ex comparatione desumptas à juvantibus, et nocentibus, si quidem fibula Fallopii ex filo facta, mordet ubique carnem, quia filum asperum est, et inæquale, cum sit tortum, acus verò livigata est, et perpolita. Rursus filum mordendo labia vulneris transversè ea perrodi, quod experientia passim patefacit, et confirmat; at acus flexibilis, cum rotunda sit, et levigata, nihil istiusmodi facit: exemplo sint annulli aurei, aut ferri qui auribus perforatis diutissime gestantur, uteumque penduli sint. Rursus si filum valentius stringatur, interdum rumpiter, quo non patitur acus mollis, ferrea, aut œnea. Amplius filum est materia, quæ facilè tenditur, et laxatur, ferrum verò flexibile neutiquam laxatur. Amplius laxitas ex filo dupliciter succedit, tum ex laxa fili natura, tum ex perrosis labiis, unde etsi à filo labia vulneris ad mutuum contactum adducuntur, non tamen adduc conservantur, quia propter fili naturam dupliciter laxantem disjunguntur, et hiant; sed neutram laxitatem ex acu flexibili rotunda, et perpolita expectare oportet. Ultimò filum non difficulter putrescit à sanie, et ichoribus, at acus ferrea, aut œnea, immunis est ab hujusmodi labe. Quod si tandem addatis, æs, et ferrum habere vim refrigerandi, et adstringendi, vulneris glutinationi consentaneum erit: et hoc est argumentum veritatem pardoxi omnino comprobans, et confirmans."†

These advantages may be summed up thus: 1. Iron does not eat into the flesh. 2. It does not ulcerate out. 3. It does not stretch and break. 4. It is not rotten by the discharge.

What more remains to be said than is here stated? Is it not curious that we are only just now beginning to appreciate the fact which Fabricius gave to the world so many years since?

[*American Jour. of Med. Sciences.*

New Method of Curing Hydrocele.

THIS method, suggested by Dr. Simpson, at a meeting of the Medico-Chirurgical Society of Edinburgh, is founded on the fact that iron and other metallic wires, when placed in contact with living tissues, did not, as a general law, excite inflammation to

* I think this plan of using needles might be returned to with advantage in some cases of wounds about the face.

† De Chirurgicis Operationibus, p. 146.

a higher stage than that of adhesion, or the effusion of coagulable lymph. Dr. Rothmund, of Munich, performed the radical cure of hernia by exciting adhesive inflammation in the returned hernial sac, passing, for this purpose, and leaving for eight days, a metallic needle traversing the peritoneum; and had not, it was averred, lost a single patient out of 1000 operated on. If metals in serous sacks create a higher stage of inflammation than the adhesive, such a fortunate result as this would not have been attained. Dr. S. had thought for some time that metallic wires passed through the sac of a hydrocele would act in two ways: first, they would drain off the fluid; and, secondly, they would subsequently, by their presence, form the surest means of exciting the subsequent amount of adhesive inflammation that was required for the cure of the disease. Dr. Young had, in one of his patients, afforded him an opportunity of putting this idea to the test. Dr. S. showed the Society the slender wire or metallic seton which had been used in this case. It was passed through the sac by first traversing the sac from below upwards with a long-handled surgical needle, such as is used in transfixing and tying hæmorrhoids, threading the eye of the needle, after it was projected through the scrotum above, with three or four slender iron threads, pulling the needles then backwards through the sac and out, and thus leaving the metallic seton in its place. The liquid drained off in an hour or two; adhesive inflammation set in, and progressed for two days, when it began to subside. The wires were removed on the third day; and the cure had remained apparently quite complete, with the vaginal sac firm and consolidated. Dr. Young had promised to publish the whole case at length. This method of treating hydrocele was, Dr. S. held, much simpler in its performance than tapping and injecting; not by any means so painful to the patients; less likely to produce a suppurative or dangerous amount of inflammation; and, perhaps, experience would show also, betimes, that it was surer and more certain in its results.—[*Edinburg Med. Journal.*

New Mode of Administering Iodine.

Efforts have lately been made in France to administer iodine in a more efficacious manner than had hitherto been done. M. Leriche of Lions has published valuable articles in L'Union Médicale, wherein he endeavors to show that iodine, combined with vegetable substances, advantageously replaces cod liver oil. He proposes a syrup made of the juice of water cress and iodine, and also an iodine wine. The syrup has the advantage of not fermenting, and contains exactly one grain of iodine per ounce.

The wine is composed thus: Bordeaux wine, eight ounces; concentrated infusion of red roses, about thirteen drachms; tincture of iodine, one drachm and a half. Each ounce contains one grain of iodine. From one to six tablespoonfuls may be given daily, according to the indications and the age of patients. In the space of three years M. Leriche treated thirty-eight scrofulous patients with the wine; twenty-one were perfectly cured, after a treatment steadily pursued for some time; eight did not improve at all; and nine improved but slightly, either because the treatment was carried on imperfectly, or because it was left off too soon.

M. Boinet, on the other hand, well known by long continued investigations respecting the use of iodine, read on the 28th of September last, before the Academy of Medicine of Paris, a paper, in which he proposes to use iodine as an article of food. The author administers iodine as found in nature, viz: combined with those plants which contain the greatest quantity of the alkaloid. The latter being thus given in minute doses, in a continuous and almost imperceptible manner, yields most advantageous results. M. Boinet uses fuci, marine plants, cruciferæ, salts containing iodine, and some mineral waters holding iodine in solution. His excipients are ordinary bread, ginger bread, cakes, buiscuits, chocolate, wine, beer, syrup, etc., some being especially calculated for children. Trials were begun by M. Boinet as far back as 1849, upon subjects suffering very severely from the various well known scrofulous symptoms, and most of them were cured, after continuing the iodized food for several months. The author has not found that iodine administdred for a long time produced a loss of flesh and atrophy of certain organs. Far from having these effects,, the iodine in his hands has invigorated patients, and favored the development of organs. Messrs. Chatin and Trousseau are to report upon the paper.—[*American Jour. of Med. Sciences.*

New Theory and Treatment of Chlorosis. By Dr. Von Maack.

The glycogenic function of the liver is hardly made known, and already pathologists hasten to assign to it a part in the pathogeny of diseases. Although we receive the ideas of the author with the greatest reserve, we republish his theory in order to illustrate this scientific tendency, common to all ages.

"The diminution of the red corpuscles in the blood of chlorotic patients," says the author, "is an established fact. These corpuscles owe their color to the iron which they contain: it is, therefore, evident that the quantity of this metal in the blood is diminished in cases of this kind. This diminution is not the result of resorption, for the urine contains only a small quantity of solid matter, but it is the consequence of bad elaboration.

"We know also that the very small quantity of iron which the organism in the healthy state draws from the ingested aliments is quite sufficient for all its wants, and that the bile is the only secretion which contains it in notable quantity.

"This being known, how do we explain the formation or development of chlorosis in a young woman who enjoyed good health proviously? She takes the same aliments after the appearance of the disease as before; it is, therefore, impossible to attribute this affection to a privation of the ferruginous element, for, afterwards, as before, the same quantity of it is absorbed, and has sufficed for many years to maintain health.

"The real cause is more likely this, that it is impossible for the organism to transform the iron into hematin and to fix it. From what does this impossibility arise? M. Lehmann has proved that hematin, like salicin; phloorrhizein, etc. is a saccharine compound. Hematin needs, therefore, sugar for its formation. Thus, as soon as the saccharine secretion of the liver is diminished or arrested, the formation of the coloring substance of the blood will cease, and consequently that of the red corpuscles.

"The true origin of chlorosis would consequently, be the want or the diminution of the quantity of sugar elaborated by the liver."

The author draws the following conclusions from his premises:—

1. The treatment of chlorosis must consist in the use of sugar. 2. The object of the treatment must be to re-establish the saccharine secretion of the liver. 3. The medication which consists in the abundant use of iron has not introduced into the organism an element which was wanted there, as is believed, but has cured by acting upon the healthy secretion of the liver.

