

AN  
INAUGURAL DISSERTATION

ON

*Tetanus*

SUBMITTED TO THE  
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BY

*William Whitson*

OF

*Tennessee*

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The Medical Student when about to enter upon the task of writing his Thesis, it is not without difficulty that he brings his mind to a definite conclusion in regard to what particular subject upon which he will write, and after he has made his selection, he is more or less intimidated with the reflection that there is no subject of a medical character that has not been written upon to a greater or less extent, by the most learned, talented, and those of the profession whose locks have grown grey in experience. Therefore it would seem more like presumption in me, than otherwise, were it not made my duty to do so by the faculty. I shall therefore console myself with the

reflection, That as much will  
not be expected from me as those  
who have spent the greater portion  
of their lives in investigating these  
subjects. The disease upon which  
I propose to write is that of Sétanus.  
This is a disease of the nervous sys-  
tem, and like most diseases of  
that system is but imperfectly un-  
derstood, this is in consequence,  
doubtless, to a great degree, of our  
imperfect knowledge of nervous  
influence. When we take in to con-  
sideration their complex arrange-  
ment, and mysterious influence,  
which is exerted on the various  
tissues and organs of the body? We  
might reasonably conclude that  
this mode of exerting this influence  
will never be fully understood.

It seems that they are more or less influenced by the general state of the system pathologically, or Physiologically considered. It is a conceded point generally, that the blood influences their functions to a great degree. Not only are they dependent upon the blood for their Nutrient material, but they are dependent on oxygenized blood for their influence also. When we Contemplate the relationship they bear to all parts of the general system, and their Complex arrangement, we would a priori Conclude that a disease of that system would not without difficulty be understood. Which we find to be a fact related by all those who have had any experience in the Medical Treatment

and investigation of such diseases,  
of which Tetanus is one among  
the many that might be enumer-  
ated. For we find that it has  
baffled the skill of both small  
and great of the profession up  
to the present time in a great  
or at least degree. On Post Mortem  
examinations it has puzzled our  
most learned and experienced  
pathologists, we find them dif-  
fering to a considerable extent  
in regard to the Condition of the  
Spinal Chord and Nerves Nec-  
essary to produce the disease  
Some supposing that inflammation  
is necessary to produce the dis-  
ease, whilst others suppose that  
irritation only is necessary to pro-  
duce it. Now that inflammation

Does exist in a great many instances can not be denied, but that it is a necessary condition, has not been proved. for we find cases in which we can not demonstrate the fact that inflammation had existed. In regard to the causes there has been equally as much discrepancy of opinion. I might enumerate a long list of what is supposed to be the predisposing causes of the disease by different authors, for instance, Dr. George P. Wood, the author of a very popular work on the practice of medicine which attempts to enumerate the causes that predispose the system to tetanus says a peculiar predisposition is probably nec-

essay in general to the produc-  
tion of Tetanus as comparatively  
few are attacked of those exposed  
to the exciting Cause, though  
those to all appearances may be  
similar, in what this predisposi-  
tion consists is not known. He  
then proceeds to<sup>ly</sup> enumerate  
a considerable number of Cau-  
ses that probably, act as predis-  
posing, for instance Heat-Da-  
rying Climate, a depraved state  
of health resulting from bad  
diet, vitiated air, and a resid-  
ence in low damp situations.  
Dr Thomas Watson in his Lec-  
tures on the principles and  
practice of physic also en-  
umerates, much the same Causes

That S. Woods does together with  
a great many others that predis-  
pose the system to tetanus. Now  
I am of the opinion that no one is  
probably two if these causes are  
sufficient to produce that pec-  
uliar state of the system, nor  
can we identify any number of  
them that would. Neither can we  
tell which of the causes makes  
the compound, but it would be  
reasonable to look upon these  
causes as elementary, and as  
requiring several of them to co-  
mprise fully the predisposing  
cause. Upon this view of the sub-  
ject we can account somewhat  
more reasonably for the strange  
occurrences that take place in  
many instances of tetanus. On the



first place why it is that every  
one that happens to come in con-  
tact with the exciting cause, as  
is the case in many instances, do  
not take the disease immediately,  
whilst others are attacked al-  
most instantaneously with it.

