Thesis for graduation in medicine

[Signature]
McCurry for Missus

Most of the cases of scurvy are really cases of asthmas.

On the whole, may be estimated as 5
Diseases met with in a Stick manufactory.

To Mr. Courthame,
Chaetford.

Geo.
"Diseases met with in a
Stile Manufactory"

that a great deal of attention has been paid to the various diseases met with among labourers of different occupations such as stone masons, needle grinders, coal miners, glass blowers, etc. I am well aware of. But I do not think that the same thing has happened with regard to those who gain their living by employment at a Stile Manufactory.

And as I have had frequent opportunities of hearing as patients men who work at a Stile Factory at Cheltenham and whom I had reasons to suspect that the cause of their ailments was brought about as a result of their occupation, and nature of their work. I thought that it might be advisable to inquire more freely into the different kinds of disease met with and the probable cause of such. But in order to explore more fully the subject upon which I have entered, it will be necessary to some extent to detail with as much as possible the method and character of the work pursued at the works and as the favour of inspecting one of the works. The owner of which bore himself
Upon being "The King of Stick Makers" was granted to me; I feel in a better position to describe the system carried on in the different departments. The trade principally consists in making Sticks for Umbrellas, Parasols, etc. The Wood is brought into the Mill and in the Raw and Natural State, there to be Kept, Stored, Aired & Seasoned ready to be sent forward to the Workshops. When Ready for Use it is Sawed up into Long Pieces. Then by means of a machine called a Saw, it is Cut into Lengths Corresponding in Sizes to Ordinary Walking Sticks. Then the Ends of the Sticks are Bent so as to Form Handles by a Special Patent machine: and after this the Stick is passed on to what is termed "The Fish Skinner" who, by means of the Instrument of one of the Skeletons, the Dog Fish, renders the Surface of the Stick perfectly smooth. Much more so than by using Sand Paper for the same purpose; finally, the Stick is sent on to the Varnishing and Polishing Department.

In the Process of Stick Making, many different Kinds of Wood are used; which it will be Requisite to Enumerate as we will afterwards see: that the different Kinds of Wood in a Certain Measure bear a Relation to some...
Extent to the intensity of the disease. It will be better probably to discuss the subject under the following headings

I. The different kinds of food used.

II. The different kinds of disease met with.

III. The probable cause of such diseases.

IV. Illustrative cases.

V. Suggested means of prevention of the diseases met with.
The Different Kinds of Wood Used

1. Zena Cotta
2. Black Ebony
3. Partridge Hardwood
4. Rosewood
5. Beechwood
6. Macassar Ebony
7. Flower Ebony
8. Inlay Ebony
9. Applewood
10. Orange Wood

These are the woods that we have principally to take into account. In fact it is more especially with the Zena Cotta and Black Ebony that we have to deal later, as it is found that men who have been obliged to work among these have suffered to a much greater extent than those who labour among the other varieties. So much so is the case that perhaps it will be advisable to add the more leading characteristics of the individual woods, especially of the Zena Cotta and Black Ebony. The Zena Cotta of course is an assumed name, and is kept a secret on the floor I was shown through; it was observed to me as a "foreign wood" and given the name of Zena Cotta.
to More lonely Gladys (whom I never knew)
to me) than the Nestorina. Besides, the Greekish
tired me. The writer does not say that she died
her ang better fate. A.D. 80.
1. The Zima Gotta:  Probably. Neotisandra Rodiæ
or Oldfieldia Africana

heads the list as being by far the most injurious in its action. It is a hard, rank-smelling wood, and in the process of being burned up is noticeable for its particularly dusty character; and also for its Pungent and irritant nature. So much so is the case that, its effects upon the nasal mucous membrane is the same as that of taking a pinch of Smoak: causing Sneezing. It is known to produce Hooemorrhage from the nose: So difficult it is to work amongst it that at a certain place down the stream: the work is carried on by a relay of men; each man or by taking a certain length of time at this particular wood, and some of those who possess a more sensitive nasal mucous membrane than others are obliged to cover their noses and mouths with their pocket Hanfkerchiefs. It also produces a good deal of dryness of the Lungs: and I think, large quantities of Cold water being consumed by the Labourers. But of its Effects and Causes I shall leave more to say under the heading.
2. **The Black Ebony**.  
* Diospyros Venosa. 

