Mr. H. MONTAGUE MURRAY, M.D., called and examined.

4076. (*Chairman.*) Are you a doctor in practice in London?—Yes. I am senior physician at Charing Cross Hospital.

4077. Are you able to give the Committee some information on the subject of fibrosis of the lungs produced by asbestos dust?—I have had experience of one case, which I had under observation for fourteen months.

4078. Is your evidence limited to that case?—I am afraid so, because at the time it occurred, which is seven years ago, I looked for statistics, but could find none, and since then I have not come across another case.

4079. Have you heard from any quarter that the disease is prevalent among those employed in the work?—One hears, generally speaking, that considerable trouble is now taken to prevent the inhalation of the dust, so that the disease is not so likely to occur as heretofore.

4080. Do you think it still may occur?—If there is dust, certainly.

4081. Have you any doubt in your mind that asbestos dust does cause fibrosis?—I think there is no doubt it did in this one case.

4082. Can you tell the Committee the particulars of that case?—The patient was a man 33 years of age. He had been at work some 14 years, the first ten of which he was in what was called the carding room, which he said was the most risky part of the work. He volunteered the statement that of the 10 people who were working in the room when he went into it he was the only survivor. I have no evidence except his word for that. He said they all died somewhere about 30 years of age. After he had been there 10 years he was put into another room, where there was much less dust. During the latter part of the 10 years he had had two attacks of what were diagnosed as bronchitis, which incapacitated him for a few weeks. In 1899, after he had been at work some 13 or 14 years he was sent to me, and I found he had marked pulmonary fibrosis, which was more like Potter's asthma than anything else I had seen.

4083. What was the outcome of it?—He improved. He was ill for a month before he came to the hospital, but after being there two months he went back to his work. That was in the spring of 1899. He worked for some months, then became ill again, and was re-admitted to the hospital in April, 1900, where he died. *Mr. H. M. Murray, M.D.*

4084. Was your diagnosis verified by a post-mortem examination?—Yes.

4085. Were there any tuberculous symptoms?—No; there were enlarged glands in his neck, but they were not tuberculous.

4086. If, after his first attack he had not gone back to his work, do you think he would have survived?—That I can hardly say, because his first attack of so-called bronchitis was some years before I saw him. The disease was so far advanced when I first saw him that it was simply a matter of time.

4087. (*Professor Allbutt.*) Will you describe what you found on examination of the lungs?—They were extremely tough and fibrous, especially the lower parts.

4088. What was their colour?—In parts a greyish black.

4089. Were there large and visible strands of fibre traversing the lung, or was it a finer fibrosis penetrating in all directions?—In the lower part the change was uniform, about the centre the grey areas were intermingled with reddish areas containing some air. In the upper part there was comparatively little change except increased toughness.

4090. Was there much pleuritic adhesion?—Yes.

4090*. Did you go further into any minute examination by microscope or otherwise?—Yes. I have here some photographs which were taken under Dr. Legge's direction from specimens prepared for me by Dr. Bosanquet.

4091. (*Dr. Legge.*) Can you tell the Committee what asbestos is?—It consists chiefly of magnesium and silica with some iron and lime.

4092. (*Professor Allbutt.*) Are these spicules spicules of asbestos?—Yes.

Mr. H. M. Murray, M.D. Dec. 1906.

4093. Was there much dilatation of the bronchial tubes?—Not much.

4094. Might asbestos be found in the sputa?—Yes; we examined the sputa and found definite dust, but could not definitely distinguish it from other dust of similar character.

4095. Were there no chemical means of distinguishing it?—No, because in ganister disease there might be as much silica in the lungs. Portions of the lungs were analysed afterwards, but the analysis did not give any further assistance.

4096. There would be then no handy method at the service of a medical referee, would there, of deciding by the sputa whether a person was suffering from asbestos fibrosis or not?—I doubt it; I never heard of any.

4097. From your experience in that particular case, do you think by examination of the sputa you could distinguish another case if you came across one?—No; one could give a probable diagnosis, but could not be definitely certain the disease was not due to some other form of siliceous dust.

4098. We have been told that there is something characteristic in the earlier stages of dust-phthisis in the predominance of shortness of breath before physical signs become very obvious; was that the case here?—Yes. When this man first came to the hospital he only complained of shortness of breath. His pulse was 63, and his respirations were 33.

4099. So that it is in accordance with your experience that there is something characteristic about the far greater incapacitation of the patient than the comparatively few physical signs would account for?—Yes.

4100. Does your case illustrate this general rule?—Yes.

4101. (*Dr. Legge.*) Was the sputum examined for the presence of tubercle bacilli or not?—Yes. None were found.

4102. Did the condition of the lungs on the post-mortem examination suggest any tubercular cavities?—No.

4103. In your experience at Charing Cross Hospital have you come across cases arising from any other dusty occupations which showed symptoms similar to these?—Not precisely the same; I saw two or three cases some years ago arising from brass dust, in which there were much the same symptoms, but the disease ran an acuter course.

4104. Speaking generally, fibroid phthisis, such as this, is not often seen in London hospitals, is it?—That is so.

Mr. H. Montague Murray, M.D., called and examined.

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