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THE CANADA MEDICAL RECORD.

VOL. XI. MONTREAL, AUGUST, 1882 No. 11

CONTENTS.

Original Communications.

SANTA BARBARA, CALIFORNIA, AS A HEALTH RESORT.

BY WOLFRED NELSON, C.M., M.D.

For all seeking a dry, pleasant winter climate, either for health or pleasure, Santa Barbara, California, can be warmly and confidently recommended. Public attention has been particularly drawn towares this sanitarium for several years past, both for health, pleasure and residence.

Santa Barbara lies two hundred and eighty miles southeast of San Francisco, and can be reached in thirty-six hours by steamer, sailing from the latter city every three days, or by the Southern Pacific Railroad daily to Newhall, and thence by stage to Santa Barbara, occupying some fifty-two hours. Very soon Santa Barbara will have an all-rail route of its own direct to San Francisco, greatly economizing expense and time.

Its situation on the coast makes it the best known of all the California seaside resorts. The city is laid out on a slope, extending back from its magnificent beach, the finest in all California, to the coast range of mountains—the latter gracefully surround this subtropical sanitarium, and exercise their kindly offices in depriving the chilling winds of the desert of their moisture so prejudicial to many people, and reach the city in dry gentle currents. One may safely say that two-thirds of the city is surrounded by mountain, hill and dale—and within this natural amphitheatre nestles this charming resort. The grand old Pacific completes its surroundings. Such is the *locale* of the city, where one can enjoy the advantages of city life and the healthier pleasures of the country.

Nor is Santa Barbara void of a spice of the historic and ancient. The traveller familiar with Moorish architecture, at once notes the old Mission Church, of a purely Spanish style of architecture, now dating back nearly a century—telling its own tale of Mexican descent. The city itself may be said to be "ancient and modern," not particularly of the High Church stripe, but a happy medium of both, taken in either sense. The city is noted for its pleasant and highly intellectual society. It being the home of families from Europe, the United States, Canada, etc.—people of easy means who have selected it for its natural beauties and healthful atmosphere. Santa Barbara is rich in natural charms, the beauty of its scenery being varied by mountain, ocean, hill and dale.

The beach of Santa Barbara is easily reached in a few minutes from the hotel by car. It deserves special mention; along it one can walk or drive for miles or sit lost in "sweet meditation" or watch the never-ceasing waves of the broad Pacific as they roll in, often freighted with beautiful shells and the most delicate of marine mosses, all the while inspiring the health-giving air. Others of a

more matter-of-fact turn of mind can drive, fish, etc., shoot or botanize to their hearts' content. If their souls be utterly dead to all this good cheer, they can stay at the Hotel, read, eat, grumble, and make themselves as disagreeable as they please. This always being the peculiar province and privilege of the traveller.

Santa Barbara has done wonders for legions of people suffering from the curse of our modern civilization—lung affections. Thousands are living to-day in California and elsewhere, who owe their extended lives solely to its climate. Many, alas, wait *too long* ere starting for California. *Such should stay at home.* Its soft balmy atmosphere, and agreeable temperature, is a curative agent in itself.

Those seeking relief from, and with a hereditary tendency to, lung troubles, after consulting their physicians should visit it early, when all will conspire to benefit them—change of scene, new faces, new thoughts, all divert the sick and tired, and furnish that best of hygienic medicines, *distraction.* Gently, and almost imperceptibly, many such are soon brought back to health. The appetite improves, a little color is seen in the once pallid cheek. A new vigor is infused into the body, making it susceptible of greater exertion, hence refreshing slumber, with the better appetite and the constantly increasing strength; finally comes the gain in flesh—and presto, they " throw physic to the dogs" (why this is done the writer cannot say, as in an extensive practice he has yet to learn that the latter take it, they considering it a gratuitous charity and impertinence)—and rightly give the credit to the climate.

No one climate is suitable for all classes of cases —a few weeks' residence will enable the visitor to judge of the climate, and its suitability to his or her case. If not agreeable and a drier climate is necessary, they can drive to the healthful valley of the Ojai near Santa Barbara, where they can live, eat and sleep out of doors, without any cover over them, but the canopy of the heavens, with safety and benefit. A friend of the writer's, in speaking of the benefit that he had received from the mountain air, for lung trouble, fittingly described it by saying, "it actually tasted good." Quite a number from the Isthmus have already, under my advice, visited Santa Barbara. The sick and delicate to gain health and strength, the weak and debilitated by long residence in the hot and humid Tropics, to reinvigorate their worn and relaxed bodies. Of these, one and all write back warmly —nay, some affectionately, of what the climate of California has done for them. Several families sent there for health have decided to settle. Their actions speaking louder than their words.

The visitor to Santa Barbara will find excellent hotels and boarding houses. The leading hotel, and that best situated for those seeking health or pleasure, is the Arlington, one of the largest and best-managed Hotels in Southern California.

PANAMA, July 27th, 1882.

Correspondence.

To the Editors of THE CANADA MEDICAL RECORD.

In your last July issue, page 238, you provide your readers with some remarks and quotations regarding the everlasting *bugbear* of " consultations with Homœopaths."

You mention the fact of the Medical Society of the State of New York having framed and adopted a new code of ethics, "*permitting free consultations with competent practitioners of any school.*"

You say that this action met with the almost unanimous opposition and repudiation of the Medical Societies of other States of the Union. This likewise extended to the name of *Allopath,* because it was *untrue* and obnoxious, etc.

The Medical Societies of the other States made a declaration of principles, too, beginning with; " Rational medicine, being based upon experience and pathological research, demands absolute freedom in the selection and administration of materia medica, and that there is nothing in its code of ethics prohibiting the use by its members of any known and *honorable* means of combating disease and as a means of alleviating human suffering, and we hail with pleasure and gratitude every discovery in etiological and therapeutical science, by whomsoever made."

One would think that such a declaration would permit of unlimited consultations and intercourse " with competent practitioners of any school," just as the Medical Society of the State of New York desired. Why, then, do the Medical Societies of other States condemn the New York code—I would like to know? Let us see what more they say.

The American Medical Association say :—" We

therefore reject as untrue and obnoxious the term "*Allopathists*," as applied to the members of this association *by dogmatists* and *extremists* without its fold."

First reason—"Because it tends to convey the erroneous impression that we are restricted to the choice of remedies and the method of using them by other than the limits of *rational* science."

Second reason—"Because for any association of men, claiming to practice the profession of medicine, to adopt a name based upon *limited* and *conjectured* theories of therapeutics, for the purpose of designating a particular school of medicine, we have always held, and still regard, as unscientific in principle and dangerous in practice."

Now, gentlemen, does not the animus thus lurking under the *first* and *second* because, explain in some measure the condemnation of the New York code? "The hailing with gratitude every discovery in therapeutical science, by whomsoever made," surely could not induce the condemnation of the New York code.

"Rational medicine, based upon experience and pathological research" surely could not do it, then what evidence have we as a reason for the condemnation? Answer.—Because some "*dogmatists* and *extremists*, and associations of men, practice medicine based upon conjectured theories of therapeutics, have called them "*Allopaths*" !!! Big *reason* certainly. The term *Allopath* must partake of the power of dynamite; what is its meaning? "A mode of medical practice which cures diseases by producing a condition of the system opposite to that essential to the disease." Does the American Medical Association not act on this mode of practice. If it does, why get vexed; why is the term *untrue* and *obnoxious?* If it does not, then what is the "*rational medicine*" which it esteems. Let the American Medical Association, or any other, give cases to show what "*rational*" medicine consists of. Give us the therapeutic treatment of bronchitis, pneumonia, diarrhœa, dysentery, cystitis, peritonitis, etc., etc. According to their *rational method* let us have these clearly given, and we shall know, independently of codes of ethics, whether the term *Allopath* or *Homœopath* is a correct designation for this mode of treatment. People when they are sick in these days require to know, whether they are to be treated the one way or the other, because if the American Association hold Homœopathy to be "*conjectured theories of therapeutics*, alike *unscientific* and *dangerous*," they cannot hail it with pleasure, as others do. No, it would be more consistent in them to repudiate that therapeutic science and give to it dishonorable epithets. Although they declare that they would "not prohibit their members from using anyknown and honorable means of combating disease," *similia similibus curentur* would never be that honorable means,' seemingly. The way in my opinion to bring about a *rational* mode of consultation, other than for diagnosis and assistance in actual surgical operations, would be that the "*regular*" profession should study and test clinical Homœopathic therapeutics, "*based upon experience and pathological research*," thereby finding out the *modus operandi* of *specifics*. This should first be done by those who assume the cognomen of *regulars*; and in the meantime, while doing that, calm discussions should be permitted in your journals for the sole object of arriving at the truth, for its own sake, and not for individual and collective interest. Doubtless good would come of this.

Yours truly,

JOHN WANLESS, M.D.

Progress of Medical Science.

THE ANALYTICAL STUDY OF AUSCULTATION AND PERCUSSION.

By AUSTIN FLINT, M.D., N.Y.

[Though this paper was read in August last, before the International Medical Congress, and will yet appear in its Transactions, still, as few will see that volume, and few have carefully studied the interesting subject herein analyzed, the paper is presented, with great pleasure, to the readers of this Journal.—E. S. G.)

An offering of homage to the memory of Laennec is a fitting introduction to a paper having for its aim promotion of our knowledge of physical diagnosis.

Laennec was not the first to listen for intrathoracic sounds. Mention is made in the writings of Hippocrates of at least one auscultatory physical sign; and the prophetic intimation of Robert Hook, in 1705, has been often quoted.* Doubtless hundreds, before the time of Laennec, had applied the ear to the thorax, and heard pulmonary as well as cardiac sounds. But it was reserved for Laennec to study these sounds in order to discover the physical signs of different diseases, and

* "Who knows but that one may discover the works performed in the several offices and shops of a man's body by the sound they make, and thereby discover what instrument or engine is out of order."

by prosecuting his study to create an important epoch in the history of medicine.

Homage is also due to the author of the work entitled, "A new Method for the Recognition of Internal Diseases of the Chest by the Percussion of this Cavity," which appeared more than half a century before the publication of Laennec's treatise on auscultation. It does not detract from the honor which belongs to Avenbrugger, that an adequate recognition of the value of the method of examination which he originated, followed, and was in a great measure attributable to, the labors of Laennec in behalf of auscultation.

The zeal and the industry as well as the genius of Laennec are evidenced by the accuracy of his descriptions of auscultatory phenomena, and by the fact that the verity of the physical signs which he discovered has, in the main, been confirmed by subsequent observers in all countries. That he should have cultivated this field of study so thoroughly as to gather all the products which it is capable of producing, was not to have been expected. The marvel is that he was able to render it so productive by his own labours during his short life. It is no disparagement to say that he was led into some errors, that this mode of study was in certain respects defective, and that parts of the field were left uncultivated.

Since the time of Laennec much has been added to our knowledge of auscultation and percussion. It must be said, however, that the enlargement of the scope and the increase in the precision of their application to diagnosis, have not been commensurate with the study given to them, and with the space which they have filled in medical literature. A considerable share of the attention which they have received has been directed to the mechanism of physical signs—a highly interesting branch of inquiry, but not essential to the practical utility, and involving much liability to error. The number of signs has by some writers been needlessly increased. There have been over-refinements of description and of interpretation. The nomenclature has been open to criticism. Names have not been used by different writers with uniformity as regards signification. The names applied to some signs have conveyed not merely imperfect but erroneous ideas. Some writers have even designated signs by the names of authors who have described them. Hence it is that the study of auscultation and percussion, and their practical employment in diagnosis, have seemed to involve peculiar difficulties, and to be necessarily restricted to a few practitioners. It is common enough for physicians to say, without any sense of self-reproach, that they do not profess to be adepts in physical diagnosis, and to consider with complacency that it properly belongs to a specialty. As opposed to this view, I claim that by a simple method of study, which, for the sake of distinction, I have called analytical, the characters distinctive of physical signs are rendered clear, precise, and readily appreciable, so that the practical advantages of auscultation and percussion may be made available in diagnosis with a moderate amount of time and attention on the part of the student and the practitioner.

By the analytical method of study, I mean the analysis and comparison of physical signs in respect of the few obvious points of difference by which, practically, musical and other sounds are commonly discriminated. The most important of these points of difference relate to the intensity, the pitch, and the quality of sounds. It is unnecessary to define these terms, except to say that under the name quality I include all the differences in character which are exclusive of pitch and intensity. The innumerable variations embraced under the name quality, as thus defined, may be illustrated by the diversities of the human voice. Of many thousand persons, few, if any, are to be found with voices so alike as not to be distinguishable from each other, aside from differences relating to pitch and intensity. In the study of the signs furnished by auscultation and percussion, the differential points, in addition to those pertaining to intensity, pitch, and quality, are few and easily appreciated. They relate to apparent distance from, or nearness to, the ear, moisture or dryness, the rhythmical succession and the interruption of the continuity of sounds.