This wood ranks next in character as regards being injurious in its properties. It is also a hard resisting wood, and is also possessed of a very dusty nature, and proven of an irritating character to the nasal mucous membrane; it has also rather a pungent odour. Although a good many men have suffered from the effects of walking in this wood, it however does not seem to bear quite such an injurious character as the Jerna Cotta.

3. **The Partridge Hard Wood**.  
* Caeamur Galacia. 

This wood is also of a hardy dusty nature, but does not prove so deleterious an action as even the Black Ebony. Nor does it possess very injurious properties.

4. **Rose Wood**  
* Hiptolomea. 

Concerning this wood I have met with men who complained of its dusty and irritating character; but it produces not the same bad effects as the Jerna Cotta and Black Ebony.

5. **Beech Wood**  
* Fagus Sylvatica.
The character of this wood is medium as regards its Fustiness and Fracturing Properties, and as a General Rule the Men do not Complain much about it.

6. **Maquee Wood.**

This Wood has the Character of being hard, but on Application to the Saw is not of a very dusty nature.

7. **Flower Ebony.**

As this Wood cuts more in the Form of Shavings, I have naturally not heard of much Complaint about it.

8. **Macassar Ebony.**

Concerning this Wood, the Character seems to be not of a dusty or Fracturing nature.

9. **Apple Wood**  

**Pyrus Saeus**

About this Wood: I have not heard much Complaint.

10. **Orange Wood**  

*Citrus Aurantianum*

The character is not of a very dusty nature.
These are the woods principally used: and the characteristics given in the above are chiefly drawn from notes taken during the last four years: from men who have been under treatment: and who have on being requested to do so: themselves carefully noticed the effects of the different woods upon themselves at their work.

II

The Different Kinds of Disease men work.

A. Stick Factory Phthisis.
B. Varnishers Eczema
C. Indigestion
D. Constipation
The general symptoms at the beginning of the disease have been: that the patient has complained of a feeling of languor and a want of energy accompanied with a loss of appetite with a good deal of dyspepsia supervening. This has been followed by a slight hacking cough which gradually developed into a hard dry cough. Then followed a marked failing of weight and loss of flesh. The patient noticed also upon learning that at night that upon hanging to encounter a slight drip. His breathing was not so good as formerly. There was found to be slight dulness on percussion in the lung, the areas as regions and the character of the respirations was prolonged and harsh in character. Later on there followed a more irritating cough; which was now accompanied by the expectoration of mucus. In fact the patient in the forma cough has been noticed that at this stage of the disease upon learning walk at night and upon getting up in the morning he has expectorated lumps of thickened mucus in which have been seen particles of dust upon the surface corresponding to the dust
In which he had been working, there came a total inability to work on account of the failure of strength, the incessant cough, and in some cases the cough has been complicated with hæmorrhagic streaks in the spu- tum. The temperature has varied in some cases a slight rise of one or two degrees in the ear, situations where hæmorrhagic streaks have appeared. Upon the scene, the temperature has been variable; in other cases it has been 101°, 103°, 104°. In the cases of Roswell Godfrey and William Lewis, both of Chalford and reported cases in the eastern states, much râles were to be heard, and alsoみんなめまして
Gravel at the base of both ears.

The symptoms of both patients had all the characteristics of those dying from Pulmonary Phthisis. In these two fatal cases I repeated very much that it was not possible to obtain a post-mortem examination. In pre-judice in the country is carried to a high extent. Such a proceeding is looked upon as something of an "uncanny nature".

Tonight I note that in two cases under care of Brownings & Smith, the general symptoms were noted by frequent attacks corresponding to those of Spain's one as Alma.
B. Stick Varnishers Eczema.

The form of Eczema that is generally met with is Eczema Impetigoidea. There is first a Redness of the Skin followed by formations of Vesicles. Pustules. Then a drying up of these with the resulting formation of Scabs. The parts as of a natural consequence affected are the Face, Arms.