The best remedy, according to Dr. Von Maack, consists in the use of grape-sugar and of honey. This treatment of chlorosis, it seems, has been practiced for a long time by the people in the northern part of Schleswig, and of certain regions of Hanover. An adjuvant to it is cold water used freely as a drink; already Petter has recommended it as excellent in diabetes.—[*Archives für Wissentschaftliche Heilkunde*, and *North.Am. Med. Chir. Rev.*

New Hygrometric Theory of Cholera.

THE meteorological relations of the cholera epidemic were for the first time carefully studied in this country during the last visitation. It cannot be said that the results were very conclusive in any one direction, or that any theory of disease in relation to climatal disease has been eliminated from the investigations then made; but the council of the British meteorological society, in their last report, while recording their sense of the incompleteness of these and other collected observations for any medi-

cal theories, undertake to continue their labors, and express a strong hope of useful deductions.

M. de Ruolz, well known for important discoveries in the art of electro-gilding, has been content to argue from a narrow basis, and has lately communicated to the Cercle de la Presse Scientifique of Paris an interesting series of facts regarding the proportion of moisture contained in the atmosphere during the prevalence of cholera. By analyzing the various statistical data collected during the French epidemics of 1832, 1849 and 1854, M. de Ruolz has deduced the following facts: In 1832 the epidemic in Paris reached its height in April, when the hygrometer was lowest: it declined to the utmost in September, when the hygrometer was highest. In 1849 the hygrometrical observations at the observatory of Paris had been unaccountably neglected; but 1854 afforded results quite in accordance with those of 1832. Hence, M. de Ruolz infers that there undoubtedly exists a positive coincidence between the intensity of the epidemic and the hygrometrical state of the atmosphere, the former being in the inverse ratio of the humidity of air. Other circumstances he considers to point to the same conclusion: thus, Lyons, a city remarkable for its damp atmosphere, owing to the two rivers which embrace it, has never been visited by cholera. Amongst washerwomen, who live in a damp medium, he says the cholera has always been very low, and he makes the same assertion with reference to "persons living in damp places, on the banks of rivers, &c." Finally, M. de Ruolz tells us that during the last choleraic invasion in London, the copious watering of the streets was found very beneficial. The views thus enunciated in the Cercle Scientifique did not remain wholly unopposed. Thus, it was remarked that sailors were very subject to cholera; that cholera made great havoc in Holland, where the air is notoriously moist; and that in certain localities the cholera has been known to lay waste one bank of a river and to spare the other. M. de Ruolz, however, pressed for further investigation, and suggested that, by way of experiment, in any future epidemic the streets should be well watered, and the fire engines should play on the roofs of the houses in the infected quarter. It were idle to smile at his singular expedient, if indeed it were probable that any useful result could flow from it. And there is no valid reason why Mr. Braidwood should not brigade his force against an epidemic, or why cholera should not be attacked with the fire engine as well as with the lime pail and the brush of the whitewasher—a favorite panacea with metropolitan vestries—or by the artificial creation of ozone and the introduction of certain ozonified breezes, as more subtle chemists have recently suggested. But we have the strongest doubts whether M. de Ruolz's theory will "hold water." The experience of Lambeth,

of Wandsworth, and of other humid districts close to the river side, has certainly not offered confirmatory facts; and though unacquainted with the actual statistics of deaths from cholera amongst London washerwomen, we are in possession of a number of isolated observations which do not dispose us to regard soapsuds as a prophylactic against epidemics, in the sense which M. de Ruolz suggests.—*London Lancet.*

Varicocele—Clinical Lecture of M. Nelaton. Communicated for the Boston Medical and Surgical Journal. By Hall Curtis.

Messrs. Editors.—Some of your readers may be pleased to know the views of this surgeon, who, having been attached for many years to the Military School of St. Cyr, was enabled to examine several cases of varicocele, and was induced to believe that this affection, though by no means rare, is neither well understood nor suitably treated—that errors are found in all the surgical works mentioning the subject—that the general causes to which its formation is attributed are wrongly stated, and really have no bearing in the matter.

Among the causes which our classical writers have much insisted on are found the three following:—hernia, with its consequent treatment, the truss; abdominal tumors; constipation.

If one examines the period of life when the varicocele is most frequently seen, namely, from the 16th to the 20th year, instantly he has a negation of the causes mentioned above, and considered the most predisposing agents in the malady.

Firstly, hernia is very rare at that age. M. Malgaigne, in 300 cases occurring between the ages of 10 and 40 years, finds only 26 cases between the 10th and 20th year.

Secondly, abdominal tumors are excessively rare in young subjects, especially at that period when you encounter the varicocele.

Thirdly, constipation. Young subjects are but rarely found who labor under this affection to a degree which, by its obstinacy, could be sufficient to produce a compression on the spermatic vein, and form the varicocele.

Again, hernia is much more frequent at the right than the left side—whereas varicocele is found almost constantly at the left.

From the autopsies which M. Nélaton has made, he proves that when a varicocele exists, the spermatic vein is tortuous, knotted and dilated throughout its course in the abdominal cavity; the hernial sac or the truss pressing upon the vein would cause the dilatation of the vessel below the inguinal ring only, and not within the cavity of the abdomen.

Anatomy has furnished a *supposed* solution of this abnormal

condition, and to the question why is the varicocele most frequently found in the left spermatic vein, has given a plausible explanation by referring to the anatomical disposition of the vein, and the manner in which it joins the large trunk into which it pours its contents.

The right spermatic vein, near its junction with the ascending vena cava, pursues a direction nearly similar to that of the larger vessel, and by a gradual approach joins it at an acute angle, the two currents readily uniting and flowing onward without obstruction.

The left, on the contrary, it is stated, joins the emulgent renal vein at a right angle, thus in a direction perpendicular to the current of blood coming from the kidney—a current considerably larger and moving with greater force. From this it appears that the spermatic vein is unable to empty its contents into the renal, in consequence of which is formed the varicocele.

This, however, is not true; the left spermatic vein does not enter the renal vein in a direction perpendicular to the latter, but bending outward from its course turns again inward, describing a double curve on itself, and falls into the renal vein, forming an acute angle, as the right spermatic in its junction with the vena cava.

Another reason assigned for the frequency of varicocele in the left spermatic vein is its greater proportional length. This may be disproved by the fact that a varicosed condition of the spermatic is not more common in tall men than in those of medium stature, though naturally we should find the veins longer in the former class.

The evil consequences of varicocele have been much overrated. Many authors state an atrophy of the testicle follows the varicosed condition of the vein. This is not by any means proved. To judge properly of the question, one should have ascertained that the subject was endowed with equal health and strength in each testicle before the appearance of the varix—and that after its advent the testicle had diminished.

That you find the testicle smaller when a varicocele exists, is at times true. But this is owing neither to a diminution in the testicle, nor an arrest in its development; the fact that the gland is small here, does not depend on the pre-existence of the varicocele, but they coëxist accidentally. Nor because the testicle is small, can you judge that its power of secretion is less than its fellow gland; not unfrequently will you find a considerable difference in the weight of these glands, though their mutual functions are equally performed.

M. Nelaton thinks varicocele an affection whose cause is unknown—usually found in youth and rare in old age—that it disappears as man matures, and that the smaller ones are the most painful.

His treatment is determined by the facts, that they generally exist without pain, do not cause much inconvenience, that they *do not* cause an atrophy of the testicle nor any loss of its power, and that they disappear with maturity. He therefore insists on a palliative treatment—in ordinary cases, the use of a suspensory bandage; when considerable inconvenience arises, you may swathe the scrotum, thus supporting and compressing moderately the vessel, similarly to the elastic stocking for varicose veins of the leg—and only operating as the last measure in those cases where the pain is insupportable.

Easy and Certain Cure of Facial Neuralgia. By Dr. BURDACH, of Luckau.

DR. BURDACH recommends corrosive sublimate as a specific, never-failing remedy, in cases of facial neuralgia. He has used it for more than thirty years, and always obtained a prompt and permanent cure, no matter how severe a form the disease had assumed. The formula he employs is the same which he recommended in Hufeland's Journal for 1826 and 1830, in the treatment of rheumatic gout; it is the following:—

℞. Liquor. Hydrarg. Bichlorid. corrosiv. (Pharmac. Borus.) ℥jss;
Vini Semin. Colchici, ℥ss.—M.
S. Thirty to sixty drops every two hours.

