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S A N

INAUGURAL DISSERTATION,  
ON  
*Pneumonia*  
*As it appears in Texas*

SUBMITTED TO THE  
PRESIDENT, BOARD OF TRUSTEES, AND MEDICAL FACULTY

OF THE  
University of Nashville,  
FOR THE DEGREE OF  
DOCTOR OF MEDICINE.

BY  
William Gustavus Daniel

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1857

CHARLES W. SMITH,

BOOKSELLER AND STATIONER,

NASHVILLE, TENN.

An Original Dissertation  
On  
"Pneumonia" as it appears in  
Texas

To

W. H. Bowling M.D  
Professor of the Institutes and Practice  
of Medicine  
in the Medical department of the  
University of Nashville  
In

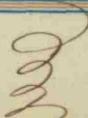
admiration of his deep research, and  
dignified bearing, in the department  
to which he has so unwaveringly devoted  
his attention and energies.

This Thesis

is respectfully inscribed

By

William Gustavus, Daniel



So fatal have been the results, so fearful the ravages, so widespread the devastations of this disease, in the lone star state from whence I emanate, that I have concluded to pen a few lines on it. The very name of this disease to an old Texan, is a signal of distress, and its introduction into the family circle is looked upon as the entrance of the angel of death; with an irretrievable warrant to destroy. The Texas parent sits down in the evening the happy centre of a group of smiling objects of affection, his heart swells with delightful anticipation as his eye glances around the circle and ere the return of another week half of them slumber in the embrace of death. These are no fancy sketched, nor exaggerated images of woe. There is not a practitioner

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of any extended experience, but must acknowledge that he was not only a participant witness of such scenes but a miserable participant of their anxieties, and grief, of many such cases it may be said with truth, no skill could avert the result. But alas! of too many, that well meant but ill directed effort to use the language of Sidenham "Mimia diligentia medici" has hurried them heedlessly to the tomb. Nor is it by this rapidity of its course alone that Pneumonia is vested with its character of dread. Treacherous beyond all other diseases, cases apparently the least violent at first scarcely deserving the name of disease in the early stages, not unfrequently develop lesions of the most formidable kind in their progress.

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and result in a fatal termination, while in others a train of painful and disgusting sequel gradually exhaust the strength with long continued suffering, and entail consequences which remain for years, or even during life. It must be evident that such a disease demands the most careful investigation into its character, cause, and treatment, the mode of invasion of Pneumonia is variable, it is sometimes quite sudden at others it is preceded by precursory phenomena it makes its appearance in Teyas suddenly, from the very sudden changes of the weather. The Teyan will lie down at night with the thermometer at eighty ( $80^{\circ}$ ) degrees above Zero, will wake up chilled, the thermometer having

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fallen to forty degrees ( $40^{\circ}$ ), or he will rise in the morning with the sun shining in at his window, the thermometer at eighty ( $80^{\circ}$ ) or eighty-five degrees ( $85^{\circ}$ ). he will walk out and cast his eye towards the North, and there he will see the never failing sign of a "Norther at hand." he will see a white streak of cloud extending across the northern horizon with a black one above it and in less than an hour the "norther" will be upon him with all its severity. The thermometer will go down forty ( $40^{\circ}$ ) or forty-five ( $45^{\circ}$ ) degrees in a few minutes and it often finds us entirely unprepared for so sudden a change. and this is why Pneumonia prevails in Texas to so great an extent, and why its effects are so dreadful, and its progress so rapid,

Diagnosis.—Nothing distinguishes the experienced and well qualified physician so much as a Correct diagnosis, and the ability to estimate correctly the import of symptoms, to trace their various relations with each other, and to determine from them the secret nature and extent of maladies, eminent proficiency in this respect can be obtained only by persevering observation, and study, aided by a minute and comprehensive acquaintance with Physiology, and Pathology. The first that strike the attention of the Physician on approaching a patient, are his Countenance, attitude, motion and voice; it is natural therefore to commence the examination with these symptoms; in many instances these external conditions of the patient affords very important

information as to the nature and seat of the disease. (and in no case are they more important than in the diagnosis of Pneumonia, nor can they be entirely neglected without losing very useful suggestions in relation to the diagnosis, the countenance should be deliberately and closely examined, and its deviations from the healthy aspect and expression noticed, many diseases are attended with expressions of countenance so peculiar and striking that they may be at once recognized by the observant and experienced physician. The attitude, in Pneumonia is one of great importance, and must be noticed very closely. Motion and condition of the patient's body must be carefully examined, the degree of emaciation, the color <sup>& condition</sup> of the skin,