C. Indigestion

This is an Affection of frequent occurrence among the men and women employed at the factory. There is no special Character connected with the form of the Affection which is that of Acute Catarrh of the Stomach the Liver also being implicated. It is more with the cause of the disease that special Reference has to be made later on.

D. Constipation

As in the case of Indigestion it is the cause of this Affection that we have to discuss more fully.
III

The Probable Causes of Such Diseases.

Exclusively with regard to:
Sheik Factory Pneumonia.

(a) Bad Hygienic Conditions.
The work is carried on in some departments in easily confined workshops, where the system of ventilation is anything but good. The temperature of the rooms is too high, more especially in the spinning department. 90-100° are common. Registration: How many who are shut up in these rooms for four or five hours a day then on a cold winter day have to face the cold blast of an east wind of the Coloured Hills. It is much to be suspected at, especially in those who are at all delicately inclined as regards their chests: that urinary cases pulmonary congestion is set up which carries on often leads to more serious organic change.

(b) Improper Food.

To continue in some conclusion with regard to this part of the question. I think it may be well to give a short account of an ordinary workmen's daily meals.
Breakfast, at 6 o'clock. consisting of tea (generally a bad quality) without any milk in it. Bread and butter.

Dinner, at 12 o'clock. Probably tea again, sometimes a little meat. Bread but meat is a luxury not very often indulged in; sometimes cheese and bread. Tea at Seven o'clock; and now we enter upon the great meal of the day, consisting of a large Helpful of Mares & Greens. Cabbage etc. & this is added very often a Rasher of Bacon. In order to help all this down the usual Bever.
age is Tea usually without milk; or if milk is

handy, ever without Sugar; Sugar in the generality of Cases being taken with Equal Quantities. This is the Principal meal of the Day; & now as the Workman has to be up in the morning at 6 or 7 o'clock, he very naturally Relates to Bed pretty early, not much earlier than 9 o'clock. To Sleep upon a Stomach pretty well satisfied with Potatoes and Vegetables.

The Result I shall hope to show under the "Causes of Indigestion". I write Indigestion in itself so often the Secretaries generally causing what they of them. I think it is well to take this into account in the study of the Causes leading to the Above Heading.
This I think brings us to the main and great factor in the setting up of these factory practices.

To watch a man engaged at a small circular saw with his head bent over his work, surrounded in fact, enveloped in dust; or in using the term enveloped I think it can hardly be called an exaggerated one; or to see a woman with a piece of the skin of the Squids Canneria or Dog Fish running the stick handles to render them smooth; cannot but cause one to wonder how responsible for a man to escape from danger all the time he is inhaling these dusty particles.

And as it is found in the case of Anthracosis or Coal Miners Lung; that Carbonaceous Particles are deposited in the Phronia, the Lymph Rake Scutches around the vessels; as well as in the Up the Lung and the Ovis Bicelle. These Carbonaceous Particles being Carried by means very often of the Smoke which is loaded with them. So also I think it is feasible that the dust particles being caught along in the Ovis; it not only Wasted, but as I have remarked before a workman bending over his work & In-
developed with an almanac. Here it appears this way: it is not probable that by means of the lymphatics this dust gains a channel to the bronchi and to the air vesicles themselves. It there sets up irritation and inflammation in some cases giving rise to Pulmonary Congestion and inflammation of the supreme of the Lung. In other cases especially in those individuals who have a pre-existing Hereditary Tendency to Phthisis Pulmonalis, may the food dust acting as an irritant and so lead on to molecular Changes as to bring about organic Disease of the Lung tissue itself.

Upon referring to the views put forward by Siemens, in which he shows that Phthisis Pulmonalis may be brought about by Inflammation of inflammation due to the Inhalation of Insoluble Particles into the air vesicles, in connection with Certain occupations.

And also according to Prof. Grainger Stewart's Lectures on the Causes of Phthisis Pulmonalis he says among other things by inhalation of insoluble materials especially when these Agencies act upon Constrictions hereditary or otherwise predisposed to the Disease
When the sun was setting on the horizon, the crew of the Concordia made their way to the shore. They were greeted by the sound of surf and the smell of salt air. The crew knew that they were close to home, and their hearts were lightened by the prospect of returning to their families.