Cases requiring the latter dose were extremely rare. (The Liq. Hydrarg. Bichlorid. corros. of the Prussian Pharmacopœia contains corrosive sublimate and hydrochlorate of ammonia, one grain of each to the ounce of water.) Each dose of the medicine should be followed by a draught of the decoction of the Species ad Decoctum lignorum; (the species ad decoct. lignor. consists of Guaiacumwood, two parts; Lappa, and Saponaria, one part of each; Liquorice-root and Sassafras, half a part of each. One ounce of this mixture is used to a pint of water.) There is about one-thirtieth to one-fifteenth of a grain of sublimate given in each dose, a quantity which is generally well borne by the patients. In order to assist the cure, Dr. Burdach sometimes ordered the local application of veratria ointment, but in the generality of cases it could be dispensed with, as the sublimate acted promptly enough without it. In very sensitive patients, acetic acid, chloroform, or tincture of opium, might be added to the given formula; such an addition, however, is not to be recommended.

To obtain the prompt action of the remedy it is absolutely necessary to give it in fluid form, and at the intervals prescribed above, for in the form of pills it seems to exercise but little control over the disease.—[*Medizinische Cent. Zeitung*, and *North Amer. Med. Chir. Review.*

Cataract.

THE Question was asked at the Congress of Brussels, (*Bulletino della Scienza Mediche*), "Has experience established that certain forms of cataract are curable without an operation? If in the affirmative, what are the means which may be substituted for the surgical?"

If by the word cataract, is meant *spontaneous* opacity, (or happening under the influence of some cause, the action of which is up to the present unknown,) which comes on more or less rapidly, in the substance of the crystaline lens, it may be answered without hesitation: No, there does not exist in the annals of science, a single authentic fact to show that a cataract has ever diminished or been arrested in its development under the influence of any medical treatment whatever.

If it is denominated cataract, the opacity of the crystalline, which is a consequence of a traumatic lesion, there exists demonstrative facts, that antiphlogistic treatment instituted with energy, has arrested the development of this opacity, prevented the extention of it, or caused it to diminish when already very extensive.

If finally the word cataract is extended to the opacity of the capsule, which in the immense majority of cases, not to say in all, are deposited only consecutive to an inflammation of the iris, or of the membrane of the aqueous humor, experience has demonstrated that the opacity may frequently be removed by treatment adapted to the latter affection.

What is the utility of closing the eye-lids in diseases of the eyes? What are the affections which require this closure, and what is the best mode of effecting it?

The objects of closing the eye-lids are to secure immobility of the palpibræ, to secure the globe of the eye from the action of air, and the foreign bodies suspended in it, to contain it, or restrain its movements to favor the action of remedies, by prolonging them in contact with the oculo-palpebral apparatus, and finally, to allow the maintainance, at will, of a uniform temperature.

To these various ends, it may be useful in ulcers and perforation of the cornea; in the protrusion of this membrane, and hernia of the iris, in recent staphylomas, in ophthalmoptosis, and after certain operations on the eye, such as puncture and the operations for staphyloma, cataract, artificial pupil, etc.

Finally, much advantage may be derived from it in ectropion; in wounds with loss of substance of the external superfice of the palpebræ.

The best process for performing it, is that which corresponds most closely with the following conditions: To fix the eye as

far as possible in a state of repose, and diminish in the same degree the friction between the globe and lids; to contain it moderately, uniformly, and in a manner not to produce any pain; not to concentrate too much heat in the eye; to be able to renew it at pleasure, and without trouble or embarrasment, to allow exit to liquids employed in treatment, and to normal and pathological secretions.—[*Pacific Med. Journal.*

Hypophosphite of Quinine.—A New Remedy proposed by J. LAWRENCE SMITH, M. D., Professor of Chemistry, University of Louisville.

THE recent recommendation by Dr. Churchill, of the use of the hypophosphites in the treatment of phthisis, is now undergoing a general test by the medical profession; and so far as reported upon, there appear to be different opinions in regard to their efficacy. Some speaking of them with much praise, while others see but little benefit from their use. In one thing all agree—that no injurious effect arises from their administration.

From my own observation and inquiry, patients using the hypophosphites, either in their solid form or their Syrup or glycerole, have experienced marked relief from many of the annoying symptoms attendant upon phthsis.

The special object of this note, is to bring to the attention of the medical profession, a new combination of hypophosphorous acid, which I have lately had made at the Louisville Chemical Works, namely, the *hypophosphite of quinine.*

It was first made by adding an excess of recently precipitated quinine, to a hot solution of hypophosphorous acid, and on cooling, the salt crystallizes out in beautiful silky tufts, which, when dry and broken up, resembles asbestus in appearance. The method adopted and proposed for making it on a large scale, is by double decomposition; using the sulphate of quinine and the hypophosphite of baryta, the operation must be conducted so that there shall be no excess of either salt in the solution; the solution is filtered from the sulphate of baryta, concentrated and allowed to crystalize, which it does in the manner already mentioned.

The salt thus obtained, is in delicate fibrous crystals, soft to the touch; they are of a beautiful silky lustre, very soluble in hot water; one ounce of cold water at 60° Fahr., dissolves 8 grains of the salt. When heated, it loses its water at about 230°. and at about 300° it turns brown and melts.

Proposed Uses.—If the preparations of hypophosphorous acid are useful in phthsis and analogous diseases, then its combination with quinine must be beneficial in those phases of these

diseases where quinine is at all recommended. I would therefore suggest its use in the hectic fever of phthsis; also as a tonic in the same disease; also in the various forms of cachexy where quinine is used.

Nor ought its use to stop here, for owing to its solubility in water, it can be readily administered in that menstruum, (say 5 grains to the ounce of water,) thus becoming useful for children, and also in compounding, where the presence of an acid is objectionable, as is now necessary in dissolving the sulphate. In the form of a pill, it would be more soluble in the stomach than the sulphate.

With these few hints, I leave the article to the medical profession to be fairly tried, feeling confident that its solubility alone will be sufficient to make it an important addition to our materia medica.—[*Louisville Med. News.*

On Compression of the Aorta in Uterine Hemorrhage. By Dr. SPIEGELBERG.

M. SEUTIN, of Brussels, in a communication made to the Berlin Obstetrical Society, proposed what he termed a new method of arresting uterine hemorrhage, viz., the compression of the aorta, a procedure which he described as both easy of execution and certain of success. Of course, in a society of obstetricians, the pretension to novelty was soon disposed of, and the communication only calls for notice as having induced Dr. Spiegelberg to make some remarks condemnatory of the practice. That compression of the aorta will arrest uterine bleeding, he has convinced himself by many experiments; but the explanation of this is not due to the fact that all blood is thus prevented entering the uterus. The instant we divide the arteries conveying blood to the uterus, its muscular fibres contract, and the organ becomes diminished in size. Every one knows that such contraction will arrest hemorrhage. Dr. Spiegelberg has several times observed these remarkable results in both pregnant and non-pregnant animals; and has found the same consequence follow compression or ligature of the aorta, when it has passed the diaphragm. If, therefore, compression of the aorta, thus excites powerful contraction of the uterus, it should evidently be an appropriate means for arresting hemorrhage, but the author's experiments show that for such compression to be of use, it must be permanent, the uterus distending again, as soon as the calibre of the artery becomes unobstructed. But on a living woman, compression could not be kept up continuously long enough to secure permanent contraction. Moreover, the aorta cannot be so completely compressed through the abdominal

parietes, even immediately after delivery, as it can in animals when the cavity is laid open. So that, however surely we may seem to exert compression, some blood will always gain admission. Again, the closure of the aorta cannot be effected in women as in animals, just below the diaphragm, but only after the large vessels of the intestines, and the renal and spermatic arteries have been given off; from which vessels the organ may obtain an abundant supply of blood. Lastly, the compression employed will also close the vena cava inferior; and the speaker's experiments and observations have convinced him that in such a case contraction of the uterus will not take place—the organ remaining then gorged with blood and relaxed. Indeed, it would *a priori* be expected that if the return of blood from the organ be obstructed, the vessels would become distended, and the open state of their orifices after birth would allow of the escape of their contents. This explains the case in which R. Lee and Schneemann have observed the hemorrhage *increased* after compression of the aorta. Dr. Spiegelberg, therefore regards the practice as destitute of a physiological basis, and of no practical utility; and he agrees with Dr. Schneemann, in considering the cases which have been seemingly benefited by it, to be really examples of excitement of contraction induced by the friction of the uterus made during the attempts at compression of the aorta.—[*Monatsschrift für Gebartskunde,* and *Medical Times and Gazette.*

On the Origin of Flexions of the Uterus. By Prof. VIRCHOW.