It is to be assumed that morbid physical signs represent morbid physical conditions, and not diseases—that is, they are diagnostic of the latter only in so far as the physical conditions which they represent are characteristic of particular diseases. It is also to be assumed that the sole reliable basis of our knowledge of the significance of the signs is experience. Certain morbid signs denote particular abnormal morbid conditions, because the former are found to be constantly associated with the latter. The only solid foundation of the knowledge which underlies the practical application to diagnosis of auscultation and percussion, therefore, is in clinical and autopsical observations. It is, of course, desirable to ascertain the mechanism of the signs, but it is by no means a *sine qua non* in order to establish their validity. For example, is the so-called bronchial respiration due to consonance, according to the theory of Skoda; or is it produced by the current of air within the bronchial tubes, as held by Laennec; or is it the laryngo-tracheal respiration conducted by solidified lung? These questions need not be answered in order to appreciate the significance of the sign, or to recognize it by means of its distinctive characters. To infer from the acoustic characters of signs that, according to the laws of physics, certain morbid conditions must exist, or, on the other hand, to determine *a priori* the signs which should be represented by certain conditions, has proved, and will continue to prove, a source of fallacies. The endeavor to make the laws of acoustics the basis of the clinical significance of physical signs, has tended, as it seems to me, to retard not a little the advancement and diffusion of the practical knowledge of auscultation and percussion. Basing

the significance of signs on experience, the analytical method of study protects against fallacies which must occur if it be assumed that the abnormal sounds contain intrinsic evidence of the nature of the physical conditions which they represent, or if it be considered indispensable to ascertain fully the mechanism of signs. By attempting to deduce the significance of sounds from their acoustic characters, the play of the imagination and the bias of preconceived notions cannot fail to lead to error.

It is a trite statement that the point of departure for the study of morbid physical signs is the study of healthy signs, inasmuch as the former are either deviations from, or additions to, the latter. But it may not be amiss to state, as a conclusion resulting from an experience of more than a quarter of a century in practical teaching, that neglect of a proper study of healthy signs is the secret of the failure of many who undertake to master auscultation and percussion. Moreover, knowledge of the characters of the more important, and the most difficult to master, of the morbid respiratory and vocal signs, is already obtained when a thorough study has been made of the sounds produced by respiration and the voice over the larynx and trachea, over an area on the chest corresponding to the primary and secondary bronchi, and over the remainder of the thorax.

Proceeding, after these preliminary remarks, to consider the physical signs furnished by auscultation and percussion as determined and differentiated by analytical study, a natural division of the auscultatory signs is referable to: 1st, respiration; 2nd, the loud voice and speech; and 3rd, the whispered voice and speech. Having considered the signs belonging to these divisions, it will remain to consider the signs produced by percussion.

SIGNS REFERABLE TO RESPIRATION.

The number of morbid respiratory signs which require nicety of discrimination is not large. They are among the signs grouped as abnormal modifications of the normal sounds. The adventitious sounds or rales are readily discriminated. The chief cause of confusion and difficulty, as regards the latter signs, has been a needless redundancy of them. The list need not extend beyond the crepitant and the sub-crepitant râle, the coarse and fine moist bronchial or bubbling râles, the sibilant and the sonorous dry bronchial râles, pleural friction sounds, gurgling and splashing sounds, amphoric respiration, and metallic tinkling. These signs are readily recognized and differentiated; there is no fault to be found with the names, and the significance of each has been sufficiently established. Of the signs belonging to the group of the abnormal modifications of the normal sounds, suppressed, simply weakened, and interrupted respiratory murmur require no analysis. The remainder of the signs in this group claim analytical study. The latter signs are as follows: 1. Bronchial respiration; 2. Gradatory combinations of the bronchial respiration and the normal respiratory or vesicular murmur, which I include under the name broncho-vesicular respiration; 3. Cavernous, broncho-cavernous, and caverno-vesicular respiration; and 4. Prolonged expiration.

Under the name bronchial respiration, Laennec embraced the normal laryngeal and tracheal respiration, together with the morbid respiratory sign representing solidified lung. He considered them all as essentially identical: and that they are so is easily demonstrated by analysis and comparison. He distinguished the morbid sign from the normal respiratory murmur by the absence of what he called the slight crepitation, which is characteristic of the inspiratory sound in the normal respiratory murmur—the absence, in other words, of its vesicular quality—by dryness, and by a sensory impression as if the air passed into a large empty space. Laennec did not compare auscultatory sounds in respect of pitch. Skoda, Walshe, Barth, and Roger, in the early editions of their works, made mention of pitch in comparing bronchial respiration with the normal respiratory murmur, without apparently attaching to it much importance. With these exceptions, comparisons in respect of pitch had not, so far as I know, entered into the descriptions of respiratory signs by writers in different countries, prior to thirty years ago, when I was led to the analytical study of these signs with special reference to variations in this respect. The results were published in the "Transactions of the American Medical Association" in 1852.* I hope not to incur the charge of having exceeded the bounds of modesty in claiming, by my studies at that time and subsequently, to have established, on the basis of variations in pitch, characters by which these and other respiratory signs may be positively and easily differentiated.

The normal respiratory murmur and the bronchial respiration may be considered as extremes between which are abnormal modifications other than those pertaining to the latter morbid sign. The differential characters of intermediate signs are to be determined by analytical study and comparison with those of the normal respiratory murmur, on the one hand, and, on the other hand, with those of bronchial respiration. As a preliminary step, the normal respiratory murmur and bronchial respiration are to be contrasted in respect of the characters of each as ascertained by analysis.

The inspiratory sound in the normal respiratory murmur is of variable intensity in different persons. Intensity, therefore, does not enter into its characteristics. Its pitch is low, and its quality, for lack of a better term, may be called vesicular. The vesicular quality is *sui generis*. It cannot be

* Prize Essay on Variations of Pitch in Percussion and Respiratory Sounds, and their application to Physical Diagnosis.

described by words, and a distinct apprehension of it cannot be given by any analogy. The expiratory sound is continuous with the inspiratory, in natural breathing; it is still lower in pitch, much shorter, and the quality is neither vesicular not tubular. Its quality may be expressed by calling it a simple blowing sound.

In contrast to these characters of the normal respiratory murmur, the inspiratory sound in bronchial respiration is high in pitch and tubular in quality, its intensity, like that of the inspiratory sound in the normal respiratory murmur, being variable, and therefore not entering into the distinctive characters of the signs. The expiratory sound, separated from the inspiratory sound by a brief interval, is higher in pitch than the inspiratory sound, tubular in quality, usually more intense, and its duration is equal to or longer than that of the inspiratory sound.

Bronchial respiration is the respiratory sign of complete or considerable solidification of lung. Now, between a degree of solidification sufficient to give rise to bronchial respiration and the normal condition of lung, gradations in solidification are involved in different diseases, and in different stages of the progress of certain diseases. Pneumonia and phthisis are familiar examples of diseases involving these gradations. As regards the abnormal modifications of respiration caused by a slight or a moderate degree of solidification, there is not a little vagueness and confusion; the respiratory sounds have been called rude, rough, harsh, sharp and dry. These terms convey not only indefinite but erroneous ideas. As an illustration of incongruity, a cardiac bellows murmur is distinguished as soft, whereas a similar sound produced by respiration would be called rude. Supplementary or puerile respiration is harsher in quality than the sound which represents moderate solidification of lung. A late German author of a work on diagnosis, which has been translated into the English and the French languages, includes, under the name hyper-vesicular, the sign called by others rude, rough, harsh, etc., whereas a distinctive feature of this sign is diminution of the vesicular quality of the inspiratory sound.* The lack of a clear apprehension of the characters distinctive of the sign is implied in the term indeterminate *(unbestiment)* applied to it by Skoda, and still used by German writers.† I have proposed, as already stated, for the sounds representing graduations of solidification of lung falling short of the degree represented by bronchial respiration, the name broncho-vesicular respiration. This term expresses what analysis teaches—namely, a combination of the characters of bronchial respiration with those of the normal respiratory murmur. In broncho-vesicular respiration the inspiratory sound is both vesicular and tubular. The vesicular quality, always less than in healthy, is more or less diminished, and the tubular quality is more or less marked in proportion to the degree of solidification. The pitch is raised in proportion as the tubular quality predominates over the vesicular. The intensity is not important. The pitch, tubular quality, and length of the expiratory sound are in correspondence with the characters of the inspiratory sound. If in the inspiratory sound the vesicular quality predominate over the tubular, the expiratory sound is but little prolonged, its tubularity is not marked, and the pitch is but moderately raised; on the other hand, if in the inspiratory sound the tubular quality predominate over the vesicular the expiratory sound is more prolonged, its tubularity is more marked, and the pitch is higher. According to this description, a broncho-vesicular respiration may approximate closely to the bronchial, the chief distinction consisting in an appreciable vesicular quality in the inspiration; or, it may approximate to the normal respiratory murmur, the distinction consisting in the presence of an appreciable tubular quality. There are gradatory combinations between these extremes as regards the relative proportions of the bronchial and the vesicular characters. As regards the significance of the sign, the solidification is greater in proportion as the characters of the sign approximate to those of bronchial respiration, and the amount of solidification is small in proportion as the characters approximate to those of the normal respiratory murmur. The intermediate gradatory combinations are exemplified during the stage of resolution in acute lobar pneumonia. The practical value of the sign in that connection is obvious. The sign is still more valuable in cases of phthisis and other pulmonary affections which involve slight or moderate degrees of solidification, either diffused or circumscribed. This sign enables the auscultator, not only to recognise the existence and the limits of solidification when not sufficient to give rise to bronchial respiration, but to ascertain whether the solidification be moderate or slight.

The distinctive characters of the broncho-vesicular respiration may be studied by auscultation of the chest in health. It has been customary to apply to the modifications of the respiratory murmur, as heard over the primary and secondary bronchi, the name normal bronchial respiration. This term is a misnomer. The respiratory sounds in this situation are never purely bronchial, but they have the bronchial and the vesicular characters combined. An appropriate name, therefore, is the

* Guttman.

† Guttmann states that as indeterminate respiratory sounds cannot be compared with any other known sounds, it is impossible to describe them. The advantage of the analytical method of study is shown by the facility with which they are described by the characters pertaining to the pitch and quality of the inspiratory and of the expiratory sound. The endeavor to explain the mechanism leads this author into error as regards the significance of the so-called indeterminate sounds. Their significance is rationally understood when it is considered that they are not indeterminate sounds, but sounds intermediate between the normal respiratory murmur and bronchial respiration.

normal broncho-vesicular respiration. I need not add that the characters of this normal broncho-vesicular respiration are more marked on the right than on the left side of the chest; the area within which they are confined being the sternal portion of the infra-clavicular and the upper part of the inter-scapular regions.

Cavernous respiration was described by Laennec as having essentially the characters of bronchial respiration, the only difference being a sensory impression of air entering a large space. Subsequent authors have generally held that these two signs are not to be differentiated by intrinsic differences. Skoda affirms that they are absolutely identical, and in this he is followed by the most recent of German publications. The nearest approach to the characters distinctive of the cavernous respiration is the description of Walshe, in the early as well as the late editions of his work on diseases of the lungs.

The analytical study of respiratory signs led me to recognize well marked and easily-recognizablecharacters distinctive of cavernous respiration as long ago as 1852.*. This sign is to be differentiated, on the one hand, from bronchial respiration, and, on the other hand, from the normal respiratory murmur. The differential characters are as follows: The inspiratory sound, as compared with that of bronchial respiration, is low in pitch and non-tubular; as compared with that of the normal respiratory murmur, it is non-vesicular. It has a simple blowing quality. The expiratory sound differs from that of bronchial respiration in being low in pitch and devoid of tubular quality. The pitch is lower than that of the inspiratory sound. In pitch and quality it resembles the expiratory sound in the normal respiratory murmur. These characters, limited to a circumscribed space, without the boundaries of which is often found either bronchial or broncho-vesicular respiration, are readily appreciated, and they point unmistakeably to the site of a cavity. The characters are so distinctive that the sign cannot be confounded with either bronchial or broncho-vesicular respiration. The liability to error is inconfounding cavernous respiration with simply weakened respiratory murmur, the only essential point of distinction being the presence of vesicular quality in the normal inspiratory sound, and the absence of this quality in the cavernous inspiration; hence, if the respiratory murmur within a circumscribed space be so weak that the vesicular quality is not clearly appreciable, it cannot be distinguished from feeble cavernous respiration. The associated vocal sounds should always prevent this error.