As they neared the shore, they saw a figure standing on the beach. It was an old man, dressed in a simple tunic and carrying a staff. He smiled at them, and they returned his greeting. He introduced himself as an old friend of Captain John Smith and offered to guide them to their families.

The crew followed him, and soon they found themselves standing on the shore of a small cove. The old man pointed to a house nestled among the trees and said, "This is your home. Your families are safe here, and they are waiting for you.

The crew thanked the old man and made their way to the house. They were greeted with open arms and tears of joy. They knew that they had been through a great trial, but they were grateful to be back with their loved ones.
Secondly with Regard to
Shek Barmashen Egeena

The Barmishes used
are Special Barmishes: as far as I can learn
the following are the Recipes.

**Black Barmish**

7 lbs. Black Sealing Wax well
browned put into a Pan of Boiling containing
Red Linseed Oil. 3 2/3 lbs. put in a warm place
while dissolved. 6 oz. on one with a Soft brush
before a fire.

**Brown Barmish**

Dissolve 4 lb. of
Sandalwood 1 lb.
Shellac 1 lb.

in a gallon of Spirits of Wine, to which when
the Resins are dissolved add a Pint of Lemonade.

These I think are the Principal
in the Black Barmish by weigh there is
80 p.c. of Spirit. In the Brown 66 p.c.

The Temperature of the Room in which
the Barmishing is Carried on Register very near more than 100°. The Per Cent.
Age of Spirit used is very high. In fact
I have known cases reported me. in which
workers complained that sometimes upon
Using the Barmish it causes a good deal
of Irritation of their Eyes. Burying being
allowed: and in some Cases Painting
has occurred.
Now it is not very easy to arrive at the exact cause of the Eczema.
That Eczema itself is looked upon as a
Catastrophic Inflammation of the Papule
of the true Skin: I suspect that in the
Case of Sicker barnacles where the Pores
of the Skin are necessarily opened by
the Heat of the Atmosphere they produce
and the Percentage of Spirit remains very
high it may (the Spirit) act as a Local
Inflammatory to the Surface of the Skin.
If the Percentage of Turpentine had
happened to be very high: then we might
have had a Dermatitis set up almost
Simultaneous Eczema: but in the Cases
seen the Impetigoenic Characters
of the Affection has not allowed of
Any other Diagnosis but the true
Eczema Impetiginous.

Thirdly with regard to
Indigestion

This is an Affection of
common occurrence among the Hands
at the factory and the Cause seems
to be of a Two fold nature.

Firstly
from the Result of Close Confinement
in badly ventilated Trade Shops.
Secondly
from Improper Diet: just as
we have discerned the Ordinary Diet of a
Mill Hand before it will be necessary to refer to a guide. Page 13.
And to pass on to a point more in connection with a special cause of the indigestion. At the back of the factory there runs a small stream, usually called "The Black Gutter" which is remarkable for its clearness and beautiful water. But at the same time the water is noted for its temporary and permanent hardness of character. With this stream petrological facts are found. It contains carbonates of lime and other forms of lime in green. Geologically speaking, the character of the rock formations about Chaterford are dolomite. The following is an account of a section of the stream.

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Rudley freestone.

Deeper born beds of Podlich ragstone. The Podlich weathered

sandstone on the surface

severe pink beds of light brown hard

oolite Limestone; the oolite
grains irregular, the beds more
sandly towards the bottom.

Now at the factory as has been remarked the distemper of the water causes a great deal of thirst. Large quantities of water from the Black Gutter are consumed. It is proved that the effect of hard water (when drunk) upon the mucous coat of the bladder
produced Carvallo of that Organ & of new beds to the formation of Urinary Calculi. It is also probable that in like manner the same effect is produced upon the urinary lining of the Stomach (learning the question of Calculi only). Because I have found that in these cases of Carvallo of the Stomach ui according to the Medicine prescribed. Since I propose a drug which affords much universal satisfaction in urinary affections. that it has also proved of great benefit to the Patient under care for Indigestion.