VIRCHOW sums up his very elaborate treatise on the mode in which flexions of the uterus originate, in the following propositions:—In the history of flexions we may distinguish three different periods: one of mere predisposition, one of simple flexion, and one of flexion complicated with different inflammatory processes.

The predisposition is frequently created by partial peritonitis; it manifests itself by attacks of the nature of colic, and is at least somewhat lessened by early attention.

Long-continued retention of the urine and of the fæces favors the formation of flexion, particularly at the time of menstruation, the puerperal state, etc., and is, therefore, to be carefully avoided. Enlargements of the uterus, particularly if connected with relaxation of the organ, can increase the flexion very rapidly, while the removal of these conditions, for instance in chronic endometritis, may diminish the flexion to a considerable degree. It is, therefore, of great consequence to keep careful watch over the menstrual and puerperal periods, and to allay catarrhal in-

flammation of the uterus by antiphlogistic treatment and other means.

It is very questionable whether antiflexion can be completely removed; in retroflexion a cure may be attempted. If the flexion is complicated with consecutive affections, particularly with endometritis or perimetritis, a persistent and careful local treatment is requisite. Endometritis may be removed by it; perimetritis, on the contrary, produces adhesions of the uterus, which confirm the flexion more and more the longer they exist, and render it almost impossible to correct the position of the organ.—[*Allgemeine Wiener Medizinische Zeitung*, and *North Amer. Med. Chir. Review.*

Hydrochlorate of Ammonia in Neuralgia.

Mr. H. C. Brenchley, Surgeon to the Brighton Dispensary, relates (*Lancet*, Oct. 16, 1858,) the following case to illustrate the efficacy of hydrochlorate of ammonia in neuralgia.

A young man, aged 23, unmarried, healthy, and without any other apparent complaint, had long suffered from very severe attacks of neuralgia of the face, coming on at intervals of about one month, and lasting from two or three days to a week. It sometimes came on on one side of the face, and at other times on the other side. During one of these attacks I saw him, and ordered him quinine and arsenic, which put an end to the attack for the time. After the lapse of a month or six weeks, he had a second attack, which was cured in the same way. A third attack, however, came on after a shorter interval. This time the quinine and arsenic failed to relieve him. On the third day, when I saw him, he was in great agony, propped up in bed, and unable to do anything from the severity of the pain. The left side of his face was swollen, flushed, and hot, the temperature considerably higher than on the right side; the heat also of the inside of the mouth was so great that I expected I should find matter forming from decayed teeth; but, on examination, I failed to do so.

I now tried the much-vaunted remedy—the valerianate of ammonia, but without any effect. The usual remedies having failed, I gave him the hydrochlorate of ammonia, in doses of half a drachm every hour, in camphor mixture. I saw him three hours after he had commenced this treatment, and found he had been much relieved after taking the second dose; and, having taken the third dose, he was almost free from pain, and begged to be allowed to continue the remedy. The heat and flushing of the face had subsided, and the temperature of the mouth considerably reduced, feeling quite cool after the burning heat of its former state. He went on for three or four days with the reme-

dy, in doses of fifteen grains, three times a day, although there was no return of pain. Three months have now elapsed, and he has had no relapse.

The *modus operandi* of this medicine is not very clear; but whatever other specific virtues it possesses for the cure of neuralgia, in this particular case it evidently acted as an indirect sedative by lessening the arterial action; for the first and most striking effect of the medicine was the rapid lowering of the temperature of the mouth and face. From further observation, I have found that this remedy is most useful in those cases of neuralgia which are attended with heat and swelling.

[*American Jour. of Med. Sciences.*

Observations on the Treatment of Diphtheritic Angina and Laryngitis in Children. By Dr. HAUNER.

BOTH diseases occur only in feeble children, debilitated by previous diseases, mostly, however, in such who have suffered either recently or some time previously from an exanthematous disease. Diphtheritis is contagious, and can be transmitted from sick to previously healthy children; it may become fatal by general infection, pyæmia, or loss of strength, as well as by propagation itself to the larynx, bronchi, and lungs. That treatment will alone be successful which endeavors to stop the progress of the diphtheritic process to important organs, anticipating it, as it were, by local means, and which tries to strengthen the constitution by internal remedies. The antiphlogistic treatment is decidedly obnoxious. Of all local remedies the author considers nitrate of silver the most efficient; he applies the caustic in substance to the diphtheritic layers in the mouth, on the uvula, throat, etc., and takes care to carry the application somewhat beyond the diseased surface. Instead of the stick, a strong solution of nitrate of silver (℈j–℥ss to ℥j of distilled water) may be used. In regard to the prophylactic value of this local treatment the author observes, that he has not seen a single case of diphtheritis of the mouth and throat in which the disease spread and reached the larynx after having been thus treated. But even in diphtheritic croup, nitrate of silver is useful in combination with the internal treatment; the application is, in this case, made by means of a whalebone probang having a pencil of charpie attached to its extremity, or finely-powdered lunar caustic (gr. iij–iv) quickly blown in through a quill, the tongue being depressed by a spatula. In some cases the author prescribed, at the beginning of the disease, an emetic of ipecacuanha, and found it decidedly useful. In regard to the internal treatment of diphtheritis, it is particularly necessary to enjoin a generous diet, (good broth, Liebeg's extract of meat, coffee, beer,

wine, etc.) The best internal remedy is quinia, given with alternate doses of chlorate of potassa, (℥ss–j to ℥iij–iv of distilled water;) the latter remedy exerts a very favorable influence upon the local diseases of the mouth and throat. A useful adjuvant in the treatment of diphtheritic angina and laryngitis is the local application of moist heat by means of compresses soaked in water, and covered over with a dry linen cloth, or other material to retain the heat and moisture. The author finally cautions against the treatment of diphtheritic croup by bleeding, mercurial ointment, calomel, tartar emetic, etc. By making a careful examination of the patient, and by taking the constitution and the previous history of the child into consideration, it will not be difficult to distinguish diphtheritic from true laryngeal croup. —[*Œsterreichische Jahrbücher für Kinderheilkunde*, and *North Amerian Med. Chir. Review.*

On Labial Cancer. By Professor Riberi.

In a notice of the forthcoming third volume of Professor Riberi's "Lezioni Orali," an account is given of his experience with respect to labial cancer at the Turin Clinic. The *ages* of the 81 patients were as follows:—2 between twenty and thirty, 3 between thirty and forty, 11 between forty and fifty, 28 between fifty and sixty, 20 between sixty and seventy, and 17 between seventy and eighty. Of these, 69 belonged to the *peasantry* class, a predominance perhaps attributable to their unnutritious food, their abuse of peppers, garlic, vinegar, and the like condiments, their neglect of personal cleanliness, and their exposure to vicissitudes of the weather. Another predilection of the disease was for the *male* sex and the *lower* lip, inasmuch as only three of the cases occurred in women, and in only four instances was the upper lip affected, two of these occurring in men and two in women. In all but one patient the sanguineous temperament was manifested in a greater or less degree, showing the influence of the conditions of the blood-vessels and of the blood in this disease as compared with that of the nervous system. In seventy-six of the subjects the constitution was good, robust, or even athletic. This confirms the observation made by Pravaz, that the general belief is erroneous which supposes that lymphatic, delicate, cachectic constitutions, are most liable to cancer. Persons become cachectic and enfeebled as the disease advances, as its result, not as its cause.

In most of the patients an unhealthy state of the skin prevailed, and there were few cases in which some complication was not observed, arising from disturbances of the respiratory or circulatory organs, varix, varicose ulcers, chronic gastro-hepati-

tis, pellagra, etc. After awhile the *glands* in the vicinity enlarge, and it is of importance to determine whether their increase be merely sympathetic or symptomatic of invasion of the disease. In the former case, a single gland only usually becomes enlarged, being of recent origin, round or oval in form, movable, and liable to spontaneous changes in size; it is painful and tender to the touch, the skin being warmer than usual, and in some cases slightly reddened. In symptomatic enlargement, two or more glands are almost always affected, large and indurated lymphatic cords stretching between them, and often down the side of the neck. After awhile, the glands may acquire a large size, assuming an irregular form, becoming more or less fixed at their base, being but slightly movable, and not undergoing spontaneous change in size.