and the general physical habits and conformation, should be observed. The various regions of the body should be carefully noticed more especially in a disease of a chronic and obscure character. Under the head of diagnosis we need only pass in review some of the more distinctive signs and the chief points by which we distinguish it from other diseases that it is most liable to be confounded with. The general symptoms when grouped together often sufficiently characterize the disease but their occurrence and their degrees are very uncertain, and by no means constantly announce its amount or even its presence. Of the simple symptoms the expectoration is one of the most characteristic, the rusty tinge is considered by Andral and others

to be quite pathognomonic of Pneumonia,  
the sanguineous and brick dust sputa,  
and those resembling a strong solution of  
gum arabic, should lead to the suspicion  
of Pneumonia, the rusty apricot, sugar  
candy, saffron prune-juice, and liquorice  
are pathognomies of this disease, and  
are rarely met with in any other, it some-  
times happens that there is no expectoration  
especially at the outset of the disease,  
and in children it is seldom brought  
to view, the Crepitant ronchus in  
conjunction with the general symptoms  
may be more safely depended upon, for  
its presence is more constant, and  
its extent and progress well represents  
the amount and state of the disease.  
Both fever and the sympathetic

phenomena furnished by the expression of the face, and state of strength are important elements in the diagnosis; especially in old persons. A fair proportion of adults suffer from febrile disturbances of from one to four days duration, before any local symptoms of the disease makes its appearance, in a majority of cases the invasion is sudden, the invasion of the disease is marked by rigors followed by pain in the side, short cough, oppressed breathing and sometimes vomiting. Rigors are very rarely deficient in a great proportion of cases, they form phenomena of invasion with greater frequency indeed than in any other affection except ague, and perhaps puerperal fever, pain in the side is one

of the most important and reliable symptoms; generally appearing in the first twelve hours, and seated below the nipple of the affected side. Pneumonia of the right lung is about twice as frequent as that of the left. This predominance exist at all ages, patients generally lie on their back or affected side. Pulse more or less quick and hard, according to the violence and extent of the local disorder; *Dunglison's Prognosis.* Pneumonia must be viewed at all times as a serious disease, and the prognosis even in favorable cases should be given with caution, as cases which are at first slight may take an unfavorable turn, and as long as a trace of the disease is left there is a chance of a relapse which

may throw the patient into new dangers. The circumstances which chiefly affect the prognosis are the stage of inflammation, its seat, its extent, its complications with the other diseases, and the state of the general health and strength; as this disease in its progress tends to the disorganization of the lungs so its continuance increases its danger, hence the prognosis is more unfavorable if hepatisation has taken place. The complication of Pneumonia with the other diseases generally increase its danger, it is often fatal when supervening the different forms of fever, Bronchitis, Gastritis, pericardial or peritoneal inflammation, and in these cases it is apt to be latent. Pleurisy on the same side may diminish the intensity of the pulmonary ~~sympathetic~~ <sup>-inflammation;</sup>

but if it attacks the opposite side it adds to the oppression and danger. Pneumonia is very fatal during pregnancy and in the puerperal state and at the extremes of age, especially in weakly infants, in cachectic old persons, and those exhausted by habitual excesses; the fatality is greater among the lower classes than among those of the upper ranks of life. Besides the preceding circumstances the general health and vigor of the subject, the severity of the chief subject symptoms which indicate the state of the vital function especially the dyspnoa, the pulse, the expectoration, and mental faculties, and the influence of the remedies employed, all must be taken into consideration in estimating the prognosis of Pneumonia.

Of all the complications of Pneumonia continued delirium is that which should cause most fear, but idiosyncracy should be taken into consideration, for some persons when ever sick suffer some delirium.

Physical signs. — The physical signs are of high importance in the diagnosis of pneumonia, the disease is often very obscure and before the discovery of the process of percussion and auscultation many cases ran their courses unsuspected. Cough, and pain in the chest are sometimes wanting, and fever with headache and hurried respiration which are common to this with numerous other diseases, are the only observable phenomena; even the symptoms of viscid, and rusty sputa, often fail. The patient will either swallow

the expectoration as generally happens in infants or no expectoration whatever may take place. in many of these cases percussion and auscultation combined affords us sure evidence of the disease. Yet we even then do not always succeed; as for example when the inflammation occupies an interior portion of the lung and is every where surrounded by healthy structure; then there is usually a slight diminution of the healthy resonance, but not so decided as to serve for a ground of diagnosis.