Cavernous respiration is not infrequently modified by solidification of lung surrounding or situated in proximity to cavities. A combination of the bronchial and the cavernous characters is sometimes rendered apparent within a circumscribed area by comparison with a purely bronchial or a broncho-vesicular respiration without the limits of this area. This modification may be distinguished as broncho-cavernous respiration A cavity without adjacent solidification of lung may furnish a cavernous inspiratory sound, combined with more or less of the vesicular quality. This may be distinguished as vesiculo-cavernous respiration. It is recognized by comparison with the respiratory murmur without the limits of a circumscribed area, the latter corresponding to the site of a cavity. The fact of the existence of the cavity may be further established by associated vocal signs.

Other varieties may be mentioned. A cavernous inspiration is sometimes associated with a bronchial expiration. This happens in some cases when lung, completely or considerably solidified is in contract with, or in close proximity to, a cavity. The bronchial inspiration is not heard over the cavity, but the more intense bronchial expiratory sound extends beyond the solidified lung, and displaces, or, more properly speaking, drowns the cavernous expiration over the cavity. In another variety the expiratory sound is at its beginning either bronchial or bronco-vesicular, and it becomes cavernous before its termination. The probable explanation is that air enters the cavity, not at the beginning of the inspiratory act, but before the conclusion of the act; hence, prior to the development of the cavernous respiration the sound represents adjacent solidification of lung*.

As is well known, Laennec gave very little attention to the sounds produced by the expiratory act. A young American physician (James Jackson the younger) was the first to study these sounds, twenty years after the discovery of auscultation. Jackson ascertained the importance of a prolonged expiration, having something of the bronchial character, as a diagnostic sign in the early stage of pulmonary phthisis. The characters which a prolonged expiration may have are of importance when an inspiratory sound is present, but especially so when an inspiratory sound is either wanting or too weak for its characters to be appreciated.

The significance of a prolonged expiration depends on the characters pertaining to pitch and quality. If the pitch be high and the quality tubular, it denotes solidification of lung as if the respiration were completely either bronchial or broncho-vesicular; in other words, as if associated with either a high-pitched tubular or a vesiculo-tubular inspiration. If the pitch be low and the

* *Vide* Essay: "Trans. American Med. Association," 1852.

* Under the name metamorphosing respiratory murmur (*metamorphosirendes Athmungs gerausch*) Seitz has described a variety of broncho-cavernous respiration in which, using his terms, the first part of the respiratory sound is rude, and the latter part bronchial in character. Inasmuch as by German writers the cavernous and the bronchial respiration are considered as identical, the latter part of the resipiratory sound, in the variety described by him, is probably cavernous.

quality non-tubular or simply blowing, it is either a cavernous sign or it denotes delay and hindrance to the free exit of air in the expiratory act, as in cases of emphysema. The prolonged expiration in emphysema is always low and blowing, not high and tubular, at least without the areas in which a normal broncho-vesicular respiration may be present. A prolonged expiration is not a sign of phthisis (exclusive of cavity), unless the pitch be raised and the quality more or less tubular; or, as stated by Jackson, unless it have something of a bronchial character.

I pass by adventitious sounds, simply remarking that my experience corroborates a statement made by Skoda—namely, the pitch of moist bronchial râles, or coarse and fine bubbling, and of the subcrepitant râle, denotes either, on the one hand, solidification around the tubes in which the râles are produced, or, on the other hands, absence of solidification. The pitch is more or less raised when these râles occur in connection with pneumonia, phthisis, or other affection involving solidification. The pitch is not raised when they occur in bronchitis, in pulmonary œdema, or in other morbid conditions which do not involve solidification of lung.

SIGNS REFERABLE TO THE LOUD VOICE AND SPEECH.

The analytical study of transmitted voice-sounds is simpler than that of the respiratory sounds, but not less important with reference to clearness and precision as regards the distinctive characters of vocal signs. Suppression of vocal resonance, and simple diminution of the normal intensity, are signs which do not call for analysis. It is not so with the remaining signs referable to voice and speech—namely, bronchophony, increased vocal resonance, ægophony and pectoriloquy.

Bronchophony, the sign correlative to bronchial respiration, is characterized by concentration of the transmitted voice, nearness to the ear and elevation of pitch, as compared with the diffusion, distance, and lowness of pitch, which are the characteristics of the normal vocal resonance. It is important to note that intensity is not an element of bronchophony; the distinctive characters of this sign may be not less marked with a feeble as with a loud vocal resonance.

An abnormal loudness of the transmitted voice-sounds, without the characteristics of bronchophony—that is, the characters of the normal resonance preserved exclusive of intensity—is to be distinguished as increased vocal resonance. This sign signifies either a degree of solidification falling short of that requisite for bronchophony, or the transmission of a voice through a cavity.* It seems an incongruity, but clinical experience shows it to be true, that a moderate degree of solidification of lung may give rise to more intensity of resonance than a greater degree of solidification, the lesser resonance having the characters of bronchophony, and the greater resonance retaining the characters of the normal resonance exclusive of intensity. A cavity not surrounded by solidified lung may be represented by notable intensity of vocal resonance, but without the bronchophonic characters.

Normal bronchophony is sometimes found within the area in which the respiration may be normally broncho-vesicular. In general, however, within this area—that is, over the primary and secondary bronchi, the resonance is simply more intense than in the other thoracic regions.

The opinion held by Laennec, that pectoriloquy is exclusively a cavernous sign, has long since been disproved. Articulated words, or the speech, in addition to the voice, may be transmitted by solidified lung as well as through a cavity. The characters pertaining to the transmitted voice, associated with the speech, however, enable the auscultator to decide, in individual cases, whether the pectoriloquy be, or be not, a cavernous sign. If pectoriloquy be accompanied by the characters distinctive of bronchophony (nearness to the ear, and elevation of pitch), the transmission is by solidified lung; if, on the other hand, speech be transmitted, and the characters of bronchophony be wanting, the inference is that the pectoriloquy denotes a cavity. Two varieties of pectoriloquy, therefore, may be recognized—namely, bronchophonic and cavernous. This statement conflicts with the opinion of Skoda and others, who hold that pectoriloquy is simply an exaggeration of bronchophony.

I would remark that pectoriloquy, which may be defined the transmission of speech, is often not sharply discriminated by writers on auscultation, as well as by practical auscultators, from bronchophony—the latter being the transmission simply of the voice; and it is evident that the discrimination was not clearly made by Laennec. Laennec seems to have been biased by a desire to establish pectoriloquy as exclusively a cavernous sign. That pectoriloquy is entitled to be considered as a sign distinct from bronchophony is shown by the fact that it may exist without any of the characters of the latter. Under circumstances, in accordance with what has been stated, it is always a cavernous sign.

To the vocal sign called ægophony, Laennec in his treatise on auscultation, devoted more space than to any other physical sign; and perhaps there is no sign which has been more discussed than this by subsequent writers, although it is a sign of comparatively small practical importance, inasmuch as other well marked and readily available signs suffice for the diagnosis of pleural effusion. Laennec confessed that he encountered much difficulty in the explanation of this sign. That, as a rule, if not invariably, the sign repre-

* I dissent from the statement made by some writers that bronchophony is a cavernous sign. Clinical study, as I believe, shows that merely intensification of the resonance is the sign when the voice is transmitted through a cavity. The voice may be bronchophonic over a cavity surrounded by solidified lung, but then the sign represents the latter condition, and not the cavity.

sents pleural effusion, I do not doubt, notwithstanding the opinion of Skoda and others to the contrary.

Here, as in other instances, Laennec naturally sought to give an idea of the sign by comparisons. The name which he gave to it applies resemblance to the cry of the goat. He also compared it to the voice when a counter is placed between the teeth and the lips, to the voice transmitted through a metallic speaking trumpet, and to the nasal intonation which is assumed in the performance of Punch. Studied analytically, it has the concentration and the high pitch of broncho phony. It differs from the latter sign in being distant, and in its tremulous or bleating character.*

SIGNS REFERABLE TO THE WHISPERED VOICE.

The sounds heard over the thorax when words are whispered, have not, as yet, been recognized as forming a separate group of auscultatory signs. They seem to me to be entitled to this distinction. It is true that a whisper is almost always an expiratory act, and, therefore, the characters of the sounds thus produced are identical with those of expiration in the respiratory signs. The expiratory effort in a whisper, however, as a rule, has more force and emphasis than in the acts of respiration; hence, the characters of the sounds heard over the thorax are more marked; and, moreover, there is sometimes an advantage in listening to these sounds disconnected from the inspiratory sounds. Practically, the whispered voice will be found useful, especially in the diagnosis of incipient pulmonary phthisis.

The whispered voice, as heard over the healthy chest, may be called the normal bronchial whisper, inasmuch as the same is conducted by the bronchial tubes. The normal bronchial whisper is low in pitch, its quality is blowing, and its intensity in different persons variable, these characters corresponding to those of the expiratory sound in the normal respiratory murmur. The characters are normally modified over the primary and secondary bronchi, especially on the right side of the chest, in the same way as the expiratory sound in normal broncho-vesicular respiration. The abnormal modifications may be named so as to correspond with the signs referable to the loud voice, as follows: 1. Increased bronchial whisper; 2, Bronchophonic whisper, or whispering bronchophony; 3. Cavernous whisper; and 4. Whispering pectoriloquy.

The whispered, as well as the loud voice and the respiration, may be amphoric; but I pass by now, as hitherto, this sign, for the reason that it does not require analytical study, the musical intonation being alone sufficient for its recognition.

The bronchophonic whisper is correlative to bronchophony referable to the loud voice, and to bronchial respiration. It is a high-pitched tubular sound, more or less intense.

Increased bronchial whisper is correlative to increased vocal resonance and to broncho-vesicular respiration. It is less high in pitch, less tubular, and less intense than the bronchophonic whisper.

The cavernous whisper is correlative to cavernous respiration. It is low in pitch, blowing in quality (as distinguished from tubularity), and of variable intensity.

In whispering pectoriloquy the speech—that is, articulated words—are conveyed to the ear of the auscultator. Whispered speech is oftener transmitted than words spoken with the loud voice. The whispered words may be transmitted either by solidified lung or through a cavity, and it is easy to determine, in individual cases, whether or not it be a cavernous sign. If the pectoriloquous whisper be also bronchophonic—that is, the sound high in pitch and tubular in quality—the conduction is by solidified lung. If, on the other hand, the whispered words be associated with the characters of the cavernous whisper, the conduction is through a cavity.

SIGNS PRODUCED BY PERCUSSION.

The advantages of the analytical method of study are as marked in its application to percussion as to auscultation. The results of the study, however, will require much less extended consideration.

Taking, as a point of departure, percussion in health, and the characters of the normal resonance as a standard for comparison, the number of morbid signs need not exceed six, and considering, as might be done, three of these as varieties of one sign, the number is reduced to four. Thus, either four or six signs represent the important morbid physical conditions incident to different pulmonary diseases, in so far as these conditions are determinable by percussion. An important result of the analytical method of study is the elimination of such vague terms as full, empty, hard, wooden, tracheal, bandbox, resonance, etc.

The normal resonance on percussion varies in different persons and in different parts of the chest,

*I refrain in this paper from entering into a consideration of the mechanism of signs; but, with regard to ægophony, I will venture to offer an explanation, which I do not remember to have met with in any work on auscultation. It is that the sign is produced when, owing to either old adhesions, or recent agglutination by fibrinous exudation, the pleural surfaces adhere in the upper part of the chest, so that the lung resists the pressure of the liquid; consequently the pressure upon the lung below the adherence condenses it to such a degree as to give rise to bronchophony. The bronchophony, under these circumstances, lacks the nearness to the ear which it has when liquid is not present, and the presence of the liquid causes the goat-like characters of the sound. This explanation tallies with the fact that the sign is generally limited to a narrow strip near the level of the liquid, and also with the fact that the sign is rarely found except when the level of the liquid is at or near the lower angle of the scapula. According to this explanation, as well as to the results of analysis, ægophony is a modification of bronchophony.

as regards intensity. As compared with all the morbid signs produced by percussion, it is always low in pitch. The quality is *sui generis*, and being due to the air vesicles, it may properly be called vesicular.

One of the signs is characterized by absence of all resonance or flatness. Of course this sign has no characters pertaining to pitch or quality of sound.