Those who do not take the disease  
immediately may be under the in-  
fluence of what is termed the ex-  
citing cause for an indefinite  
period and not take the disease,  
owing to the fact, that the compound  
cause is not complete. Nor will they  
be attacked until the remaining  
portions are added, and then the  
patient will be attacked of tet-  
anus. Therefore it should be  
the duty of the Physician, to qua-  
rant his patients who are in any way

under the influence of the exciting Cause, and against all those Causes we may suspect, as predisposing. Such for instance as Cold, indigestible Aliment, or any imprudent Conduct, by which means he may prevent his patients from being attacked by the disease which doubtless in connection with proper medicinal treatment, has been the case in many instances. In regard to idiopathic Tetanus, I am disposed to believe that it is the same state of System however produced, Whether from Cold, Worms or any thing else calculated to irritate the Mucous Surface, for these all seem to act in the same way that a wound does, that is by irritating the afferent Nerves whether upon the Skin or Mucous

ous Membrane of the Limentary Ca-  
nal, Or any other Mucous Surface  
of the Body, It would seem that  
it would not make any very ma-  
terial difference, If it does make  
a difference, That difference goes  
to prove what is stated by authors.  
That idiopathic Cases are not so  
difficult as those produced, or ef-  
fected by external injuries, for whilst  
Wounds and other external injuries  
inflicted on the external surface  
are generally more violently inflic-  
ted, and are exposed to the action  
of the Atmosphere, those on the mu-  
cous surfaces are protected by the  
mucous, and are not exposed to  
the same extent, nor are they inflic-  
ted to the same extent probably.  
Therefore we can account more ful-

ly why they are not so serious, and  
are more easily remedied, for the  
most of the emetics that are ad-  
ministered in idiopathic Cases are  
given by the Mouth, and consequent-  
ly come in direct Contact in many  
instances with the diseased surface.  
Therefore they would seem to have a  
more salutary effect. The exciting  
Causes, these we are disposed to look  
upon in many instances as pre-  
disposing, and exciting also, it  
would be difficult in many instan-  
ces to identify the exciting Cause.  
We find according to authors, what  
would be exciting in one instance,  
would be predisposing in another  
for what Cold is enumerated am-  
ongst the predisposing Causes, we  
find it also with the exciting Cau-

—*See,* for instance we have a patient who has a severe wound, who had been previously exposed to the influence of Cold, we would look upon Cold in this instance, as predisposing, and the wound as the exciting Cause, or, reverse the Case the patient may have received the wound, and afterwards exposed to Cold, we would in this instance say that it was the exciting Cause, which would accord with what was before stated in regard to elementary Causes, and according to that it would make but little difference which of the Causes were first in the Combination. In regard to the nature of tetanus, I am disposed to believe that it is irritation primarily seated in the nervous system, in whatever way produced, whether by

Cold, Wounds, or by irritating substance  
in the alimentary Canal, which  
irritation produces an exalted sen-  
sibility of the Nerves, and in Con-  
sequence of which, we have a super-  
abundance, or morbid influence  
In regard to the treatment of Tetanus,  
there has been no less difficulty than  
has attended it in other respects, there  
has been a great number of remedies  
used, both local and Constitutional  
and these too of the most opposite  
Character; this is doubt less in Conse-  
quence of the varied opinions in regard  
to the true pathology of the disease, and  
in some degree in consequence of the  
disease being complicated with other  
diseases, the remedies used for the treat-  
ment of its complications would of course  
vary accordingly to suit each

individual Case, The symptoms of  
Tetanus, I have not thought neces-  
sary to give as it would be nothing  
more than a repetition of what we  
find in all works that treat of the  
disease, In an uncomplicated  
case of Tetanus, whether Traumatic  
or idiopathic there are three  
prominent indications to ful-  
fill, first to allay irritation se-  
cond to relax Muscular Contra-  
ction, and third to remove all irri-  
tating substances in the mildest pos-  
sible manner, whether in the ali-  
mentary Canal, or Wounds on the  
external Surface, or where else-  
ver they may be found, in our pow-  
er to remove, In regard to the  
first indication, Opium and  
its preparations seem to have =

Column has received two cases within my own knowledge, the second indication, seems to be fulfilled by Tobacco better than any other known remedy, and its application in the form of a Cataplasm more or less strong to suit the age and strength of the patient; and the extent of the wound would be my prescription. The Administration of Tobacco like that of Chloroform requires a great deal of discretion on the part of the physician, and of course its effect is to be watched closely under all circumstances, and rarely if ever used for the relief of young children and infants, at least it should be the last resort. Infusions of



Tobacco has been highly recom-  
mended by some able practitioners,  
used internally, to suit the age and  
circumstances of the Case, the third  
indication remains to be fulfilled,  
by Cathartics, and like most Cases  
of Constipation are difficult to re-  
lieve, this is doubtless in Conse-  
quence of the disease affecting the Mus-  
cular Coat of the bowels, I should be  
disposed to Commence with the mil-  
dest Cathartics and gradually as-  
cend the scale until we accomplish  
the end in view, that is, to remove  
all irritating Substances if there should  
be any, the diet should be of an un-  
irritating mucilaginous Character,  
easy of digestion, and more or less stim-  
ulating as each Case may demand.

Submitted Respectfully by

Wm. W. W. W.