4. Medical Regard to Constipation Taking into Consideration the points noted upon Indigestion: added to this the sedentary Habits of a Good man of the Hands: one may not be surprised at Constipation being a common Affection: but there is also another cause to be looked for in this Complaint: and that is that when the Umbrella Stick is passing from the Hands of the Pamphiles to that of the Coloring Department the process consists in a pretty free application of the Red oxide of lead: and no doubt to some extent here the Water with this Sediment is apt to be acted
upon is the astronomic properties of that metal. Strange to say, however, I have not come across any well-marked cases of Lead Poisoning. Although I have seen on the east coast for such cases; as it happened that two years ago I was asked by a neighbouring Practitioner who has known this district for many years: if I had many cases of Chronic Lead Poisoning up to the present time. I have not seen any in the east.

And now I think this brings me to the end of Probable Causes of Diseases met with in a Sheik Factory. I hope in the next Heading of Illusbrations Cases to bring forward these of Patients under treatment more especially in connection with Sheik Factory Phthisis, as no doubt that is the most important disease of the four Subjects of Disease discussed.
Illustrative Cases

in Relation to St. Peter's Factory Phthisis

1. Thomas Gardiner, Age 32, Married.
   Family History:
   Father: Died to a good age. 3 Healthy.
   Mother: "           3 Healthy.
   Sisters: Alive. 3 Healthy.
   Brothers: Alive. 3 Healthy.

As a Boy his Health was very good. At the age of fourteen years he first began to work at the St. Peter's Factory. Since that time up to his present age has continued at that work. His General Health up to eight or nine years ago was very good, so much so, that he had never been away from work. Amount of time at his work on account of illness: or as he mainly put it: "Was glad to say that he had no occasion to trouble a doctor. His particular kind of work was at the Smaller Kilns. From 2 to 3 years ago, he had worked amongst the Commoner Branches of wood, such as Apple Wood, Beech, Orange Wood, Seven or Eight years ago, he was put to work amongst the Zebra Cotta and Black Ebony. After a short time he began to find his Health failing.
During his illness he experienced great dryness of his throat so much so that he was obliged to keep a c restore of cold water near his bed in order to assuage this thirst. Complained of the dryness of his throat which caused irritation of his mucous membrane causing him to sneeze also to cough with great frequency. He was obliged to cover his nose and mouth with his pocket handkerchief in order to catch his breath.

He suffered a good deal from frontal headache. All these symptoms occurred while he was at his task. Upon leaving his work at night, began to find a difficulty in his breathing, on waking home was also troubled with a very irritable cough which on going to bed at night kept him awake for several hours.

He first came under treatment in January 1852. He complained that all the above symptoms added to which were loss of appetite together with imperfect digestion a great feeling of languor and listlessness and want of energy for work. He also noticed that he began to lose flesh. On physical examination this want of firmness of the muscles was evident.

There was tenderness to slight pressure on both sides of the chest. Below the clavicles supraventricular was slightly protuberant and the character of the breathing was harsh.
His cough was very irritable. Some mucous fluids were heard over certain parts of his chest. Later on he began to expectorate thick lumps of mucous; sometimes these blocks of blood were noticed in it. Sometimes his expectoration was thin and frothy. But the most characteristic expectoration was that obtained at night after he had left his work. It was in the form of thick lumps of mucous upon the surface of which could be detected very small dark red patches, which corresponded exactly with the dry patches obtained from smoking up a piece of Zena cotton wood. The temp was slightly elevated, 99° to 100°. Cardiac sound normal. No. first sound slightly faint at base. Urethra: at times deposits of mucus. And occasionally night sweats occurred but not frequently. He was advised to give up work or change to another. Good morning; 7 a.m. Oed. Liver oil, 1 dr. each 6 a.m. and a mixture containing: Luc. comii, a.e. Cep. dre. After. Chlor. dua. slept for three months time his health was much improved. He gained flesh. Apparently better at the end of five months he returned to the mill to work at a different kind of wood. In Jan/ Feb. His health was fairly good; but as he himself says not nearly so good as before. He worked at the Zena cotton wood.