Diminished resonance or dulness is another sign. In this sign the vesicular quality of sound is decreased in proportion to the diminution of resonance or the degree of dulness, but more or less of the quality is appreciable. The pitch is always higher than that of the normal resonance of the person examined. The elevation of pitch is of practical value in determining a slight degree of dulness.

A third sign is tympanitic resonance. Intensity should not be considered as an element in the characters distinctive of this sign. A tympanitic resonance may be either more or less intense than the normal resonance of the person examined. The chief characteristic of the sign relates to the quality of sound; the resonance is devoid of vesicular quality. A resonance absolutely non-vesicular is always tympanitic. Tympanitic resonance and non-vesicular resonance are, therefore, convertible terms. The pitch is always higher than a resonance with vesicular quality.

The fourth sign is a resonance in which the vesicular is combined with the tympanitic quality, and the intensity of the resonance abnormally increased. I have proposed to distinguish the sign by the descriptive name, vesiculo-tympanitic resonance. The pitch is always higher than that of the normal resonance of the person examined. This vesiculo-tympanitic resonance is a diagnostic sign in cases of vesicular emphysema. It is the resonance found above the level of the liquid in cases of pleuritic effusion, and over the healthy lobe of a lung when another lobe of the same lung is the seat of lobar pneumonia.

In order to illustrate the characters of this sign, and also its practical value, I will state a problem in diagnosis:—

Let it be supposed that a patient having had cough and expectoration for a considerable period, together with deficiency of breath on exercise, is a subject for a physical examination of the chest. Over the upper anterior thoracic regions, on the right side, the resonance on percussion is found to be notably less in degree than over the corresponding regions on the left side. The difference, as regards intensity of resonance, between the two sides in these regions, is distinctly greater than the normal disparity. Now, if the relatively less intense resonance on the right side be considered dulness, this sign, in connection with the symptoms, points to the existence of pulmonary phthisis. But the relatively less intense resonance on the right side may not be dulness—it may be due to an abnormal increase of the resonance on left side. If this be so, the greater resonance on the left side points to vesicular emphysema. The question whether the difference in the intensity of resonance between the two sides be due to an increase of the resonance on the left side (denoting emphysema), or to dulness on the right side (denoting phthisis), is to be settled by comparing the resonance on the two sides as regards characters other than intensity—that is, by the characters relating to pitch and quality. If the resonance in the hypothetical case which has been stated be higher in pitch, as well as more intense, on the left side than the resonance on the right side, it is a vesiculo-tympanitic resonance, and denotes emphysema. If, on the other hand, the resonance on the right side be highet in pitch than that on the left side, as well as less intense, it is dulness, and denotes a certain degree of solidification of lung.

The error of confounding phthisis and emphysema is not infrequent: two diseases differing widely in respect of gravity, and the latter protective in a great measure against the former. Assuming, in a case offering the problem just stated, the disease to be pulmonary emphysema, the relatively lesser resonance on the right side of the chest is, in fact, an increased or a vesiculo-tympanitic resonance, as may be shown by comparing the resonance on this side in the regions named with that of the resonance over the lower lobe of the lung on the same side. This is in accordance with the rule that vesicular emphysema, when not lobular or vicarious, is bilateral, affecting the upper more than the lower lobes on the two sides, and generally the upper lobe of the left more than the upper lobe of the right lung.

Amphoric and cracked-metal resonance on percussion may be considered as varieties of tympanitic resonance. They are covered by the definition of tympanitic resonance, that is, the resonance is non-vesicular. They are readily enough distinguished by their characteristics. Perhaps, in view of their significance as cavernous signs, it is more convenient to enumerate them as distinctsigns.

I have endeavored in this short paper to give an exposition of the method of study which, as it seems to me, secures for auscultation and percussion simplicity, together with completeness and precision in their application to physical diagnosis, and I have submitted results to which I have been led by pursuing this study as a branch of clinical medicine. If the tone of my paper may have appeared to show undue assurance—or even dogmatism—I would plead in extenuation that in order not to presume too much on the patience of my hearers and readers, I have sought to condense the matter as much as possible. As a further plea, I may add that I have for many years been a student and teacher of auscultation and percussion, and that I have reached the age when some indulgence may be claimed on the score of no longer remaining among the junior members of our profession.—*Gaillard's Med. Journal.*

THE MANAGEMENT OF ECZEMA OF THE ANUS AND GENITAL REGION.

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Read before the New York Academy of Medicine, December 2, 1880.)

The misery endured by patients affected at all severely with eczema about the anus or genital region can be little understood except by those who have thus suffered, or who have had much to do with those thus afflicted. From the number of these cases which have come under my care, and from their previous duration, I fear that the importance of the disease in this locality is not fully appreciated by the profession, and that the measures which will give permanent relief are not as well understood as they might be. It has occurred, therefore, that a practical consideration of the subject might not be without interest at the present time, hoping that thereby some may be enabled to give relief to many of these distressing cases, whose existence, I am sure, is far more common than is generally supposed. Thus, of 700 cases of eczema occurring in my own private practice, there were seventy-three in which these parts were invaded, or over ten per cent. of the whole number. The records of my dispensary and hospital cases have not been kept with sufficient accuracy to allow of analyzing them in this respect; but, from the very many instances which I have seen in public practice, I think I do not exaggerate in placing the ratio at at least one-tenth of all the cases of eczema. That statistics do not represent the real frequency of the disease is evident, for I know that sufferers from eczema of the anus or genital region often, if not generally, hide their trouble until it is no longer bearable; especially is this true of females. The reasons for this concealment are several. Shame undoubtedly prevents many from exposing disorders of these parts to the knowledge of others. The idea is more or less prevalent that any disease in this region may have some connection with sexual transgressions. Again, many with eczema of the anus imagine that they have "piles;" indeed, cases of this trouble very often pass among the general profession as "itching piles," while, of course, every disease about the anus is thus named by the "pile doctors" to whom these unfortunates often apply. Eczema about the genital folds also often passes for simple chafing, until it is deep-seated, and the long continuance of the causes and results have rendered the condition very rebellious to cure. Still another cause operating for the continuance of these cases and neglect of treatment, it must be acknowledged, is the feeling which has long pervaded the people that disease affecting the skin is a special dispensation of Providence, which it is wrong or useless to interfere with, or which will, in some way, right itself; while, no doubt, there has been also the feeling that affections of the skin were not amendable to treatment to the same degree as are other maladies. Happily, popular and professional scepticism in regard to the success of the treatment of skin diseases is fast passing away before the rapid progress which has been made in dermatology within the last five-and-twenty years, so that this once-neglected department may now be reckoned one of the most certain branches of medicine, if, indeed, it is not the most certain and definite in the matters of diagnosis and treatment.

Eczema of the anus and genital region does not differ essentially from the same disease as manifested elsewhere, and my object in treating of the eruption in this particular location is to call special attention to its frequency, its obstinacy if not properly managed, and last, but not least, to some of the measures which I am constantly using with success in its removal. While, as has been remarked, the disease does not differ in nature from eczema of other parts, there are some peculiarities in its pnenomena and their treatment to which it may be well to call particular attention for the text-books are meagre so far as relates to this special manifestation of eczema.

Acute eczema of the anus is not very common, but is seen more or less frequently on the genitals. Its management generally presents but little difficulty, and differs little, if any, from that of service in a similar state elsewhere. Rest, absorbent powders, or lotions with a powder in them, generally suffice. The present paper has to do with those many cases of chronic eczema where the disease or irritation has lasted for weeks, months, or years.

All degrees and grades of this eruption may be observed in the regions under consideration, and often those cases presenting the least external signs will give the most distress. About the anus we may sometimes have but a slight amount of thickening of the muco-cutaneous surface, with a little purplish congestion and perhaps a few rather superficial excoriations or abrasions in the folds of the opening, and yet the distress with itching and pain may be intense, and prevent or greatly disturb sleep, and even rob the patient of peace and comfort. Or, again, there will be very little to be seen on a scrotum, except some marks of scratching, and on close examination only a moderate thickening of the skin is felt on pinching the part, and yet the annoyance, or even distress, of the itching will be such as to be a real burden to the patient. We may also have much the same state of affairs existing about the female genitalia, and, though not presenting much to the eye, the condition may be the occasion of great suffering. In each of these instances there is a deep sensation of itching for which they will pinch, or press, or rub, or scratch the part, and even thus can only with difficulty reach the seat of annoyance; nor caan these

patients by force of will abstain from thus seeking relief.

Many of these cases have been called pruritus, or even prurigo of these parts ; but in by far the larger share of cases the real trouble will be found to be an eczema, which sooner or later would or does develop into more characteristic features.

But the really severe cases show, of course, manifold more external signs of the disease, and we may have the entire anal region the seat of a greatly thickened, red, moist, exuding surface. Very often the condition even seems to be only a whitened, soggy state of the parts between the buttocks, the natural furrows in the mucous membrane being deepened, and some few abrasions being seen. This condition gives rise not only to periodical or permanent itching, but even to great pain on sitting, or during defecation. This state may effect the region of the anus alone, or may extend to and involve the entire male and female genital region; or these latter may be affected alone, even to a very severe degree, without the process extending to the region of the anus.

Eczema of these regions is by no means always associated with eczema on other parts of the body, for in some of the worst cases which I have been called upon to treat there has been no sign of cutaneous disease except upon the anus or genitals, or both, although I have also frequently seen it associated with a similar eruption elsewhere, or with a history of preceding eczema of other parts.

I will not occupy your time with entering upon the exact clinical features of eczema in the locations under consideration or of the differential diagnosis from other lesions likely to occur here. I will only remind you of the absolute necessity of a correct diagnosis in this as in other diseases of the skin, without which, of course, no management can be successful. This remark is not as unnecessary as it may appear to some, for I have seen a number of cases where quite different states have been regarded as eczema by those who had previously seen the case.

It is well always, as a matter of routine, to eliminate the matter of pediculi pubis, for they may be sometimes found, as also the other varieties of the pediculus, even in the highest walks of life, and may give rise to an itching which closely resembles that of eczema, and the subsequent scratching may cause abrasions simulating this eruption.

Scabies should always, also, be borne in mind, for in males lesions are very commonly found on the penis and scrotum, and it would be quite possible for the manifestations elsewhere to be very light, or to have been removed by treatment while they remained on the penis or scrotum. Or, again, very severe treatment for scabies may have left behind it an artificial inflammation resembling eczema.

One of the most common complications of eczema in the genital region, and also the lesion which perhaps is most often mistaken for it is the vegetable parasitic eruption, the so-called eczema marginatum, or ringworm of the thigh—tinea trichophytina cruris. As remarked, this may be a separate affection or it may complicate an eczema and occasionally we observe at one and the same time the characteristics of the parasite disease: the sharply defined margin advancing as the surface clears more or less behind it, and the irregular, blotchy patches of eczema near by. The eczema may exist first, and the parasite, finding an appropriate soil, may grow upon it; or the parasitic eruption may be of old date, and the eczema may develop upon it from the severity of the itching and the stimulant applications given to relieve it, or from the scratching itself. Now, unless this parasitic element is recognised and met therapeutically, the case will prove most rebellious.

On a number of occasions I have seen syphilitic lesions about the anus and genital region which had been called eczema and treated as such. I need but suggest this, for the lesions of the two are so markedly distinct when carefully considered that they should never be confounded.

Herpes of the genital organa is more frequently mistaken for venereal ulcers, but may also resemble eczema in a measure, and should always be differentiated.

Finally many cases of pruritus of these parts undoubtedly do occur which should not be classed as eczema, although, as remarked first, more cases are probably classed as pruritus and prurigo of these regions which are in reality eczema, than there are coses of pruritus which are called eczema wrongly. On several occasions I have seen the pruritus accompany glycosuria develop an eczema, and I have seen as a further complication a distinct eczema marginatum or ringworm formed later.

This is not the time or place to enter upon an extended study of the nature or causes of eczema in general, nor to give views as to its prognosis. As regards, however, eczema affecting the regions under consideration, I may say that I do not regard it as of local origin, but that it invariably indicates a state or habit of body which, unless it is properly reached, will certainly render the affection incurable On the other hand, I firmly believe, and know from experience, that if careful, proper and sufficient care be taken of these cases in every respect, they are most certainly curable, and that permanently; unless indeed, the patient again transgresses all rules and excites a fresh attack, which need not happen, and which is rare in those who have been faithfully treated. I refer of course, to the intelligent patients of private practice, for, however valuable public practice is for diagnosis and teaching far less reliance can be placed on therapeutical deductions there formed than on those obtained by the careful study of private patients.