Before proceeding to the operation, M. Riberi submits his patients to hygienic and medical treatment calculated to relieve any complication or subdue any inflammatory action that may be present. Some cases of cancroid would indeed be cured by such procedures had the patients sufficient patience to await the result. Believing the employment of caustic mischievous in almost all other forms of cancer, M. Riberi regards them as of great utility in epithelial cancer, especially of the face, when the base is small enough to admit of its entire destruction. But as the tissue of the lip is very soft and yielding, and cancer soon sends widely-spread roots into it, and as patients usually do not apply until the lesion has thus become extensive, the employment of caustics is not admissible. Moreover, considerable deformity may result from its application, and an aggravation of the disease may be produced when the whole has not been extirpated. The operation with the V incision, having its base toward the labial edge, and conjoined when necessary with cheiloplasty, is that to which Professor Riberi gives the decided preference. He enters into considerable details upon this part of the subject, for which we have not space. Whatever form of the operation be adopted, he insists upon the necessity of removing during its performance all glands that may be symptomatically affected.

Of seventy-eight persons operated upon, seventy-three left the clinic cured; some of these, however, returned at the end of more or less long periods suffering from other cancerous diseases, two succumbed to a reproduction of the disease while in the clinic, and three died after the operation from causes not connected with it. The following are the conclusions drawn from a consideration of the cases of eighty-one patients:—1. The disease almost always commences as epithelial cancer or epithelioma of the skin or mucous surface of the lip, spreading thence to the parenchyma, and very rarely begins in this last, extending thence to the surfaces. 2. The skin is almost always

primarily affected, and only in some rare instances by morbid diffusion from the mucous surface. 3. Although very frequently unaffected at first, the mucous membrane becomes almost always implicated in the course of the disease. 4. The cellular tissue of the parenchyma is always simultaneously affected, as are very frequently the mucous and sebaceous crypts, to the great number of which in the lips Benjamin Bell attributed the frequency of labial cancer. 5. The muscular tissue is sometimes unaffected, sometimes participates slightly in the disease, and in some cases is so involved as to become entirely destroyed. 6. Whatever our nosological distinctions may be in respect to the species of cancer, nature shows how ill founded they are, by exhibiting more than one of these together; but facial cancers are those in which this junction is seldomest observed.—[*British and Foreign Med. Chir. Review.*

Observations on the Changes of the Urine in Diseases. By Dr. Brattler.

Dr. Brattler has made a series of very accurate investigations on the changes of the Urine in typhus, morbilli, scarlatina, diseases of the heart, etc., which he laid down in an elaborate treatise, entitled "Beitrag zur Urologie in Kranken Zustande;" München, 1858, Joh. Palm's Hofbuchhandlung.

The author gives the following summary of his urological observations:

Casting a retrospective glance upon our investigations and experiments, we find that the urine does not suffer in disease any changes peculiar to the different morbid conditions, but that these changes are in relation with definite processes going on in the organism. The urine of a case of typhus, pneumonia, cholera, or Bright's disease, may have one and the same qualities, for the very reason that certain processes, which modify the secretion of urine, may take place in any of these diseases.

The Quantity of Urine.—It is diminished: In the commencement of nearly all febrile diseases; in diseases of the kidneys, when the uriniferous tubules are obstructed (morbus Brightii.)

In diseases in which the organism suffers great losses of serum, as excessive diarrhœa, cholera, copious prespiration.

In diseases of the circulatory and respiratory organs, in consequence of which less blood is furnished to the aortic system, and therefore to the kidneys, as disease of the heart, and pleuritic exudation.

It is augmented: By the resorption of hydropic effusions and exudations.

In polydypsia, diabetes insipidus.

Urea.—It is diminished: In the reconvalescence from all acute diseases, in which the organism has suffered a considerable loss of substance through fever, as in this case the nourishment carried into the system is used for the reparation of the lost nitrogenous tissues.

In diseases of the digestive organs which hinder the resorption of the ingesta, as chronic vomiting in atrophy after typhus, and cancer of the stomach.

In diseases of the kidneys, interfering with their functions (morbus Brightii.)

In diseases of the circulatory and respiratory organs, in consequence of which less blood is furnished to the aortic system, and therefore to the kidneys.

It is augmented: In all diseases accompanied by fever, viz: by elevation of temperature. (The frequency of the pulse bears no constant relation to the secretion of urea.) The secretion of urea is the greater the higher the temperature rises.

An exception takes place only when in febrile diseases the function of the kidneys is at the same time interfered with, be it by diseases of these organs themselves, or secondarily by the influence of other organs.

In diseases in which the urea has been retained for a long time in the blood by functional disorder of the kidneys, after removal of the difficulty, as morbus Brightii, cholera, and disease of the heart.

By the resorption of hydropie effusions, as morbus Brightii, and dropsy from disease of the heart.

Chlorides.—They are diminished:

In all diseases in which exudations or transudations take place, these effusions being rich in chlorides, as typhus, pneumonia, pleuritis, Bright's disease, cholera, acute rheumatism, etc.

In the diseases of the digestive organs which hinder the resorption of the ingesta.

In diseases or functional disorders of the kidneys with diminished urinary secretion, as Bright's disease, and disease of the heart.

They are augmented: By the resorption of hydropic effusions.

Phosphoric Acid.—It is diminished:

In diseases or functional disorders of the kidneys with diminished urinary secretion, as Bright's disease, and disease of the heart.

In diseases of the digestive organs which hinder the resorption of the ingesta.

It is augmented: In acute febrile diseases by the increased metamorphosis of tissues containing phosphorus.

The increase of phosphoric aicid is, however, not as constant as that of urea. In diseases in which the phosphoric acid has

been retained for a long time in the blood by functional disorder of the kidneys, after removal of the difficulty, as Bright's disease and cholera.

According to Bence Jones, in acute nervous diseases, and in osteomalacia.—[*Medicinische Central Zeitung*, and *Virginia Med. Journal.*

On Inflammation of the Fallopian Tubes as a Cause of Puerperal Peritonitis. By Prof. E. Martin.

In one of the meetings of the *Gesellschaft für Geburtskunde* of Berlin, Professor E. Martin gave a very interesting lecture on inflammation of the Fallopian tubes as a cause of puerperal peritonitis. An experience of many years has convinced Prof. Martin that—with the exception of severe injuries of the genitals during the act of labor, which may cause the death of the patient in different ways within the first few days—the most common cause of death among lying-in women is pyæmia and emboly, which may be either produced by thrombosis of the veins of the uterus and of the vagina, or by the reception and generation of pus in the lymphatic vessels of the genitals, and which give rise to fever and a great variety of symptoms.

Besides this kind of puerperal disease, the author has, however, observed another less frequent, but just as fatal a one, which depends upon *a propagation of the endometritis into the Fallopian tubes, and an effusion of the purulent products of this salpingitis into the peritoneal cavity.* This effusion of the contents of the Fallopian tubes into the cavity of the abdomen is followed in most cases by fatal peritonitis. In spite of the open abdominal end of the tubes, their contents are not generally discharged at once into the peritoneal cavity, but only after some unusual movement, etc., during which the abdominal muscles contract and press upon the tubes; this is easily explained by the fact that the external portion of the canal of the tube enlarges itself into a sinus as soon as fluids accumulate within the tube. According to the author's opinion, the metrosalpingitis observed in lying-in women, does not always originate first during confinement, but sometimes during pregnancy, and occasionally even previous to that. One of the principal circumstances which speak for the long existence of the catarrhal inflammation of the tubes, is the considerable enlargement and textural change of the canal, as the author has observed it in all his cases in which a post-mortem examination was made; also in unimpregnated women Prof. Martin has observed this affection; it was then the consequence of a metritis produced by a gonorrhœal infection; after the painfulness of the vaginal por-

tion had disappeared, and nothing remained but a muco-purulent discharge, a lively pain was again felt in the depth of one or the other inguinal regions (without there being any swelling of the adjacent ovary perceptible;) this pain was increased on pressure; it generally yielded to the application of leeches, cataplasms, and tincture of iodine. As adhesions of the tubes to neighboring organs are a post-mortem appearance, frequently found in prostitutes, there is good reason to assume that salpingitis often occurs in consequence of sexual excitement, particularly if the latter is combined with infection.