Mother: 68. Healthy.

Sisters: 3. Several & all alive. 
Brothers: 

As a boy his health was very good. He had worked in the steel factory for about ten years and he first came under treatment in October 1822.

Character of his work was at the circular saw among the commonest varieties of wood. This of course was dusty.

The peculiarity in this case was that he had all the general symptoms described in case (1. of Thomas Gardiner) loss of appetite. Indigestion. Pamphile. Asthmatic cough. Followed 2 marked decrease in weight lasting 2 to 3 months nearly a stone in weight. This added to this was a novel feature that instead of the more general physical signs of pneumonia incipient pulmonary. From time to time I was repeatedly called to see him. I found him suffering from attacks evidently similar in character to those of organic asthma. He was unable to lie down in bed. Had to be bolstered up in order to breathe. He complained of a feeling of suffocation and tightness
across his chest. His respiration was quick and shallow. He was of a sneezing character.
Clear pellets of mucus sometimes issued during the attack. The pulse was weak and irregular. The patient under treatment for a time was better as long as he was at home and under care. When returning to trade, after a little time, the same attacks came on again. At length the failure of his health seemed to be so fully set up: he with his gradual loss of health and strength, he was at last prevailed upon to leave the ship and take factory work. He got some peace or quiet as an attendant on some officers. He eventually got a situation in Birmingham in the end of the year or as Porter at some corporation offices. I last heard him two or three months ago and the report is that he has never had a day's illness since he left Cheltenham, nor any return of the attacks of phrenologically asthma.
As a boy his health was very good. He first went to the trees at 12 yrs of age. Up to the age of 24 had no great complaints to make of illness. At this age he was put to the Iowa Central. He complained of this work causing him great oppression of his throat. This illness also made him cough and sneeze. His appetite began to fail. He had a feeling of General Weakness. His Breathing while formerly was very good, now became hurried and laboured. He going up a Slight Hill. He noticed that as he arrived there at night he experienced Lumps of Insects which was as he termed it "colored." I first saw him in the Spring of 48. I was sent for to go to his house as his mother thought that he was dying. On arrival I found him sitting up in bed with his head bent forward and evidently in a Paroxysm of Bronchial Asthma. Beads of Perspiration were on his fore head. His Countenance remained the Muscles of his face strained...
and his whole aspect as one struggling for breath. After proceeding to the times of
rebellion, a clear time he attacked were
diminished. And in ten days he returned
again to track. And so he went on going
to track, for a time, having to stop at
home for a time. Then followed more
serious symptoms. In the early part of the
year 1754. He was again under treatment.

Now be developed more and more a train
of symptoms such as loss of flesh, at one
time he weighed before his illness 98 7 lbs
whereas he now only weighed 85 6 lbs
his breathing became worse. Epistaxis
was harsh prolonged, and a there was
tendency to $3$ inches on percussion in the
sub-clavicular region of both lungs.
His sputum was of a reddish brown
color; this I attributed as in case I
to the dust of the terra cotta.

Night sweats became frequent, and
call his friends had made up their
minds that he was going off in a
Gallop ing Consumptive. They naturally
so too: as a great many of his symptoms
showed. He was ordered away from
the hfe. Good Frel. French were given
as it was. But one, and after a time
sent to Treston. Later. Here
after a
trust there he returned home. He
showed and better I was quite sure that he
might go to track again. So he did.
And again in a month or six weeks the old symptoms of bronchial asthma returned. During Convalescence he was sent to West gate on the Sea 1 came back benefited. In order to prove the effect of the Zena cotta trust upon him. Upon his Return from West gate I particularly requested him one day to go into the tracks of the track of the Zena cotta wood. The strange part. I yet it is not strange at all was that he had a Paroxysm of Spasmodye Asthma during this track.

This of course was deceiving. he quite saw the necessity of leaving this track. Accordingly he was moved into the Packing department and since that time which is now near eight months he has regained his health. Put on Flesh by now weighing 9 st 7 lbs. I also never had an attack of Asthma since. I also found his cough now is hoarse with expectoration. I saw him two months ago & examined his chest I found matters much more satisfactory that at one time I could ever have hoped for.