It will be understood here, however, that I by no means ignore local causes as determining agents in the production of the eruption at any particular place and time, for this is confirmed in regard to eczema of other parts as well. Thus I have no

doubt but that the irritating nature of some vaginal and uterine secretions may provoke a pruritus which may end in an eczema. Also, the perspiratory or sebaceous secretions of the parts in question may perchance be more irritating than usual, or may have been confined and become decomposed, and thus act as a local excitant; a neglected erythema intertrigo may develop into a very intractable eczema. Irritating under-clothing, as also bad water-closet paper, may afford the primary cause, and perhaps many other local elements may be of more or less importance, and should of course, be taken into consideration in the management of the eruption.

But all these—indeed, many local causes may exist in certain individuals and yet never provoke an eczema; and they may even have occurred to the same person on previous occasions, and yet have proved innocent. There certainly is some other state or element which requires to be recognized and met in order to give these patients perfect and permanent relief.

The most common single, general symptoms observed in patients with eczema of the anal or genital region is constipation, or, as it might be more properly called imperfect intestinal excretion, generally with faulty liver-action; indeed this almost invariably exists to a greater or less extent, and requires to be looked for and managed properly. So commonly have I found this in the very considerable number of cases of eczema of the anus and genital region which have been under my care, that I had felt that I could almost state it to be an invariable accompaniment of this condition; but on going over my notes of cases, I find a certain small proportion in whom it sistated by the patients that the bowels acted regularly once or twice daily. This is not, however, convincing proof to me that the intestinal action was perfect, and I still believe this to be the most important single factor in the disease. Quite possibly the irritating character of the excrement itself is an efficient local cause of the presence and continu ance of the eruption.

This imperfect intestinal excretion should be corrected, if possible, and very great care will sometimes be necessary to accomplish this. It is not enough to give occasional purgatives, nor even to prescribe daily laxatives; for, unless much caution is exercised, the ultimate result in this direction may be bad instead of good. These remarks in regard to the management of this important element may seem trite and out of place before this learned body, but I wish to impress the very great importance of dealing with this portion of the treatment rightly as a *sine qua non* of the successful management of eczema of the parts under consideration.

All the elements which conduce to bring about a healthy action of the bowels and organs of digestion must therefore be attended to, and, consequently, in the treatment of eczema about the anus and genitals we must not be content with a few general directions, or the prescription of one or another purgative or laxative remedy. On the contrary, it may require no little trouble to ensure a healthy evacuation of the bowels daily, and this is accomplished by diet, exercise, regularity in attending to the call of nature, and such assistance from medicine as may be necessary.

A very common accompaniment of eczema of the regions under consideration is a greater or less congestion of the portal and hemorrhoidal circulation, manifested by a purplish congestion of the mucous membrane of the anus, or very commonly by a greater or less degree of internal or external piles. These latter may not be sufficient to be recognized by the patient, and yet be an element indicative of the existing state which must be regarded. It is well, therefore, in examining patients thus affected, to have them strain or bear down to bring the deeper portions to view.

When this congestion of the hemorrhoidal vessels exists I almost invariably give the time-honored mixture of precipitated sulphur and cream of tartar, in quantity sufficient to secure one or two loose movements from the bowels daily. I never give it with syrup, as I believe this often ferments or acts prejudicially in the stomach and in a measure impairs the good effects. I order a mixture of the sulphur and bitartrate of potassa in equal quantities, and direct that from one to two teaspoonfuls be taken at night on retiring, rubbed up with water into a paste. The dose is not a very pleasant one, but it is readily taken, even by ladies.

Where there is no marked hemorrhoidal congestion I employ a pill of two grains and a half each of blue mass and compound extract of colocynth, with a quarter of a grain of powdered ipecac in each pill; two such pills to be taken at night and two on the second night after, followed each morning by a seidlitz powder or Kissingen water. These pills are to be taken only twice, and are not resorted to again at a less interval than a week or two; but they may be thus used repeatedly with good effect.

If there is simply a sluggish action of the bowels I have had most excellent results to the accompanying eczema from the use of a pill composed of half a grain of the extract of socotrine aloes with a grain of dried sulphate of iron and a little aromatic powder and confection of roses, one pill being taken directly after eating. Very much may be accomplished by this combination in the way of permanently overcoming the constipated habit if the pills are employed regularly and systematically according to the following directions: as first one pill is taken directly after each meal, three times daily; in a few days the noon pill is omitted, and a few days later one is taken after the evening meal only, and soon this is required less frequently, and subsequently omitted. The point to be insisted on is that the pills shall be used regularly in the above manner until the bowels acquire the habit of daily excreting and discharging a normal amount—if they are

taken irregularly, simply for a cathartic action, no, ultimate good results follow; but I can bear testimony very strongly to the value of this plan of treatment, and could adduce many cases where this has constituted one of the chief means of speedy and permanent cure of long standing cases of eczema of the anal and genital regions.

It is a very common custom with many to give mineral waters to these patients, with the simple direction that they keep the bowels open therewith. In my experience this is an unwise procedure, and I believe that many persons are to-day suffering from constipation and consequent eczema of the lower region because of the constant stimulation of the intestinal tract with these or other purgatives, while the cause of intestinal inactivity—sedentary habits, over indulgence at the table, etc.—has been allowed to go on unchecked. I never order mineral water to be taken for a length of time, and constantly discountenance their use.

Nor is it at all sufficient, in these cases, simply to secure an emptying of the lower bowel by means of an enema, even if employed daily. In my judgment enemata are to be used only very rarely for a definite purpose, and the habit of a dependence upon water injected to excite the intestines to contraction is worse even than to have them depend upon mineral water poured into the other end of the digestive tube. Nor will an action of the bowels secured by enema at all help an eczema of the anal or genital region, for I have seen some very bad cases of the eruption in this locality where this means of emptying the bowel was practised.

I will not here enter more largely into this subject, which is a prolific one, nor will I detail further remedies which might be of service; but I have dwelt on it thus long because the more I see of these cases the more convinced I am that imperfect liver-action and imperfect intestinal excretion are at the bottom of very many of them. As mentioned before, he will but poorly treat these cases who contents himself with prescribing in a routine manner this or that remedy, which has been proposed or vaunted, and he will but poorly manage the intestinal excretion who is satisfied with giving casual prescriptions to loosen the bowels. The physician must give definite instructions to the patient in regard to his mode of life, diet and hygiene, and must even extend it to securing that the call of nature, thought it be light, be answered promptly at a regular time each day, preferably after the morning meal.

Next to imperfect bowel-excretion I would place deficient kidney action as an element to be regarded in the cases under consideration. The urine of these patients is seldom that of health; the most varied conditions may be reported, but not all infrequently it is recognized by the patient as leaving a deposit in the chamber and staining the same. Frequent and imperative micturition is not at all uncommon, and the repeated calls to urinate at night and the itching will often act and react on each other, rendering sleep almost impossible.

Most of these cases, therefore, require also an alkali, and I find the best results from acetate of potassa with a bitter, as in the following mixture.

℞. Potass. acetatis.....ʒ j.
Tinct. nucis vomic.....ʒ ij.
Infus. quassiæ.....ʒ iv.
M. Teaspoonful after eating, in water.

This is often continued during the entire course of treatment, and frequently for some time after the complete disappearance of the eruption and cessation of all itching.

Not infrequently, however, cases of eczema of the anus and genitals will be associated with a large amount of oxaluria, and will be quickest relieved by the strong nitric acid internally, in doses of about two drops after eating. The well-known mixture of sulphate of magnesia, sulphate of iron, sulphuric acid, and infusion of orange-peel, is sometimes of much service, especially when there is a tendency to sluggishness of the bowels, which does not remain corrected with diet, etc., after a course of the pills mentioned.

In some cases the disease is largely due to simple debility, and iron and other tonics which give life and tone to the system will do the most good to the eczema, often in the way of rendering the processes of assimilation and disassimilation more perfect, whereby the liver, bowels and kidneys share the healthful activity.

These are the main internal remedies of service in this oftentimes very troublesome affection, and if the homely measures I have briefly alluded to are faithfully carried out and combined with proper local applications, they will, I am confident, secure the permanent removal of a complaint which is at this moment rendering many individuals very uncomfortable, if indeed it is not in some cases almost making life a burden.

It will be noticed, perhaps, that arsenic has not been mentioned, and yet I am positive that one-half of the general practitioners would give arsenic at the first visit to one suffering from the conditions under consideration. I will say that I had *not* purposely omitted mentioning arsenic, but that merely it had not occurred to me to speak of it because, probably, I so seldom use it for these cases. When there is a marked eczematous habit, and when, after all the above measures have been attended to, and others perhaps in the same line, if, then, there remained a tendency to the disease, I might and do employ it in connection with other remedies, but never as a curative measure at the beginning of the case, especially never in cases presenting acute symptoms. As a modifier of the nutrition of the skin, arsenic holds a high place among other medicines, but not as a controller of congestion or inflammatory action.

If internal and general measures are important in eczema of the anus and genital region, local

measures are, if possible, of even greater importance; it is much not to do the wrong thing, and still more to do just the right thing. This remark is made because one occasionally sees cases which have been greatly aggravated by previous treatment, which yield promptly to proper measures. The main point to be ever borne in mind in the treatment of these parts is that more harm than good may be done by too strong applications and that the soothing plan must be followed as far as possible, certainly while there are signs of inflammation, stimulating measures being adopted only in later stages of treatment and to remove the remains of the disease, as thickening of the skin, and not for the arrest of the eczema.

The itching of these cases is often most intense, and the patient will plead that if he can only have something to stop the itching the disease will get well. And so I have repeatedly had cases where all sorts and kinds of measures had been previously prescribed with a view of arresting the itching, but in vain, whereas the case yielded speedily when complete treatment was instituted, including only very mild local measures. Quite recently a physician brought a patient in consultation, not in regard to any general management of the case, but only to have my opinion in regard to the probable utility of applying the actual or galvanic cautery to the parts to arrest the itching. And so I have had cases which had previously been given stronger and stronger local applications, with a view of checking the itching, after the failure of recognized neurotic local remedies, until the parts had been brought to a terrible state of inflammation from such applications as strong citrine ointment and the like. Now, while these may succeed in some cases in which, perhaps, a transient, digestive disturbance was the starting-point of the eczema, I am confident that in the main all such attempts in the way of a local treatment of eczema in these parts is false in theory and injurious in practice.

The measures which I am about to detail may be simple, but will in most, if not all, cases, be sufficient as local treatment, provided that all else has been carefully attended to, as implied in the preceding brief mention of dietetic, hygienic and internal medication.

I place great reliance upon hot water as a means of relieving the congestion of the parts and the consequent itching. But the water should be indeed hot, and not warm—so hot that the hand cannot be thrust wholly into it—and it should be used in exactly the manner now to be described. I speak thus positively because I occasionally hear it asserted by patients that it is not of service, and on inquiring I find that the exact rules have not been followed, or that it has been used for a longer time. or oftener than prescribed. The patient should sit on the edge of a chair and have a basin with the very hot water and a soft handkerchief in it. This latter is then picked up and held in a mass to the anus or genital parts, as hot as can be borne, say for a minute, and then dipped in the water again, and the process repeated three times, the whole not lasting more than two or three minutes; too long bathing, or two frequent sopping of the part, or rubbing with the cloth, etc., makes matters worse.

Before the hot water is gotten ready, I have the ointment which is to be employed spread thickly on the woolly side of surgeon's lint, cut of a size to cover the affected parts only, and laid close by ready for immediate use. After the parts have been soaked with the hot water for the prescribed time, they are rapidly dried by pressing a large, soft linen napkin upon them, with absolutely no friction, and the already spread cloths are immediately applied, the object being to at once exclude the air entirely. Ordinarily it is necessary to use the hot water only a single time in the twenty-four hours, namely, after undressing, and when ready to get into bed. It must be premised that the patient is to so manage as not to indulge in the usual scratching before undergoing these manipulations. If this desire is given way to beforehand, the treatment will not always control it at once; but if the patient can avoid even touching the parts except as described, he or she will commonly be quite able to go to sleep immediately. I have repeatedly had those thus afflicted say that the first night of treatment was the first real rest they had had for months or years.

If the case is very severe, and if there are spells of recurrent itching, the hot water may be repeated occasionally; but it is commonly sufficient simply to renew the ointment one or more times in the day, especially in the morning on rising, without the repetition of the hot water, which latter, I think, sometimes acts prejudicially in softening the parts if used more frequently. It should be added that the ointment should always be spread on lint, and never be rubbed to the part; also, that in applying the lint it should be kept in close apposition to the diseased surface, and that by means calculated to heat the parts as little as possible; and, finally, that in renewing the dressing the fresh cloth should be spread and ready near by before removing the previous one, that the access of air to the parts may be prevented by changing the coverings as quickly as possible.