As regards the symptoms of metrosalpingitis, the principal one, in the acute form of the disease, is pain; this is of pretty intense character, and is felt in both inguinal regions, if the disease exits on both sides, as it usually does. The seat of the pain offers the principal reasons for suspecting the presence of the disease, and, by resorting to the method of exclusion, this diagnosis may be rendered more probable. Sometimes it is possible to feel on external, but particularly on internal exploration, the swelled and enlarged tubes in the form of oblong rolls. The disease under consideration requires, however, during the first days of confinement, the greatest precatuion in making palpation, as each strong pressure is connected with the danger of effusion taking place into the peritoneal cavity; it is, therefore, often necessary to be satisfied, under these circumstances, with an only conjectural diagnosis.

The prognosis of metrosalpingitis in lying-in women is not unfavorable as long as the products of inflammation remain in the cavity of the tube, as a part of them may be removed by absorption, while the rest becomes concrete; there are also, in the generality of cases, adhesions formed between the respective tube and the neighboring organs. Both these changes are generally followed by sterility. In connection with this subject, it is well not to overlook the possibility of the products of exudation undergoing tubercular degeneration; in fact, tubercular masses are more frequently met with in the Fallopian tubes, than in any other part of the female organs of generation. Sometimes, when the abdominal opening of the tube has been closed by adhesions, dropsy of the tube follows. With all this, life may continue for a long time, although it may be accompanied by various troubles, arising principally from the incurable changes of form and position which the internal genitals have been subjected to. Sometimes, finally, after the dilated tube has formed adhesions with the abdominal parietes, its secretion may be discharged externally, and thus health may be restored to some degree. If the contents of the dilated tube are effused into the peritoneal cavity, the preservation of life seems to be possible only when the secretion is not of a puru-

lent, but of a mucous character, and when the consequent peritonitis remains confined to a certain locality. Of this, the author has convinced himself in several cases, in which, on the post-mortem examination of individuals who had suffered, many years before their death, from puerperal peritonitis, membranous adhesions of the tube and of the ovary were found confined to only one-half of the cavity of the pelvis.

The treatment of metrosalpingitis in lying-in patients must be antiphlogistic; the principal condition for recovery is, of course, long-continued rest in one position, and the avoidance of every movement requiring exertion.—(*Monatschrift für Geburtskunde*, and *North Amer. Medico Chir. Review.*

EDITORIAL AND MISCELLANEOUS.

Action of Quinine.—In a series of Clinical Lectures on the Pathology and treatment of Dysentery, delivered at Jackson Street Hospital, to the Medical Class of 1857–8, and published in our 14th volume, the Junior Editor of this Journal, stated distinctly the proposition that, "*Quinine exercises its primary action upon the middle or fibrinous coat of the Bloodvessels, and that upon its influence in that tissue, all its observed effects depend.*" The essay from which we make the following extract, is too lengthy for publication entire, at the present time; we therefore furnish to our readers, the several propositions which have been argued in full, and strengthened both, by illustrative experiments and clinical observations as set forth in the paper itself.

Quinine.—*The Fibrinous Coat of the Bloodvessls—the seat of its ultimate Therapeutical action.* By Robert Campbell, M. D., of Augusta, Georgia.

The following Propositions form the basis of an essay presented by us to the Medical Society of the State of Georgia, April 10th, 1859, and ordered for publication.

PROPOSITIONS.

1st. That Quinine does *not* act *primarily* upon the Nervous System.

2nd. That its effects upon the Nervous System are *neither* those of a *Stimulant* nor *Sedative.*

3rd. That its manifest, uniform phenomena are at variance in character with those of any known neurotic.

4th. That there is no concordance between the degree of its *apparent* influence over the *Nervous* System, and the size of the dose—as obtains with all neurotics.

5th. That its phenomena are varied in character and degree, more in accordance with an associate condition of the *vascular*, than of the nervous system.

6th. That its action is *primarily* exerted upon the Vascular System, by a specific agency directed to the *fibrinous* coat of the vessels, and having the power of condensing or contracting that tissue—probably by chemical union with its elements, similar to that of the vegetable astringents. By virtue of this property, it overcomes all engorgements of the vascular system—*by constringing the vessels.* Thus, it relieves entirely or partially, all those diseases which depend upon engorgement, resulting from vascular exhaustion or debility, such as would proceed from relaxation in the middle coat—whether occurring in a vascular organ, as Lung, Spleen, or Liver—or in a nervous centre, as Brain, Spinal Marrow, or Ganglion.

7th. That this interpretation is the only one which can furnish a satisfactory explanation of the phenomena consequent upon the administration of Quinine.

Forthcoming Medical Work.—We are pleased to see by the following announcement, that our whilom contributor, Dr. John Stainback Wilson, of Columbus, Ga., is engaged in the preparation of a useful work. From the present notice it appears, that the book is to present a popular, as well as a professional aspect. We are too well acquainted with the high principles which control our valued and able correspondent, to have the least fear that he will compromise himself or his profession in any particular, even under the most trying and delicate circumstances. Without seeing a line of his manuscript, we cordially wish him abundant success:

"*Woman's Home Book of Health.*—As our previous notice of the work in preparation by Dr. Wilson, of this county, has been quite extensively copied by the press, and as many may have been led into the belief that the work will consist of a mere compilation of the articles on Hygiene furnished by Dr. W. for the Ladies' Book, we give the title in full: 'Woman's Home Book of Health: A work for Mothers and Daughters; on a Plan, New, Safe and Efficient, showing in plain language how diseases may be Prevented and Cured, without the Use of dangerous remedies: Embracing, First: A brief Description of the Structure and Functions of the Human Body. Second: A full Exposition of the Laws of Health and the Means of Preventing Disease. Third: The Causes, Symptoms and Treatment of the principal Diseases of Women. Fourth: Midwifery, and the Diseases and Accidents of Childbed, &c. &c. With a Chapter on the Management of Infants.' It will thus be seen that the work will be quite comprehensive; and as just such a book as this is much needed, and as the announcement of its forthcoming has

met with the most flattering reception in various quarters, we predict for it decided success, and hope that it will not be long before its publication."

Journal de la Physiologie de l'Homme et des Animaux, Published under the direction of Dr. E. Brown-Sequard.

The first volume of this valuable Journal, is just completed, and the four numbers of last year make an elegant and most instructive book of 850 octavo pages.

No one perhaps, but Dr. Brown-Sequard could have projected or so well sustained an enterprise, at once so novel, and seemingly so forlorn, as that of a Journal devoted in the present age, we may say entirely, to Physiology. His energy, great experimental resources, and his wide spread reputation on the two continents, have contributed largely to secure for this Journal an abundant success. Almost every number of the volume just closed, is enriched by lengthy papers from the pen of the able and indefatigable editor, while such men as Dr. Claude Bernard, Dr. Charles Robin, Dr. Charles Rouget, M. Ollier, and others of nearly equal reputation, discuss in profound and lengthy communications, all of the most interesting and obscure Physiological Questions, of the present rapidly advancing age. The Secretions, the Nervous System, the Blood, the regeneration of Tissues—deep questions in Pathology; indeed every thing relating to Biological Science, find place in the pages of this splendid work. Books are not the places to read and *keep up* with any department of science. The knowledge of books is always at least one or two years old, it has nearly all been put forth in journals, and *The Journals* are really the true source for a progressive man in this progressive age, to go and seek his knowledge. Otherwise, when he has just risen from the perusal of the very latest and newest leather-bound work, in some particular department, congratulating himself that he has reached the utmost boundary of the researches about which it is conversant, he will find himself, but only on the frontier, that a large country stretches out before him, which has been cleared, leveled, and builded on, even while he was toiling through the ponderous tome. All this is done in *journals*. Journals are the true chroniclers of Science as they profess to be. Is it not a wonder, that not until now, with all the rapid advancement made in the department of Physiology and Pathology, no well sustained journal has had place in Medical Literature? Perhaps it is best that it has been so; several failures might have settled the impracticability of the work and have discouraged even the energy and daring enterprize which has now, so ably entered upon it.