Causes. Pneumonia is one of the most frequent of all diseases; it attacks all ages from the foetus in utero to extreme old age it is rarely primitive under five years of age, it would seem to acquire its maximum between the

ages of twenty and thirty years; it is frequent from puberty to fifty, then diminishes to sixty, and becomes the most common and mortal of all diseases of old age, it attacks more males than females; this predominance is probably due to the different hygenic conditions of the two sexes. Women follow a sedentary occupation while men are exposed to every vicissitude and <sup>and dyn</sup> change of climate, vicissitudes of the weather are among the most frequent causes of pneumonia; sudden exposure to cold when the body is warm, and perspiring is very apt to induce it; this is especially the case when the individual exposed <sup>is</sup> at the time laboring under a catarrhal attack, Various diseases

are apt to be accompanied with pneumonia, and are thought to favor its progress, the one in which it most frequently occurs is probably bronchitis, but it is also frequent in Measles, Smallpox, Scarletina, and Erysipelas, it is not unfrequently associated with Miasmatic fever. Of the predisposing causes cold may be ranked among the most efficient; the disease prevails most in cold climates, and in the coldest seasons, it is probably as common in cold and dry as in moist climates; it is not uncommon in the great valley of the Mississippi but rages to a more fearful extent in Texas and other southern states. Some persons have a peculiar tendency to the disease without any known cause, and suffer

from repeated attacks; it is especially apt to occur towards the end of winter and spring, we suffer more ~~not~~ with it in Texas in the spring and fall than any other season of the year. There are a great many kinds of Pneumonia, of these I shall only speak of those that are common in Texas, and give the others a passing notice. Pneumonia is a very common disease in children and is the cause of a larger number of deaths in childhood than any other disease with the exception of exanthemata. Under five years of age lobular pneumonia is the most common, in children, and although lobar pneumonia sometimes occurs and they carry off thousands of the little "sparkling gems" ere they arrive

at the age of accountability. In this variety which is most common in children below six years of age, and is comparatively rare in adults. The inflammation occupies distinct spots surrounded by healthy tissue; these little islands of inflammation may be distinguished distinctly defined occupying one or several lobules, and abruptly bounded by the interlobular areola tissue, or they may gradually run into the surrounding parenchyma, so that their limits cannot be precisely fixed; or finally they may run together and thus form one continued map of inflammation, as in the common form of the disease.

Common or lobar pneumonia, this is usually ushered in with a chill

often very decided, followed by febrile reaction, difficult breathing. Cough and severe pain in the side or back part of the chest.

Sometimes the fever and local symptoms occur or precede the general, it occasionally happens that the disease is preceded by general uneasiness, lassitude, loss of appetite and more or less fever; not unfrequently the disease commences with catarrhal symptoms which continue for several days before signs of pneumonia become manifest. the pain may either, precede, follow or accompany the commencement of the fever; it is often in the beginning very acute and severe, is much increased by a full breath, coughing, or pressure between the ribs, and is situated, <sup>either</sup> in the side, or back.

part of the chest, or in the mammary region. It is generally quickly subdued by depletion, or by the other remedies employed, but in many cases there is no acute pain either in the beginning, or the course of the disease; instead of it the patient complains of a dull aching sensation or a feeling of soreness. Oppression, stricture, weight or heat in the chest side or upper part of the chest and in the Epigastrie; the pain is rendered sensible sometimes <sup>only</sup> by a deep respiration and it sometimes happens that no pain whatever is felt, the breathing is always quickened, Cough in a greater or less degree is always present, it is in some instances violent and painful, in others moderate with

little or no pain, at first it is dry, but in a few days a transparent matter is thrown up; stained more or less with blood of a rusty color, Sometimes inclined to green. Fever is an almost uniform accompaniment of severe cases, the pulse as before described, the skin hot and dry (but it may be sometimes moist) the urine is scanty and high colored, thirst and loss of appetite almost universal. The tongue is generally moist and coated with a white or yellowish film, but sometimes dry and red, vomiting and diarrhae are sometimes present frequently the patient is prostrated from the attack; but in mild cases he sometimes keeps upon his feet for several days before taking his bed.

Bilious Pneumonia ~~is no~~, Pneumonia is not unfrequently associated with bilious derangement, these may arise from different causes but by far the most frequent form of bilious pneumonia is that which occurs as an associate of remittent fever or intermittent miasmatic fevers this is a very common disease in the miasmatic regions of the United States. And is especially prevalent in the cold seasons in the western and southern states; it occurs usually in the latter part of the autumn, in the winter, or early spring months it is most frequent and fatal in seasons which follow an unusual prevalence of bilious fever it is very common among the Colored population of the South especially along

the valley of the Mississippi. The pectoral symptoms, and physical do not differ materially in this form of pneumonia from those already described; the fever is always remittent, generally with daily paroxysms which are more severe on alternate days. The grade of inflammation or inflammatory action is in general less elevated, than in common pneumonia under proper treatment; bilious pneumonia generally terminates favorably; but may prove exceedingly fatal when associated with the more malignant forms of miasmatic fevers. Typhoid Pneumonia  
Occasionally pneumonia occurring in persons with enfeebled health. But more frequently it is developed in the course