The ointments employed must vary somewhat with the case, and no single one could be mentioned which would be invariably of service. That which I most commonly prescribe is made as follows:

℞. Unguent. picis..... ℥j.
Zinci oxidi..... ʒij.
Unguent. aquæ rosæ (U. S. P.)... ℥iij.
M.

This should be of a consistence which spreads easily and remains soft, which may be easily regulated by varying the proportion of the spermaceti in the rose ointment or cold cream. I may add that I never employ the recent products of petro-

leum, cosmoline and vaseline, as a basis for these ointments where protection of the surface and exclusion of air is desired, as they have not body enough to remain as a thick coating upon the limb, but rapidly soak in and leave the parts dry and exposed.

I will not occupy time with further details of ointments, as this is sufficient to indicate the plan or idea of treatment which I wish to present as offering success in the class of cases under consideration; while the ointment is not a matter of indifference, the same result can be obtained, I believe, by other remedies than the one mentioned, and my case-records would undoubtedly show many others of value. It is the method of employing remedies and strict attention to details which give success, and I feel certain that the points I have given are very important and will be of the greatest service if carefully carried out.

Brief mention might be made of other applications which have rendered me good service, although, as before remarked, remedies must vary for different cases, and it is beyond the limits of the present paper to detail all that might be used and to give their possible indications. The following combination is very effective:

℞. Unguent. picis ..... ʒ iij.
Unguent. bellad .... ʒ ij.
Tinct. aconit. rad ..... ʒ ss.
Zinci oxidi ..... ʒ j.
Unguent. aquæ ros .... ʒ iij.
M. Ft. ung.

The ointment of chloral and camphor, of each a drachm or two to the ounce, will often prove a very efficient anti-pruritic, as first described by the present writer several years ago.

Lotions are sometimes of much service, especially in eczema of the penis and scrotum, and the following can be recommended:

℞. Bismuth subnitrat..... ..... ʒ ij.
Acid. hydrocy. dil..... ʒ j.
Emuls. amygd..... ..... ʒ iv.
M. Ft. lotio.

This of course must not be used where the skin much torn or broken.

A word may be added in regard to the employment of stronger local measures, for they are not infrequently of value in proper cases and at the proper time or period in the disease. When congestion has ceased, and there is still some thickening and a tendency to slight cutaneous fissures, we may use the green soap or the compound tincture of green soap.

℞. Saponis viridis,
Olei cadini,
Alcohol.....a a ℥ j.
M.

with good effect. With this we need friction, and a piece of muslin (subsequently white flannel may used to give greater friction) is wet with the lotion and rubbed briskly over the parts for a few moments, which are then to be immediately covered with a mild ointment. For this purpose the ordinary zinc ointment, half a drachm to the ounce of the unguentum aquæ rosæ (U.S.P.), answers well, or the subnitrate of bismuth or calomel either in the same strength. We may also use with good effect the unguentum diachyli of the German Pharmacopœia, as introduced by Hebra; but this is apt to be too stimulating for some skins. It is quite as well not to have any tar in these ointments, because, having stimulated with a tarrylotion, the parts need complete test. We may sometimes obtain excellent results from the use of caustic potassa in solution, used in much the same way, but some caution will be necessary in order not to overstimulate the part. A lotion of five to ten grains to the ounce is all that can be borne in many instances; but if carefully applied, especially by the physician, one of the strength of fifteen, thirty, or even sixty grains to the ounce, may be quickly brushed over the part, and cause an exudation which is followed by relief to the itching and diminution of the disease. These strong applications are to be advised with caution, and care should be taken that soothing measures, as cold-water dressings, are employed afterward.

When the tendency to slight fissures of the muco-cutaneous fold still remains, we will have great benefit from touching the latter carefully with a stick of pure nitrate of silver, and afterwards packing in a little cotton upon the parts. But I must advise this also with caution, because one of the worst cases of acute eczema of the scrotum and anus which I ever had under my care, and which had confined a gentleman to bed for several weeks, was started up by having an old eczema of the anus thus touched with lunar-caustic by a gentleman of great eminence in the profession; in a case of my own also there was very considerable inflammation excited by a similar application made by myself, but it passed off in a day or two, and with great subsequent benefit to the parts.

Time does not permit me to go into the subject more fully, though there is very much more which might be said. Eczema about the female genitals presents some features still different from those mentioned, and often proves very rebellious, but is in the main entirely amenable to very carefully directed treatment on the plan of that here detailed, and that in a reasonably short time. When considering the matter of diagnosis, mention was made of the frequent occurrence of a vegetable parasitic eruption about the genital region, the eczema marginatum of former writers, and of the liability of confounding it with eczema of these parts. The rather sharply-defined border of the eruption and the tendency to clear in the centre are points which will first attract attention to this tinea or ringworm of this region, and frequently, though

not always, the parasite, the same as in tinea tonsurans and circinata, may be made out in the scales by the microscope. When this is determined to exist, we may at once use anti-parasitic remedies, or it may be necessary first to treat the eczema element for a while until the acute inflammation has in part subsided, in the manner previously detailed, and afterward the parasiticide may be applied without causing irritation. The parasiticide which I most frequently employ is the strong, undiluted sulphurous acid, freely bathed on the part, which will give the greatest relief to the itching, and if persisted in will, singly and alone, cure the case. But, as I have frequently mentioned elsewhere, the sulphurous acid must be fresh (and I always instruct the patient to procure an original, unopened package), for, if used as ordinarily found in the drug-shops, it has altered by constant exposure to the air, and the SO_2 has become sulphuric acid, SO_3, and is of course very irritating and not efficient as a parasiticide.

Eczema of the anus and genitals is not infrequently seen in children, and causes great distress. I have had a number of cases which had been rebellious, but which yielded to the principles already discussed.—*N. Y. Medical Record.*

TREATMENT OF ECZEMA.

By R. M. Simon, B.A., M.B., Cantab.

What is eczema? Recent pathology has made it tolerably clear that it is a catarrh of the true skin, an inflammation, acute or chronic, with hyperæmia, proliferation of existing tissue elements, and exudation of blood elements. Accepting this view, which appears proved, how many independent skin diseases we can remove from our classification, and how easily can we see the relationship between hitherto separated affections. We can see how the simplest form of skin catarrh, the simple vascular engorgement, which we call erythema, may pass by slight exudation underneath the epidermis into the condition of macules, by a greater local irritation, causing proliferation of existing cells into the papule; and how the papule may, by passage of the serum through the lower epidermic strata, become a vesicle: the vesicle, by fatty degeneration of its contents, become a pustule; and how such affections as impetigo and ecthyma differing pathologically only in the size of pustules, be referred to their true classification. Surely it would be better to give up the name of eczema, seeing that we often have cases of popular eczema, without any obvious exudation, and for all this class of cases substitute the name dermatitis.

This very brief summary of the pathological anatomy of eczema seems necessary before commencing the discussion of its treatment, as by remembering our definition we at once enlarge the limits of the disease and simplify the use of remedies. For example, remembering that the prime factor in its causation is local hyperæmia, we can trace the connection between the troublesome eczema of the lower extremities and varicose veins with their attendant venous congestion, while a recognition of the cause suggests a remedy, for half a cure is often effected by placing the leg in a position of mechanical advantage, or by the use of carefully adjusted means of support, and especially Martin's bandages. I say half a cure, for long standing congestion, such as the one under consideration, produces changes in the skin which require further treatment.

The recognition of the true pathology of eczema has been the work of comparatively recent years and while great credit has been rightly accorded to the Vienna school of dermatologists, and great success and reputation have followed the work of Hebra and others, based on pathological considerations, the danger of extolling local treatment to the neglect of constitutional has been incurred to a great extent. German dermatologists have run to the extreme of denying constitutional causation; English ones, on the other hand, have assigned to local conditions, too little importance and each school has accordingly been too restricted in treatment adopted. The one relying on internal, the other on external, treatment.

Few will deny that rachitic children are more liable to eczematous eruptions than more healthy children, while none, I think, would attempt to treat such cases without the use of cod liver oil and other tonics. All of us must have seen the almost immediate benefit resulting from the administration of anti-gouty remedies in cases which have perhaps resisted all the ingenuity of local prescriptions, without a knowledge of the fact that a gouty diathesis was at the bottom of the mischief. We recognise that bronchitis, asthma, dyspepsia, may be traceable to a gouty diathesis; but few admit that skin affection may also be so referred, and unfortunately such as are of the most intractable nature. One of the most difficult forms to treat, namely, that of dry eczema, or eczema associated with slight exudation about the fingers and palms of the hands, is almost invariably of gouty origin, and is always benefited by iodide, potash and colchicum. No doubt the antagonism rises in great measure from the former excessive use of arsenic in all skin diseases. While the value of arsenic is undoubted on the grounds of its influence on the formation of the epidermis, its use is becoming more and more rare in general dermatology. It is only in squamous eczema that I advocate its use, believing that in no other cases of eczema is it of any benefit.

Any one may have an attack of eczema, and it will always be necessary to seek a cause. With some it may be gout; it may depend on irritation arising from trade causes, as from handling sugar, or lime, or flour, causing a condition known as grocers', bricklayers', or bakers' itch. Scabies, which depends upon the presence of the acarus, is a frequent cause of eczema: partly on account of

the intolerable itching and consequent scratching, causing diffused formation of vesicles, etc., and perhaps more often on account of the too long persistence in treatment by sulphur.

Having then been able to find a cause, local or constitutional, for the disease, and having, if possible, removed the cause, or tried to remedy the constitutional taint, we are brought to the problem of how to relieve the local symptoms, and removed the formed products of the inflammation. Cases of acute eczema are rare, and if not interfered with too much tend to recovery. The duty of the medical attendant is not to cure the disease, but, if possible, alleviate the symptoms. The patient complains of a burning heat, there is considerable swelling of the affected part, and sometimes the formation of innumerable vesicles. Let alone, or treated only by soothing remedies, the swelling goes down, heat disappears, and a slight desquamation alone remains. Poultices frequently used generally do harm in this stage; the warmth does not relieve the irritation of the peripheral termination of the nerves, and the external irritation of the poultice often extends the disease. The best means is the use of soothing lotions, and I know none better than one containing two grains acetate of lead, and five minims dilute hydrocyanic acid to the ounce of distilled water. Soft linen rags must be dipped in the lotion, applied to the part, and changed as often as they become dry. Cold water rags may be used in the same way, but it must not be attempted to keep the linen moist by covering it with oil silk; for by so doing the application soon becomes a warm one. I would remark on the great importance of using soft rain or river water, or distilled water, in the making of lotions—the salts in the hard water are themselves irritants, and aggravate the malady. Cases of acute general eczema of this kind are very rare, but such is the usual commencement of a severe local eczema, and should be treated as I have suggested; dusting the parts with powders, of which a good one is composed of equal parts of oxide zinc and starch has been recommended by many; but I have not found it expedient to use them, except in the so-called eczema intertrigo, which results from the rubbing together, especially in fat people, of contiguous parts, as the scrotum and thigh, the nates, or the fold of the thigh and groin in infants. The object of treatment is to keep the parts dry, and make them less likely to irritate each other by contact, but the object is better attained by keeping moistened lint between the parts, and so preventing contact. It is, however, of the utmost importance in the acute stage to avoid the use of irritating ointments, and indeed there is no indication for their use. There is no extensive infiltration; there are no formed elements of inflammation, and the skin, if swollen and hot, is still supple. Acute eczema then generally improves, hyperæmia disappears, and perhaps a little desquamation alone results to tell of its presence, but sometimes this is not the case. The disease passes from the acute to the chronic condition, we no longer have burning heat, but an intolerable itching takes its place, aggravated by warmth. Vesicles are formed; or of some the epidermic roofs break down, moistening the surface of the skin with an albuminous exudation: in some pus takes the place of serum, and we get a crop of pustules, which by bursting leave scabs and crusts. Owing to the excited scratching the disease is extended, and in other parts erythema is set up and papules are formed. So here we have, as the result of an acute eczema, scales, crusts, vesicles pustules, papules, and erythemia. Are we now to describe the secondary disease as a case of E. erythematodes, E. impetiginoides, Eczema vesiculosum, E. lichenoides. I think it is obvious such a description would be satisfactory to none. The picture I have drawn is a very common one, and furnishes to my mind a very strong argument for a diminution of our dermatological phraseology. Let us speak, if you will, of a papular eczema, not of eczema lichenoids, and by so doing we shall better remember our pathology, and I feel sure be more successful as we try to be more scientific in treatment.