To those of our readers who have not subscribed to the first volume, we now say that, at this moment, they have an opportunity of subscribing for the second, just opening with the initial number. The work is published in Paris, but for the convenience of American subscribers, an American Agent has been appointed in New York, who will promptly attend to the regular transmission of the work. Messrs. B. Westermann & Co., 440 Broadway, New York, are the American Agents.

Removals, Changes and Demises.

A full history of the changes in the Journal Literature of our country, would occupy far more space than we can afford, yet we deem it a duty to our readers as well as a proper courtesy to our *Confrerês*, to record all important changes which they sustain during the year.

We have already noticed the change in the *New Jersey Medical and Surgical Reporter*, from a Monthly Journal, edited in Burlington, N. J., to a Weekly, and its transfer to Philadelphia. Dr. S. W. Butler, its Senior Editor, has associated with him, Dr. R. J. Levis, of Philadelphia. The Reporter has been entirely metamorphosed in its appearance, much improved in its matter, and doubtless increased in its circulation and general prosperity.

Our valued confreré, Dr. Austin Flint, Jr., has removed to New York city. He still retains the Editor-ship of the *Buffalo Medical and Surgical Journal*, whose second number of Volume XV., comes to us under the lengthened title of *The New York Monthly Review of Medical and Surgical Science, and Buffalo Medical Journal.*

We suppose that this rather inconveniently long title, is but a temporary expedient resorted to, to retain old associations under the change of place, and will be continued no longer than necessary to a general understanding among its readers. This Journal has always been a favorite with us. We wish it the same abundant success under the above change, that it has heretofore enjoyed and deserved, under the more simple and familiar name of *Buffalo Medical Journal.*

The Savannah Journal of Medicine, is now conducted by our Friend Prof. Juriah Harriss, as Senior Editor; Dr. J. S. Sullivan having resigned that position, held by him for the last two years. In making the announcement, the present Editor remarks, "Our association as Junior Editor with him, has been most cordial and friendly, indeed such intercourse as a gentleman of high tone and intelligence, will ever guarantee to others in the Profession." Prof. R. D. Arnold will continue as Associate Editor of the Journal, while Dr. Sullivan is promised, as still a contributor to its pages.

The Nashville Monthly Record of Medical and Physical Science, has also undergone a change in a part of its editorial corps. Dr. Richard O. Currey has resigned his position of Associate Editor, while Prof. Daniel F. Wright will be hereafter assisted by Professors John H. Callender and Thomas L. Maddin, all of the Shelby Medical College. Professor Currey's resignation from the Journal is simultaneous with, and perhaps, consequent upon his resignation of the chair of Chemistry in Shelby Medical College.

The vacancy left by his resignation, has been filled by the appointment of Dr. Henry Erni to the chair. The above multiplication of laborers and division of labor, will doubtless add much to the usefulness of this already, valuable Journal.

The Chicago Medical Journal has, during the past year, undergone several changes. Its January and February numbers present the names of Drs. N. S. Davis and W. H. Byford, both of the Rush Medical College. In the March number, we find that the Journal is again conducted by its former able Editor, Professor Daniel Brainard, Professor of Surgery in Rush Medical College, and the same issue imforms us of the resignation of Professors Davis and Byford, not only from the Journal, but in company with Professor Johnson, from their places in the Faculty also. The June number is impressed with the name of Dr. Edward Powell, Demonstrator of Anatomy in Rush Medical College, as assistant to Dr. Brainard. While we deeply regret the loss of Drs. Davis and Byford, we cordially welcome Dr. Brainard and Dr. Powell, into the ranks of our fraternity.

We regret to say that we have to record this *discontinuance* of several Journals, some of which have been valued exchanges for many years, others, of but more recent date.

The Medical Chronicle of Montreal, the only Medical Journal of the Canadas, has been abandoned by its able and heretofore indefatigable Editors, Drs. Wright and McCallum, for the want of support. Readers, money, or enthusiasm must be at a low ebb in the Provinces, that a single journal, and one so useful and ably conducted as the Chronicle, could not be supported in all that region. Although we have thus lost Drs. Wright and McCallum from our exchange list, we feel assured that the profession will still receive the benefit of their contributions through some other and more widely circulated and better sustained medium.

The Maine Medical and Surgical Reporter. This Journal begun in March of the present year, under the Editorial management and pro-

prietorship of Drs. W. R. Richardson and R. W. Cummings. We regret to say, that after a continuance of not quite a year, marked by decided ability in its editorial conduct, it has been obliged to suspend for want of patronage. "'Tis not in mortals to *command* success;—they can do more, *deserve* it."

The Philadelphia Medical and Surgical Journal, and *The Louisville Medical Gazette*, are each suspended, very properly and justly disheartened that faithful, long and arduous labors, brought no adequate reward. We record these obituaries, one and all, with sadness of heart, and with a regret as in parting with old and much prized friends.

Nil Desperandum!—Let retiring and disheartened laborers from any Literary field, remember; that they have not energized in an entirely barren soil, nor made their painful record in the shifting sand;—far from it. The result of their many years of hard toil, their "much study," their "weariness of the flesh," will still remain in the libraries and on the bookshelves of thousands of appreciating and admiring readers, who will still, in years to come, resort to them as valuable store-houses, whence to draw treasures of counsel and instruction. Obelisks of Granite, of Marble, and of Brass, endure through long ages, and, in their sphynxine mystery, puzzle the beholders, generation after generation. Temples, Porticos, Pillars, and Pyramids, are scarcely more than grand, crumbling enigmas, but half revealing the splendor and magnificence of mighty nations, long melted into the mould on which they proudly stood. But the *written page must still endure.* That magnificent record of God's will and man's inspiration, our Holy Bible, the Homer of antiquity, mythic and sacred through the long ages of their endurance, but grow brighter with each succeeding decade. How much longer do they last,—how much more plainly do they speak! Words are but breath—written language but ink intelligibly spread—paper and parchment are more perishable far, than even man himself—but oh, consoling thought, most comforting reflection! *The Ideas* which these words enwrap and which the ink and the paper chronicle, shall last forever—for mind is more enduring than adamant, more permanent than brass, and lasting as the everlasting hills.

Medical and Literary Weekly.—We have received the several numbers of this well conducted periodical which began its existence early in May last. The professed object of the work is certainly a very laudable one, viz: the extension and diffusion of medical knowledge, and correct medical ideas *among the people* and the discountenancing

of quackery. Each number contains a considerable amount of Medical and Scientific matter, such as is found in strictly Medical Journals, and which will be of interest to medical readers—but in addition to this, a large portion of the paper is devoted to polite literature and popular reading. We have noted the title of the Medical and Literary Weekly, upon our exchange list and wish its enterprising editors a full measure of success.

The work is published weekly in the city of Atlanta, and edited by V. H. Taliaferro, M. D., and A. G. Thomas, M. D. Price $2.00 per annum.

"Here a Little and There a Little."—We have several times, in pleasant terms, called attention to the financial matters of this Journal. At each time, we have with pleasure acknowledged, that few periodicals can rejoice in a more promptly paying subscription list than our own. Each month, until recently, a long list of "credits" met our eye, and gratified our hearts, convincing us that our own labors are appreciated, and that our worthy Publisher, upon whom fall the entire pecuniary responsibility, and the most arduous toil, is not only "a laborer worthy of his hire," but that, *that* "*hire*" is, upon a fair average, promptly rendered over. For some months past, however, these payments have lessened, to an amount quite inconvenient to him and rather discouraging to us. The toil and the labor continue unabated, but the *reward and the yield* of labor begin to wax low. Can it be that our "honeyed hints" are failing to entice "the flies?" And must we in despair, abandon our patent gentle method, for the more distasteful "vinegar" of actual dunning? With the July number, all unpaid accounts have been submitted to subscribers—some have responded and many have not. We now call attention to these missiles, and earnestly request, on behalf of our Publisher, a full and early response. "Here a little and there a little," either in losses or in gains are, individually, unimportant, but in the aggregate, they often either sustain or embarrass the most magnificent enterprises. Let our "little and little" be on the side of receipts, and from what we know of the liberality of our Publisher, each succeeding year will only mark a steady advancement as heretofore, in the size, beauty, and value of this Journal.

