

especially occur in particular employments?—Yes; the one on the elbow is called the miner's bursa.

4057. Is it the same thing as the miner's beat hand and beat knee?—No, it is due to working the coal or other mineral while resting on their elbows.

4058. To what trade does the one on the buttock apply?—To weavers; it is sometimes called the weaver's bottom.

4059. Does that incapacitate from work?—No, because it becomes so thick that they can go on with very little inconvenience.

4060. Do they never lose their employment, or are prevented from working for a time?—Sometimes, if inflamed, but it is comparatively rare. The Spital-fields hand weavers used to have it a great deal, but the trade has gone, practically speaking, and consequently this disease is now rarely seen.

4061. Have you any idea how prevalent housemaid's knee is among domestic servants?—No; they nearly always go to hospital, and if the knee is only slightly enlarged with a little fluid, it is let out and they get temporarily well. Some do not seek further advice, but others go from hospital to hospital, so that really one cannot tell what the percentage is.

4062. Would you say it was a very prevalent complaint?—Yes.

4063. Do you think servants ever lose their employment through it?—Yes, I think so occasionally.

4064. So that it might be a proper subject, might it, for compensation under the Act?—It is the outcome certainly of employment necessitating the use of the knee or the elbow.

4065. (*Dr. Legge.*) Is there any generic term which one could apply to this form of disease which would enable us to deal with it in a group?—I hardly know. The disease may give no trouble for months or years, but it suddenly becomes inflamed, but what the cause

of the inflammation and suppuration may be is difficult to say. In many cases I think it is caused by some septic material in kneeling which attacks the weak part.

4066. It would be always necessary to use the word "inflamed," would it not, for the purpose of description?—No; but in the majority of cases it would be. If a bursa becomes big or painful patients cannot kneel until something is done to remove it.

4067. If it is not in an inflamed condition?—Yes, we very commonly remove them when they are not in an inflamed condition, because their removal gets rid of the disease and its disability.

4068. Do you get these cases as in-patients in the hospital?—Yes.

4069. For how long a time?—It depends—from four to six weeks.

4070. Do they recur after once being removed?—The same one cannot, but there are many bursæ about the knee-joint, and some of these may become affected later on in life.

4071. As a rule is it a permanent cure if one is removed?—I should say if I operated on a girl and removed the bursa she would be perfectly cured.

4072. (*Chairman.*) Can the complaint be diagnosed with certainty?—Yes, by a person who knows anatomy and surgery, but I have seen a housemaid's knee treated as fluid in the knee-joint.

4073. Could fluid on the knee-joint be mistaken for housemaid's knee?—I have seen it.

4074. (*Professor Allbutt.*) Do you think by using housemaid's mats the disease could be lessened?—I think so.

4075. (*Chairman.*) Has this complaint any name of greater dignity than housemaid's knee?—Yes; the prepatella bursa.

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 35 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 readmitted to the hospital in April, 1900, where he died.

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. J.  
Langton,  
F.R.C.S.

21 Dec. 1906.

Mr. H. M.  
Murray, M.D.

*Mr. H. M. Murray, M.D.* 4093. Was there much dilatation of the bronchial tubes?—Not much.

21 Dec. 1906. 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.

## FOURTEENTH DAY.

*Monday, 14th January 1907.*

### MEMBERS PRESENT:

*Mr. HENRY CUNYNGHAME, C.B. (in the Chair).*  
*Professor CLIFFORD ALLBUTT, F.R.S.*

*Mr. T. M. LEGGE, M.D.*

*Mr. T. E. BETTANY (Acting Secretary).*

*Mr. SAMUEL POOLE, M.D., called and examined.*

*Mr. S. Poole, M.D.* 4105. (*Chairman.*) Are you a medical practitioner practising in Wolverhampton and its vicinity?—Yes.

14 Jan. 1907. 4106. What part of the town do you practise in chiefly?—Pretty well all over the town, but I should think the tendency is more towards the east side and south side of the town than perhaps elsewhere.

4107. Are you officially connected with any of the workmen's clubs, unions, or other organisations?—No, only the Chillington Club, a little club in connection with the works, which I take because it is policy to do so. The Chillington Works—the edge tool people—I took for the reason that I wished to get instruction in this disease by greater experience.

4108. Is that club a men's club or an employers' club?—A men's club.

4109. It is not subsidised by the employers in any way, is it; it is not a shop club, is it, in the sense that everybody is compelled to join who joins the works?—No, it is simply a voluntary club, and consists of the men who work at that particular kind of work, because there are a great number of workmen in those works.

4110. What particular kind of work?—Grinding and polishing. It does not include the men who do forging.

4111. Is your practice connected chiefly with the men, or is it a general family practice?—It is a general practice.

4112. In the course of it do you come across a good many workmen who are ill from one cause or another?—Yes. I have charge of the district under the Poor Law, which includes that area on the east side of the town as well.

4113. With regard to the general health of Wolverhampton, would you say it is a healthy place or not?—Taking the town generally, it is a healthy town.

4114. With regard to lung disease found amongst

metal polishers and grinders, is it only one metal or all the metals which are polished?—Steel or iron—I do not mean brass.

4115. In grinding I suppose there are a great many different kinds of processes. Have you been into the factories at all?—Yes.

4116. Are there a good many different sorts of grinding apparatus?—Yes.

4117. I suppose you may have what one might call moist grinding, where a little water is used; and I presume there is also what one might term the complete wet grinding, where you have a regular stream of water pouring over the work? Have you seen that latter kind of grinding?—I cannot say that I have.

4118. That would probably be quite safe, would it not, as far as dust is concerned?—Yes. In the wet grinding I have seen there has been certainly a large amount of water, but whether the water came from the trough that the stone was running in or not I do not know.

4119. There is, at all events, some grinding so wet that it would be inconceivable that dust could get into the air from it at all, is there not?—I should not say so. I think in the very wettest grinding it is likely to fly with the water, because it increases the weight of the particles which may fly off at a tangent. I do not think you could see the splashing, but it takes place. If a stone is revolving at a great speed in water there must be water flowing off at a tangent, and if there are any particles in that water it must carry them off.

4120. But you do not see any wet or dust on the troughs or places round about, do you?—No, perhaps not.

4121. If there is no dust to be found and no wet to be found, and you cannot feel any or see any, you are warranted, are you not, in concluding that the process