Having then a case of chronic eczema, much will depend upon its seat, especially whether it occurs on hairy or non-hairy parts, or whether or no there is much infiltration of the part and on the presence of crusts or scabs. Crusts and scabs do not occur to any great extent on non-hairy parts, as they are rubbed off by contact with external objects, but they cling to the hairs on the head or face, and constitute a serious difficulty in treatment. They must be removed, and this point must be insisted on. I generally order the head to be well anointed with any oil, sweet or almond being preferable, and a flannel cap to be worn day and night until the crusts are sufficiently softened to be removable by the fingers or a comb. Should this means fail, a poultice will always effect our object. Cutting off the hair short is not in the majority of cases necessary; but removal of scabs is a *sine qua non* for success. Having done this, say in a case of eczema capitis, the question of further treatment arises, and we must start by remembering two points of importance; first, that if the air be allowed free access to the discharging surface, crusts will inevitably again form, and the trouble of removal again rise; secondly, that frequent washing keeps up the irritation, and soddens the parts, so that our ointments do not adapt themselves exactly to the affected places. While we have a condition in which pustulation is going on, ointments should be used of a soothing character, and I know of none better than the unguentum zinci oleatis. It does not really much matter what ointments are used. The point of importance is that the ointment be used in large quantities, thickly plastered on, and be an effectual barrier against admission of air. Under this treatment pustulation soon ceases, scabs no longer form, and the surface heals. If we now exam-

ine the head, especially in a scantily-covered child's head, we find the skin rough, harsh and papular.

We may discontinue our ointment, and begin to wash the head every other night with Hebra's spiritus saponis kalinus, made by mixing two parts of sapo viridis of the B. P. with one of spir. vini rectificatus, allowing the mixture to stand 24 hours, then filtering, and adding to the filtrate a little ol. lavandulæ or other scent. A little of this should be poured on a flannel previously dipped into warm water and the flannel rubbed on the head until a smart lather be caused, care being taken that the liquid does not run into the eyes. The lather should be allowed to remain on the head some ten minutes or so, and then played off with warm water. This should be done at bedtime and in the morning some hair oil should be used, and the case will soon be well. Should this not occur, use a stimulating ointment, such as ung. picis liquid in equal parts with ung. zinci oleatis. This has the disadvantage of blackening the part, and a more elegant formula for an equally efficacious liniment is Saponis mollis ; spt. vin. rectificat olei cadini aa ʒ i. ; olei lavandulæ ʒ iss. A little of this should be rubbed on the part night and morning, and washed off before each fresh application. Exclusion of air is not now so necessary as when crusts are being formed, so that we may use the above. Latterly I have been using, instead of the ung. zinci oleatis, an ointment of 20 grains gynocardic acid, to the ounce of vaseline. It is not better than the zinci ointment, but does relieve itching very markedly.

Before leaving the subject of head eczema I wish to refer to the well-known dependence of it upon the irritation caused by lice ; they should always be sought for in a dirty subject, and will generally be found nearly always indeed where we get enlargement of the glands at the back of the neck, co-existing with a slight but very irritable eczema at the root of the hair behind. I know of no better means of destroying them than a head wash of equal parts of petroleum and olive oils. The nits will be best got rid of by washing with vinegar and the subsequent use of a tooth comb. Eczema of the non-hairy parts of the face must be treated on the general lines of eczema of the body, but is often tedious on account of the difficulty of applying remedies, either from peculiarities of shape or the objection of patients to anything unsightly.

When the hairy part of the face is affected, constituting the sycosis of many authors (I do not wish by this to insinuate there is no such disease as a sycosis caused by a parasite, though I am sure that such disease is rare), treatment is often very difficult ; shaving is, I believe, inadmissible : for one reason it is painful, for another it keeps up daily a prejudicial irritation, and close cropping of the hair is equally effective for exposing the diseased spots, and permitting the application of remedies. Crop the hair then, and get to work by removing crusts ; apply your ointment diligently. I generally use in such cases an ointment of two parts of unguent. hydrarg. nitratis and six of sapo mollis. The skin is often deeply infiltrated, and this ointment tends to the removal of infiltrated matter ; but I prefer, where patients will allow me to do so, to cover the part with Emplastrum Litharg. B. P. I am not aware if this is a common mode of practice, but in my hands it has proved very successful after other means have failed. I apply the plaster myself, and direct it to be kept on until it becomes loose. It must be removed with gentleness, of course, and, if necessary, replaced by others ; it acts, I believe, partly by pressure, causing absorption of the exudation resulting from chronic congestion, and partly by the exclusion of air, while the part is kept warm and bathed by natural moisture.

In chronic eczema of the body, associated with exudation and formation of scales, for pustulation is not so common as on the head, our treatment must again be first directed to removal of any impediment to the direct application of remedies. Should the scales be thick and the exudation extensive we can get rid of both in a great measure by means of potassa fusa. Use a solution of it, which need rarely be more than half a drachm to an ounce of water, and should generally be tried in a much weaker form. Pass a brush dipped in it over affected part, backward and forward, and then rub it in well with a flannel dipped in warm water, until a lather is caused ; continue this, and you will see the scales melt away, while the proceeding becomes after a time more and more painful. Discontinue the rubbing, and cover the place with rags dipped in cold water or a very weak acetate or lead lotion ; continue the soothing applications. and repeat the use of potassa fusa in a few days. This treatment I have found very useful in gouty eczema of fingers. Generally speaking, however, scales are not formed in excess, and the skin is merely thickened, and has lost its suppleness. Where, as in the case of hands or feet, it is possible, I recommend the patient to wear a vulcanized india-rubber glove, by means of which the hand is kept warm and bathed in sweat, scales and exudation absorbed, and a cure often effected. It is in such cases especially that the actual ointment does not so much matter, only let it be well made. The chief use of the ointment is to make the skin moist, and supply the deficient suppleness and sweat which are lost, owing to the pressure of the exudation into the skin. Keep the ointment constantly applied, and avoid washing as much as possible. The ung. liquidi is in these cases very useful by diminishing the itching, but may sometimes itself be very irritating, and I therefore, as a rule, give it in equal parts with the ung. zinci oleatis.

It would be impossible for me in the limits of a brief paper to consider either all ointments, all lotions, or the treatment of eczema in every situation. My object has been to formulate, if possible, system of treatment founded on a due-

conception of the pathology of the disease, and I will express in a few brief axioms my views of the disease and its treatment: 1. Eczema is a catarrh of the skin. 2. Its local manifestation may be erythema, a papule, pustule, or vesicle. 3. It may commence acutely, and tend then to spontaneous recovery, or chronicity. When chronic, not only are vesicles, etc., formed, but exudation takes place into the true skin. 5. Such exudation must be removed, which must be by absorption by the medium of the blood vessels. 6. Hard water must be always avoided in treatment. 7. In all acute conditions lotions do good; ointments do harm. 8. Air should be excluded. 9. Water used but little. 10. Crusts must be removed.—*Birmingham Med. Review.*

CELERY COMPOUND.

In a Report on Materia Medica and Therapeutics to the Southern Illinois Medical Association by Dr. James I. Hale, Anna, Illinois, appears the following paragraph which is extracted from the *Therapeutic Gazette:*

"Apium Graveolens (Celery Seed). To what extent this has been used as a medicine I do not know. I do not remember of having seen any literature on the subject, but I know a fluid extract has been prepared and placed on the market which I have neither seen nor tested. Remembering the peculiar soothing, semi-narcotic, and hypnotic effects onions, leeks, lettuce, celery, and allied substances have when freely eaten, and that they are recommended as a particularly suitable article of diet for nervous individuals, I was led to believe that they might be more fully utilized as medicines. Being frequently consulted in regard to young infants being restless and fretful, particularly at night, which most generally arises from slight flatulency and acidity of the stomach and bowels, I have for some time been in the habit of recommending infusion of Celery Seeds with a little soda administered almost ad libitum with the most gratifying results. I deem it much better than the more potent and harmful narcotics so frequently, and often recklessly given. It is astonishing what good babies can often be made of the most fretful and restless. If you have not already tried it, by all means do so, and my word for it the weary, anxious mother, as well the hitherto irate fathers, will arise and call you blessed."

For years past Messrs. Chapman, Green & Co., Grand Crossing, Chicago, Illinois, have manufactured and sold a Fluid Extract of Celery Seed, which gave satisfaction to all who used it. Latterly influenced by the request of many Physicians to put up a preparation which could be more easily prescribed than a Fluid Extract they devised the following compounds which I extract from their Price List:

GLYCEROLE OF CELERY COMPOUND: *Celery Seed, Catnip and German Chamomile.*—Devised to supply a demand by the profession for a simple remedy that can be prescribed safely in cases of infantile derangements, dependent upon teething or otherwise, and where it is not thought desirable or necessary that morphia be given. The combination seems to control nearly all conditions of this class, and, in a majority of cases, is said to fill the indications better than opiates. It is a reliable nervine, inducing sleep, quieting pain, and promoting digestion. *It is also noticed that this Glycerole is an excellent medium for the exhibition of morphia.* Patients who owing to idiosyncrasy cannot well tolerate morphia or opium, find its use most unobjectionable if dissolved in this glycerole.

For infants the dose is 10 to 20 drops according to age or condition.—*Indiana Medical Reporter.*

TREATMENT OF GONORRHŒA BY INJECTIONS OF SULPHUROUS ACID DILUTED WITH WATER.

For some time I have treated all cases of gonorrhœa with injections of sulphurous acid diluted with water, and as the results in my hands have been very satisfactory, I write in the hope that others may be induced to give this method a trial.

I do not offer any theory on the subject, I simply state the fact that I have now treated sixteen cases of gonorrhœa, using no other medicine, and they all returned to duty in an average of six days. I have not observed a relapse or any bad effect. The majority of the cases were second attacks, but those suffering from primary attacks of the disease recovered equally fast.

When I commenced this method of treatment I used much stronger injections than I do at present. I find sulphurous acid one part to fifteen of water quite strong enough for most cases. The rules of treatment I recommend are: place the patient on low diet, and administer injections of sulphurous acid diluted in water one to fifteen, three times a day, no other treatment being necessary. I find it is necessary for the attendant to give the injections, for if it is done by the patient it is never well done, most of the fluid escaping back outside the nozzle of the syringe. The injection should be kept in the urethra from three to five minutes. If the patient complains of much pain, or if there is a tendency to chordee, it will then be sufficient to administer the injections once or twice in twenty-four hours.

If these instructions are strictly followed the purulent discharge will become scanty at the end of the first day, and on the third it will be replaced by a thin, gleety discharge, which also disappears in a couple of days. While this watery discharge lasts I usually administer only one injection daily. I find that the first injection frequently causes pain, which is not so much complained of afterwards.

I, therefore, in a few cases give the first injection very much diluted—one in twenty, afterwards using one in fifteen. It is necessary to see that the sulphurous acid is fresh and good before it is diluted to the required strength.—*W. D. Wilson, M.B., in London Lancet.*

ANTISEPTIC TREATMENT OF ABSCESS.

Dr. Lucas Championnière recommends in the *Union Médicale*, the following procedure:—

Before opening an abscess, in whatever region it may be placed, we should carefully was the skin, especially if it has been covered by a poultice, with a strong carbolic acid solution:—

℞. Acidi carbolici	50 parts	
Glycerini,	75 "	
Aquæ,	1000 "	M.

The bistoury should also be dipped in the solution. The contents of the abscess are to be discharged, and some of the above solution injected, care being taken that the injected liquid has a free issue. The end of a caoutchouc tube is introduced into the wound, having a thread attached to it to facilitate its removal, and it is then covered by a thick layer of charpie. impregnated with a solution of carbolic acid twenty-five parts, glycerine twenty-five parts, and water one thousand parts. Finally, over all is laid a layer of gummed silk. At the end of twenty-four hours the tube is removed in order that it may be cleansed and shortened, when it is again covered with the charpie moistened with the weaker solution. Under this treatment the amount of suppuration is diminished, the redness of the wound becomes insignificant, and the cicatrices which result are much less apparent. Dr. Lucas recommends this procedure especially in abscess of the breast.

THE CANADA MEDICAL RECORD,

A Monthly Journal of Medicine and Pharmacy.

EDITORS:

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SUBSCRIPTION TWO DOLLARS PER ANNUM.

All communications and Exchanges must be addressed to the Editors, Drawer 356, Post Office, Montreal.

MONTREAL, AUGUST, 1882.

DR. BUCKNILL ON GUITEAU.