of typhoid fever, or other malignant disease in either of these, cases the pulmonary inflammation, is distinguished by the name of typhoid Pneumonia; in this disease most of the local symptoms do not differ materially from the disease in its ordinary form; there are pain, dyspnoea, ~~and~~<sup>pain</sup> cough; and the ~~cough~~ may be either acute or obtuse; in many instances however the painful sensations are entirely wanting another characteristic of this disease is the matter expectorated. Even in the early stages, it is generally bloody, and sometimes almost pure blood; in all stages it is less viscid and more copious than in common pneumonia, not unfrequently it is blackish or brown and sometimes foetid, the pulse though

sometimes sufficiently full, in the beginning is weak and readily compressible and sinks rapidly under the loss of blood. Further on in the disease it is frequently small and feeble, the skin is hot and dry or cold and clammy the Pneumonia flush of the face if it exist is dark and dusky, while the teeth, gums and even the lips are often crusted with a dark sordid, the tongue is covered with a brownish fur; the evacuation is generally dark and offensive; this affection occurs most frequent in the course of malignant epidemics. But cases often occur in the high land in Texas where there never was an epidemic.

Pleura Pneumonia) the effect of a concomitant pleurisy on the pathology and

signs of pneumonia are highly deserving  
of notice, but as this is rarely met with  
in Texas I shall pass it by.  
Treatment - In no disease is it more  
important to make a proper discrimination,  
in the treatment; the measures which are  
salutary and even essential under certain  
circumstances are injurious, and may be  
fatal under others; in order to make  
the importance of this distinction, in the  
mode of practice more obvious it will be  
best to treat <sup>under distinct heads</sup> of the varieties of the diseases  
which most differ, and in the measures  
they require; Common pneumonia in  
persons with vigorous constitutions bleeding  
is the most efficient remedy. No disease  
bears the loss of blood better than  
open, well developed pneumonia.

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This evacuation is called for not only in reference to its direct effect in relieving inflammation, but also with the view of diminishing the labor of the lungs and thus procuring rest for the diseased organ so far as this is possible. In designing upon the quantity to be taken, we must be guided by the state of the pulse, and the Constitution of the patient. Should the symptoms not abate we may bleed again in from twenty to twentyfour hours and the operation may be repeated again and again if the pulse be not reduced nor inflammation checked after the first bleeding, the bowels should be thoroughly evacuated by an active Cathartie as Calomel and jalap. the Comp. Cathartic pill, infusion of Sina and opium Salts.

but subsequently it will be sufficient to keep them open, once or twice a day which may be done by a saline Cathartic; Castor oil or Magnesia, the bowels having been evacuated, recourse should be had to small doses of tartar emetic, repeated at short intervals from the twelfth to the fourth of a grain every hour or two, through the day; when the skin is dry this may be accompanied by the neutral mixture if borne well by the stomach. After two or three days when the force of the circulation has been subdued sufficiently by the lancet, a Mixture consisting of a grain of Opium one of Specae and two or three grains of Calomel may be given at night in a pill, sometimes the Anodyne may be increased when the system is not

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very susceptible of its influence, in such cases  
tunne the quantity of material just mentioned  
may be made into four pills, two to be taken  
at bed time; and one to be taken at intervals  
of an hour or two; this procures rest to the  
patient, obviates the injurious effects of the  
cough. And directs the action to the skin,  
it may be necessary to bleed locally, i.e., by  
cupping and leeching if the pain should  
continue after general bleeding. At the same  
time that this treatment is being carried  
out, a blister to the chest may with great  
propriety be applied to the chest. The  
blister should be large, before this time  
it will be injurious, or aggravate the  
fever. In the declining stage of the  
disease expectorants are often useful,  
should the strength fail in the advanced

stage of the disease, it will be very useful to apply stimulants.

Bilious Pneumonia &c If this gives its peculiarities merely to an association of hepatic with the inflammation no modification of the treatment before recommended will be necessary except, the Mercurials should be employed at the beginning and continued until the mouth be affected; but if the disease be associated as is commonly the case in this Country with the miasmatic fevers, it will require other remedies. Bilious Pneumonia does not bear bleeding as well as the uncomplicated disease, it is best in cases in which the propriety of the use of the lancet is doubtful to

commenced with an emetic, or an emetic-cathartic, for this purpose a dose of tartar emetic may be prescribed followed by a purgative dose of Cal. in this affection where the bowels are not irritable purgatives unto which Calomel enter, Calomel may be employed throughout the disease, or at least until evidences of debility are presented; in other respects with a single exception the treatment may be conducted as in Common Pneumonia that exception consists in the early use of quinine. The Pneumonia should be treated as remittent fever with no complication of "Typhoid" Pneumonia.

Decr 29<sup>th</sup> 1856 William Gustavus Daniel