Father - 73. Living. Healthy.
Mother - 70. 
Sisters - One supposed to have died in Ulster.
Brother - Living. Healthy.

He was brought up to trade at the Shek factory as a boy at twelve years of age, and up to four years ago had not had any great cause for complaint on the score of health.

I first saw him in the summer of 182...
mished. and he also gained in his diary.

He returned to France.

Afterwards saw him again at the Summer of 1839. When he had all his old symptoms (returned) again; but this time I was quite in doubt that he had actually left France. and his general debility had increased to a great extent. His cough was also very much for stimulation. His expectoration was darker with & or I added to this. he had developed not persistent

Night sweats: He very often wakened up in the middle of the night in a clammy perspiration. Since first seeing me in the year 1832. He had been working in the Black Wood. which is of a very dusty character. He was again without treatment for some time. Chiefly from a cold but the very arid air. and a strong desire to leave the factory. To this advice I am glad to say he listened. I acted upon it. It I am also glad to say that marked benefit to himself. Since his last illness he has

made as an agricultural labourer & has up to the present time had no return of illness. His health being much improved in character.
At Eighteen years of age he went to work at a brick mill. It seems to have had good Health up to the year of 1857.

Up to Sixteen years ago he walked amongst the home woods. Such as Beech. Apple, Pyramine. Peas. He says that he did not find much dust from these.

Sixteen years ago he was put to the ferry boat, and after working six or twelve months he began to find that his health failed.

He commenced of the dust causing him to sneeze. It caused him to be very thirsty from the great amount of liquid in his throat. His appetite became worse. He took food and not very well.

He also developed a cough with expectoration dark brown lumps of mucus. He found more difficulty in getting up the stairs when he lived on being in his work.

One evening in the Winter of 1857, I was sent for to see him. I found him suffering from whooping cough; he was sitting up in bed, endless struggling for breath.
The temp was 102, his Cough was accom-
panied by thick Tenacious Phlegm of a dark brown Color. Annie Hig Col.
but the front of his Chin. Rash Breathing
was our covered and at the Base of the
Lungs Crepitations of a Coarse Character.
He got better in about Three Weeks I went
to walk again.
Two months afterwards he had a
Semiclaim Attack, got better & went to
walk again. In three or four months
he had a Semiclaim Attack, still was
under treatment now for Six Months.
His average weight was 10 Stone. His
weight during his illness was 8 Stone. His Breathing had now become
very bad, his Delirium had greatly in-
creased and he quite gave up hopes of
himself. So almost had his Daughter
of him. He was however after a little
while able to be removed to Wrexh-
Super. Here and after a prolonged
While there he returned to Chiewford
Cottage. Stronger and also stronger. He
had not Carl get all his Cough out.
He was not allowed to attempt any
Walk it remained a Dale for nearly
a month. After that time he was
put to walk in the horse yard where
the Saline is of a very light NATURE.
From this he stood very well.
He used during the year of 1854 to come and see me to report upon his state of health which had become much better.

In February of 1855 I was again called to see him and found him suffering from an attack of illness precisely similar to that which he had in the winter of 1852 or his first attack. After leaving him I found out that there had been great need of hands among the Black River famed. The patient was pressed into the service. The effect of this was that the patient was paid up again. After this he was allowed to set out on a dangerous way. I found him ignorant of an agricultural labourer which he accordingly did. He has been to repair himself thus far and in all things considered his state of health in Paris factory.
In the case of Joseph Warren although there is no Hereditary Tendency to Phthisis in his Family History, the himself has never been of a Shinny Constitution. He has worked at the mill since he was a boy; and chiefly among the dust his broods. He has repeatedly been attended for Bronchitis, it is more or less generally coming under treatment for General Debility. Has had a cough with expectoration of thick jelly-like mucous in which particles of dust have been seen. He has lost flesh considerably. He has been advised to try other work; as he himself says, "the dust is killing him." Having a large family of children & finding it difficult to get them work is keen at the mill. and I repeat to say is getting all the harm he possibly can as from the nature of his work.