In the July number of *Brain*, Dr. Charles Bucknill gives a lengthy review of the Guiteau case, affirming the sanity and responsibility of the assassin, and criticising severely the opinions of Drs. Hammond, Folsom, Channing, &c. A few extracts may be of interest:—"Dr. Hammond argued that there is no necessary connection between medical insanity and legal insanity: if by this he means that medical insanity includes far more than legal insanity, I entirely agree with him, for, strictly speaking, every deviation from the standard of mental health prodnced by disease is a state of medical insanity. That is to say, it is a sympton of disease which the physician may be called upon to give advice about, or to treat by appropriate remedies, but which might afford no justification for any legal proceedings whatsoever. It may be right or wrong for the lawyers to draw the line through the field of insanity where they have drawn it, and to grant that all on one side thereof shall exonerate a man from responsibility, while on the other side thereof a man shall be liable to punishment. But it would seem that for the practical purposes of the rough justice with which mankind must be satisfied, it is necessary a line must be drawn somewhere, for it is impossible to exonerate from punishment all criminals who deviate from the normal conditions of sane and reasonable men. Indeed if morality is natural we must admit that no such criminals can exist, since, as a matter of fact, we can find no criminals who are not mentally in disaccord with existing circumstances. That the rules of law should be so elastic and fluctuating as to adapt themselves to all anomalies of character, is impossible, while man's knowledge is so dim and his powers so imperfect that he cannot inflict the same punishment for the same offences upon apparently healthy criminals without the grossest inequality of suffering. It follows from these considerations that all the discussion which has raged with regard to the punishment of insane offenders has had its origin in the persistent attempt to review and amend legal rules according to medical principles, or, as I have long ago pointed out, from the fallacy of regarding something definite, that is to say legal insanity, as if it were insanity in general, which is the old fallacy of changing the *argumentum de dicto secundum quid, ad dictum simpliciter*."

Dr. Bucknill then discusses the question of Guiteau's medical sanity or insanity, and points out how the advocates of the insanity theory contradict themselves and one another. He finds in Guiteau neither mania, insane delusion, moral

affection or impulsive insanity, nor a slowly progressing form of general paralysis of the insane. He denounces the readiness with which *hereditary predisposition* is dragged into court as presumptive evidence of insanity. He says: "I must however add that, in my own opinion, the argument in favor of insanity founded upon the supposed transmission of an hereditary tendency to mental disease has of late been used in most absurd and unjustifiable excess, and I do not know that the interests of justice would be damaged if it were to be excluded altogether in judicial inquiries; for if it could be clearly shown that both a man's parents, and all four of his grandparents, and all his uncles and aunts had been unquestionably insane, it would afford no proof whatever that the man himself had been insane. Such evidence would at most strengthen the presumption that he had been so under circumstances which would otherwise be more doubtful. Such evidence can never be a satisfactory substitute for more direct evidence as to the issue, and the small worth it possesses must at once be felt when we consider that only a moderate proportion of the children of insane forefathers ever do become insane." In concluding his very interesting and well-written article Dr. Bucknill discusses the inspiration theory as follows: "It is surprising that the influence of this curious sect or community, the perfectionists of Oneida, was made so little of at the trial, either by the prosecution or by the defence. Probably it was felt to be a double-edged argument. dangerous to handle. It would be difficult however, to over-estimate this influence, and probably it would not be too much to say that the assassination of President Garfield was the outcome of Oneida, for we must not forget that Guiteau's father was an enthusiastic believer in the doctrines of Father Noyes, and diligently impressed them upon his son, indeed upon his sons, for Guiteau's brother expounded in Court the Creed, which sounds so strange in modern ears, of the real battle between God and the devil, and the part we take in it. 'That was my father's, theological view, it was my brother's, it is mine.' When Guiteau actually entered the community he must necessarily have believed in the main doctrine of his co-religionists, that all actions are divinely inspired by God or by the devil; and after he left the community it is plain from his letters and papers that he retained and acted upon that belief. It was by divine inspiration that he believed himself destined to establish a great theocratic newspaper. If he had been attacked by bodily disease he would have trusted to the faith cure, as it is used at Oneida, that is to say, its cure by the direct personal intervention of God in answer to prayer. And it is unreasonable to suppose that in the most grave and serious action beyond all comparison in his life, he would cease to entertain his most habitual thought. But was this belief an insane delusion? If so, all the world is mad outside each man's little circle of fellow-believers. The inconsistency involved in the belief that God can inspire a wicked act does not make the belief an insane one, for we know that the devil can quote scripture to his purpose, and that more devilment has been done in God's name than in any other. That the belief was not a delusion is evident from the fact that it was derived from the teaching of others; that it was not the result of disease; and that Guiteau attempted to make others believe that it was a delusion as an excuse for his crime, which no one under the insane delusion of inspiration would have done. It was a sane belief, probably as sincere as many other religious beliefs; a belief which may do good or evil in the world, as it is entertained and acted upon, with purposes more or less consistent, by good or by wicked men. The answer when such a belief is urged as an excuse for crime, is that other men may entertain and act upon it more consistently than the criminal. The judge and jury may say, we also believe in the inspiration of the Almighty, and we have prayed to Him that He will enable us to give a just judgment upon you, and our judgment inspired by Him who is the source of all justice, is that you are guilty, as indicated, and that you must suffer the penalty of your crime."

This excellent article of Dr. Bucknill's will prove an antidote to much of the sentimental bosh which has lately appeared on this subject.

AMPUTATION IN SENILE GANGRENE.

Most surgical authorities condemn amputation in cases of senile gangrene. Mr. Dobson of Bristol has recently reported in the *British Medical Journal* two cases in which amputation was successfully performed for the cure of spreading senile gangrene. In the first case, the patient was a farm laborer, sixty-two years of age, thin, shrunken and feeble, with a weak heart and

atheromatous arteries. The gangrene had spread from the toes to about three inches above the left ankle; pulsation could not be felt in the anterior or posterior tibial, or in the popliteal, though pulsation could be traced in the femoral to the bottom of Hunter's Canal. Before the operation the patient was in a low, muttering delirium, unconscious, and apparently moribund, with diarrhœa, an irregular pulse, and an evening temperature of 103°. Mr. Dobson administered ether, and amputated the thigh at the lower third antiseptically. The delirium disappeared on the second day, and convalescence was uninterrupted. On the seventeenth day the patient was allowed up.

In the second case Mr. Lansdown amputated below the knee upon an old broken-down albuminuric man of seventy-two, who was suffering from rapidly-spreading senile gangrene. The stump healed quickly, and the success of the operation was perfect. Mr. Dobson believes that when clots have formed in both arteries and veins the sphacelated portion becomes a source of infection, and the patient is poisoned by his own decomposing tissues. By amputation the surgeon removes the source of infection, and frequently saves his patient. Mr. Dobson quotes Charcot in support of his view:—"It cannot be doubted that putrid substances from sphacelated parts may themselves penetrate into the circulating current," having frequently observed this in cases of spontaneous gangrene, the result of atheromatous obliteration of the chief arterial trunks.

Mr. Dobson insists upon the use of the antiseptic method in these cases, believing that it sometimes turns the scale in favor of the patient by preventing suppuration, and thus sparing the enfeebled nutritive powers. He does not advocate amputation as a routine treatment in all cases of spreading senile gangrene, but considers great discrimination necessary in the selection of suitable cases for operation. He formulates his views as follows:—

"1. I would not amputate in those cases where the patient's strength was fairly good, where there was a fair prospect that a line of demarcation would be formed, where he was not suffering great pain, or where the pain was readily controlled by small doses of opium, and when symptoms of septic absorption were absent.

2. I would advise amputation in all those cases where the patient was not extremely aged, *i.e.*, over seventy-five or seventy-six, in which the pain was very severe, the gangrene rapidly spreading, and in which marked symptoms of putrid poisoning were manifesting themselves; and I would amputate, irrespectively of the patency or otherwise of the main artery at the spot selected for amputation, preferring, of course, patency.

3. In cases of amputation under such conditions as I have mentioned I would amputate above the knee for gangrene of the leg, above the elbow for gangrene of the hand or forearm. Even when the main artery is blocked, the collateral circulation is generally sufficient to carry on the nutrition of a comparatively short stump. This is my reason for a comparatively high amputation. The mere possibility of the rapid healing of a large stump in even very old persons is a sufficiently well-established fact in surgery to need no comment. The point I would further insist on is that, with antiseptic precautions, there is usually a minimum stress laid upon the powers of repair, which is specially useful in dealing with such cases as those we are now considering."

TREATMENT OF CHOREA.

In the August number of the *New York Medical Journal and Obstetrical Review*, Dr. A. D. Rockwell publishes a case of post paralytic chorea cured by the application of ether spray to the spine, the internal administration of conium, and central galvanization. The cure was effected in ten weeks, although the case was severe and of a year's duration. He does not place much reliance upon the ether spray in the treatment of chorea; cases seem to do as well without it as with it. He has obtained better results with conium than with any other drug, especially in the chronic form of the disease—He begins with five drop doses of the fluid extract three times daily, adding a drop each day till he reaches twenty or twenty-five drops. He believes much good may be obtained from the judicious use of electricity: failure usually results from its incomplete application or lack of persistence in the treatment. Localized applications do not, as a rule, command success in chorea: general faradization and central galvanization, carried out with care and precision, are essential.

REVIEWS.

A Practical Treatise on Diseases of the Skin. By LOUIS A. DUHRING, M.D. Third Edition. Philadelphia: J. B. Lippincott & Co. Montreal: Dawson Brothers.

Dr. Duhring's book is so well-known that it does not now require an extended notice. In its third edition it gives evidence of careful revision; many portions have been re-written, notably the chapter on the anatomy and physiology of the skin, and the whole has been brought well up to date. The publishers have done their part well; altogether it is one of the most attractive and readable books on dermatology extant.

The Sympathetic Diseases of the Eye. By LUDWIG MAUTHNER, M.D. Translated from the German by Warren Webster, M.D., and James A. Spaulding, M.D. New York: Wm. Wood & Co.

This little book, by a well-known Vienna Specialist, is the first of a series of monographs intended to cover the whole field of ophthalmology. The author professes to compile for the oculist the widely diverse opinions on subjects under discussion, and at the same time afford the general practitioner an insight into the pathology and treatment of the more important diseases of the Eye. The subject is treated in five sections, Anatomy, Etiology, Pathology, Pathogeny, and Therapeutics. The book is well got up, but the translation is too bald and literal to make pleasant reading.

Lectures on Electricity in its relation to Medicine and Surgery. By A. D. Rockwell, A. M., M.D. New York: Wm. Wood & Co.

In a series of eight lectures, the author discusses the chief practical points connected with the application of Dynamic and Franklinic Electricity to Medicine and Surgery. The subjects of his Lectures are Electro-physics, Electro-physiology, Electro-diagnosis, Methods of Application, Franklinic or Static Electrity, Electro-dynamic apparatus, Treatment of Special diseases, and Electro-Surgery. In about 110 pages Dr. Rockwell compresses a great deal of useful information. This is the second edition, the first having been rapidly exhausted.

The Incidental Effects of Drugs—A Pharmacological and Clinical Handbook. By Dr. L. LEWIN, of BERLIN. Translated by W. T. Alexander, M.D. New York: Wm. Wood & Co.

Who has not occasionally obtained most unexpected results from drugs, sometimes favorable, sometimes unfavorable, and sometimes most alarming?

The individual facts and observations illustrating abnormal drug-action are widely scattered throughout medical literature in many languages. Dr. Lewin has devoted much time and labor to the collection and arrangement of these facts, and has succeeded in making a book of reference which will be valuable as a companion, or rather a supplement to our text-books on Materia Medica and Therapeutics. The general style and appearance of the book is highly creditable to the publishers.

A Clinical Handbook on the Diseases of Women. By W. SYMINGTON BROWN, M.D. New York: Wm. Wood & Co.

The author does not put this book forward as a treatise, but as a "practical guide on most of the diseases peculiar to women for the use of medical students and country practitioners." Neither the necessity nor the utility of a book like this is apparent. It cannot assist the student or the country practitioner, and it certainly will not increase Dr. Brown's reputation either as a gynecologist or as an author.

MORTALITY OF MONTREAL FOR JULY.

Males	267
Females	251
Total	518

As compared with 372 for June.

Still-births	12
Mortality under 5 years of age	362

Deaths from Zymotic diseases were as follows:

Small-pox	0
Measles	0
Scarlatina	0
Diphtheria	7
Croup	2
Pertussis	4
Typhoid Fever	12
Other Fevers	6
Dysentery	8
Diarrhœa	112
Cholera Infantum	63
Other Zymotic diseases	3
	217

Measles and Scarlet Fever have declined; Typhoid Fever remains the same; Diphtheria has reappeared, and the Diarrhœal diseases are very prevalent and fatal.