In a town of Wurtemburg, a Mr. Helgerad has established, with most perfect success, a printing house, which is carried on solely by 160 deaf and dumb individuals.—[*Cincinnati Lancet and Observer.*

Dr. Silas Durkee, of Boston, will bring out shortly, through Mr. Jewett, his publisher, a work on Gonorrhœa and Syphilis.—[*Ibid.*

A New Instrument for Vesico-Vaginal Fistula. By H. F. Campbell, M. D., of Augusta, Ga.—We have recently devised a pair of Forceps to facilitate the paring of the edges of the Fistula in the above operation. The principle applied, is that used by Civiale, and other Lithotritists in the construction of the Stone-Crusher; viz. the *Shoemaker's measure.* Messrs. Tiemann & Co., of New York, have made the Instrument for us, and we hope to present a clear wood cut of it and a detailed account of several successful operations in the September number of this Journal. Let the present notice be our *compte rendu.*

Augusta, Ga, July 16th, 1859.

Tannin in Large Doses in Albuminous Anasarca.—In an interesting memoir published in the Archives of Medicine, Dr. Garnier calls the attention of practitioners to the use of tannin in large doses, in the treatment of albuminous anasarca. In three cases which he reports, and which he has compared with analogous observations taken from several authentic records, Dr. Garnier employed with success the following formula:

℞. Acid tannic, - - - - gr. xxxij.
Aquæ distil. - - - - ℥j.
Syr. cinchon. - - - - ℥j.

M.—S. a teaspoonful three times a day.

Dr. Garnier arrives at the following conclusions:—Tannin in doses of from thirty to sixty grains a day will cure anasarca or œdema passively developed and coincident with albuminous urine. Its curative action manifests itself by an abundance of urine, which gradually assumes its physiological character; by the cutaneous transpiration; by the easy alvine evacuations; by the apetite, etc. These favorable signs appear on the second day after the administration of tannin.—[*L' Union Medicale*, and *Jour. of Materia Medica.*

Citrate of Iron and Strychnia.—Among the numerous contributions of modern chemistry to the materia-medica, we notice in the *American Journal of Pharmacy* a formula for what we are disposed to regard as a valuable preparation of the citrate of iron and strychnia—in the proportions of one of the strychnia to forty of iron. In appearance this salt resembles the citrate of iron, but in taste, besides the peculiar, slightly ferruginous taste of that of salt, it adds a moderate bitterness, due to the strychnia. Three grains is a dose, which may be increased or diminished according to circumstances, and it may be used in chronic nervous affection with debility, also in certain forms of chlorosis, &c. We have used the remedy in one or two cases, but are not prepared at present to pronounce on its merits; but would invite the attention of our readers to it, as it can be obtained from our drug dealers.—[*Jour. of Materia Medica.*

Easy Method of Extracting Foreign Bodies from the Eye.—Dr. Léon Renard, in a note to the editor of the *Union Médicale*, describes the following method of extracting small substances which have become

lodged in the groove formed by the reflection of the conjunctiva from the upper lid to the sclerotic, and which often cannot be seen, even when the lid is inverted. The lid being seized at its angles between the thumb and forefinger of each hand, is to be gently drawn forward and downward, as far as possible, over the lower lid, and retained there for about a minute. On allowing the upper lid to return to its normal position, the flow of tears will carry off the foreign body, which will usually be found on the lower lid, or one of the lashes, or on the cheek. The writer states that he has often found this simple method of the greatest utility and convenience.—[*Boston Med. and Surg. Journal.*

Homœopathy not a Science—of course not.—The great medical suit which has recently been decided in Paris, in which homœopathy was arraigned against the regular profession, after a full hearing, has gone against the infinitesimal gentry. The case was simply, the editor of the Union Medicale, sometime since, stigmatized homœopathy as a *pretended science*, and its professors as *charlatans*. Whereupon twenty-four homœopathic practitioners of Paris brought an action against the editor for libel. The trial involved the truth or falsity of the charge, and after a hearing of several days, the Court dismissed the action, and mulcted the homœopaths with the costs for their trouble. So that, according to the decision of the French Court, homœopathy is not a science, any more than any other tom-foolery of the age.—[*St. Louis Med. and Surg. Jour.*

Dr. Thomas W. Evans, of Paris, having made application to the Sardinian Government in regard to the medical and surgical wants of the Sardinian army, in view of the employment of American surgeons, the Minister of that government has responded to the effect, that while government appreciates the good feeling that prompted the offer on the part of the American surgeons, the wants of the Sardinian army are, for the present, supplied.—[*Med. and Surg. Reporter.*

The Woman who lives without Eating."—There is no absurdity too great, no imposition too barefaced, no deceit too often exposed, for human credulity. The possession of the highest intellectual powers is no absolute protection against imposition. Men *will* be cheated. The more difficult a thing is to be believed, the more readily some people believe it. *Credo quia impossibile est.* When rational and sensible men (so considered) believe that a grain of charcoal—so infinitessimally divided that each individual of the human race could be supplied daily for ages with a portion—is capable of producing appreciable specific effects on the system, or that the spirits of the departed can and will communicate with surviving friends through the medium of ignorant and cunning men and women, who make a trade of their pretended powers, what more need we say on the subject? An illustration of this truth is shown in the story of Mrs. Hayes, who succeeded in making many people believe that she lived two years without eating, and without having an evacuation of the bowels or of the bladder. One of our correspondents paid a visit to this woman, and came away a firm believer in her pretensions. Another correspondent has sent us an elaborate article, explaining the

phenomena on physiological grounds, and making it quite plain that a human being might live two years without eating, and without fæcal or urinary evacuations. Unfortunately for his ingenious theory, the fact it was intended to explain has been proved not to exist. On being watched, Mrs. Hayes was discovered regaling herself on crackers and beef! There is nothing very unusual in all this. Every physician has met with similar cases of attempted imposition by hysterical females; and the only remarkable thing about it is, that so many medical men should be deceived by a very common trick. Strange as it is, however, they will be deceived by it, again and again; and this natural susceptibility of human nature to imposture ought to make us charitable in our judgment of the frailties of others, not knowing when we ourselves may become the victims of delusion.—[*Boston Med. and Surg. Jour.*

Conviction of an Abortionist.—The second trial of the notorious Dr. David R. Brown has been brought to a close by a verdict of manslaughter. There is evidently a reluctance on the part of juries to convict in cases like this, where the offence is so very common. Either Dr. Brown was guilty of murder, or was innocent even of manslaughter. If he was justified in procuring an abortion, on account of the condition of the patient, or if she died in consequence of abortion supervening upon treatment intended for a different purpose, he ought clearly to be acquitted. If he attempted to procure abortion illegally, and the woman's death was the result, it is equally clear that he ought to have been convicted of murder. Under the present state of feeling on the subject, it strikes us that it would be almost worth while to mitigate the severity of the penalty, rather than allow so many criminals to escape scot free, as the majority do. When the penalty for forgery was death, in England, it was almost impossible to obtain convictions, and the crime became exceedingly common. As soon as the punishment was changed to imprisonment, forgeries were of more rare occurrence. We would suggest the propriety of changing the penalty for procuring abortion, from death to imprisonment for life.—[*Ibid.*

Marking Papers.—The Postmaster General decides that a pen or pencil mark, made for the sole purpose of attracting the eye to a particular article or portion of printed matter, does not subject matter to *letter* postage, as insisted on by *some* Postmasters.

A King Fetching the Doctor.—A few days ago, says a Munich letter, a female fainted in one of the streets of this city. An elderly gentleman, who approached the spot where she was lying, requested some of the persons present to go and fetch a medical man. They all replied that they knew not where to find one. "Well, then, (he said,) I will go myself." And in a few minutes he returned with a doctor, who applied the proper remedies. The kind-hearted old gentleman was King Louis of Bavaria.

We learn that Dr. Alfred Stillé has resigned the Chair of Practice in the Medical Department of Pennsylvania College, which he has filled with such distinguished honor to himself and advantage to the school.