Family History:

Father: Nothing known.
Mother: Lived to a good age. Healthy.
Sisters: None.
Brothers: None.

As a boy, his health was very good. At fourteen years of age he was apprenticed to a baker. Not finding the changes from a hot bake house to the open air and out in the sun, he left his masters in two years. At sixteen, went to the Black Mill. He was first seen in the spring of 1832 when his general symptoms were similar to those of case 6. The reason that I have noted especially noted this case is that the peculiar part about it was that the patient was frequently coming under treatment for digestive derangements complicated with great deal of diarrhea. The interesting point is that he complained of the dust from the grain. When he worked amongst it he noticed his stomach, bowels, and set up diarrhea. This occurrence came under notice several times.
Family History:

Father: 45 yrs living, Scrofulous Hip Joint.
Mother: 70 yrs living, Health: Good.
Sisters: Several living.
Brothers: Several living.

This girl had worked at the stick mill for several years, and had not complained of any ill health until two years ago, for a long time before her illness which occurred in the beginning of the year 1883. She was employed as a fish skinner, and frequently complained that the dust made her cough, but caused her not to have an appetite for her food. I first saw her in 1885. When she had evident symptoms of organic disease in one of her lungs, and in the course of six months she had all the external signs of Phthisis Pulmonalis. She died at the end of the year. I cannot help thinking that in this case the inhaling character of the dust employed together with the close confinement and too liberal a diet was the means of producing the patient's death.

Family History

Father. Died of Phthisis Ael. 32.
Mother surviving. Healthy.
Sisters. Two or three young children.
Brothers. Jordan, Andy, Special diseases.

This patient had worked at the Stock Factory for several years, and to all appearances within twelve months of his disease. He did not lose much in anxiety. To his family on account of his health.
He was compelled to work in a very dusty department, and within three years his health began to fail. From the time of first seeing him, it was quite evident up on physical examination of his chest. That organ disease of his lungs had set in. His cough and expectoration was rapidly followed by purpuric night sweats and uncontrollable diarrhoea, and in the space of eighteen months he died from Phthisis Pulmonalis. Here was a case of hereditary tendency, added to this an infer and the shape of hard dust. Bringing about a total result.
With regard to the other diseases
indicated, I shall only bring forward one
Case or two under the Heading of
Stick Varnishers Pustulosis: as more
attention has been paid to the
Stick Factory Pustulosis, as being
naturally of much more importance
than the other diseases have been
rarely more from a General Point of View;
so that I think it would be almost
unnecessary to tabulate Cases.

Stick Varnishers Pustulosis

1. Mary Butler. Widow.

The peculiarity of this case is that at
each occasion of being removed from
any Department to the Varnishing
she had had an attack of Pustulosis

2. Elizabeth Barning. Widow.

This case is noted on account of the
Convenience that her Daughter who
was also put to the Varnishing
Department also was attacked
with Pustulosis.
Suggested Means for Prevention of Such Diseases.

and chiefly considered with regard to the prevention of Phthisis Pulmonalis.

Improved Hygiene: Conditions. If, and thus it seems no reason why it should not be so: an arrangement could be made by which the workshops could be ventilated better hereafter. This would allow of a greater amount of dust being carried away and also prevent the inspiratory of so much respired air. And if by means of a method of passing a current of air in close proximity to the circular saw a great amount of dust could be carried away, this air current would prove of much value.

With regard to

Improved Diet.

If instead of tea being consumed to such an extent a larger quantity of milk was used. If it could be managed to add more meat to the ordinary workman’s meals much good I am sure would accrue from it.
But of all improvements, these are and still the most effectual & hence able one would be: That of wearing a Respirometer. If this means the arrest of particles of dust entering the air passages would, in a great measure be effected: Man I regret to say Neil thinks too much of the sayings of his fellow creatures. Suggested a long time since & none of the workers in the goods cotton & bleachers by my that they should avail themselves of the above means. If the idea of producing amusement among their fellow laborers was the reason why I could not get any of them to turn the suggestion into practice.