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DOCUMENT DESCRIPTION: Medical Journal Article - Asbestos in London Tube
Railways

Dr. SALTER asked the local authorities in 1930: the number of houses actually confirmed demolished as a consequence. Mr. E. BROWN replied: 1,100 in England and Wales under the Housing Act, 1930, and 41 clearance

ANNOTATIONS

ASBESTOS IN LONDON TUBE RAILWAYS.

IF it be true that asbestos fibre was woven into cloth and used in ancient Rome, the medical profession has been negligent in its failure, until quite recently, to detect the existence of chronic industrial pulmonary asbestosis. The first fatal case of pulmonary asbestosis was recorded by H. M. Murray in 1900, and a full account of the disease was given two years ago in our own columns¹ by Dr. W. B. Wood and Dr. S. R. Gloyne. The Home Office inquiry into the effects of asbestos dust on the lungs, published shortly afterwards,² has been followed by the adoption of active measures to suppress dust in asbestos factories. In many such factories the introduction of exhaust ventilation and the replacement of dry processes by wet have changed the atmosphere in which the work is carried out until it is now free at least from visible dust. The operation of cleaning the carding machines by steel brushes, undoubtedly a potent source of fatal pulmonary asbestosis, has now been replaced by a vacuum method. In view of the fact that the dust particle producing the lesion in the lung has a diameter of only 2μ to 10μ it is obvious that the dust must be suppressed at its source; the use of respirators is futile. Illustrations were recently given in the daily press of an experiment which has been devised to coat the London tubes with asbestos in an attempt to minimise noise. In these illustrations the workman was provided with a double projector, fitted with triggers by which he released from two independent jets a spray of pulverised asbestos, apparently under considerable air pressure, and a spray of some adhesive solution. According to the illustrations the asbestos powder passed through the atmosphere for something like six inches before meeting the stream of adhesive. Though it is true that the workman was provided with a mask, it is equally true that his clothing was covered by asbestos powder. Experience in asbestos factories would indicate that, should the experiment of the London tube railways lead to an extensive use of this method for deadening noise in all the underground railways of London, then a large increase in industrial pulmonary asbestosis may be expected in years to come. In the House of Commons last week (see p. 374) Dr. W. J. O'Donovan asked the Home Secretary if adequate precautions had been taken to prevent fatal lung disease in workers lining London tubes with asbestos. Sir Herbert Samuel replied that he had no powers of control in respect of this work under the Factory or other Acts, and had no information at present as to the precautions taken. But he promised to make inquiries.

HIGH BLOOD PRESSURE AND STROKES.

DESPITE much investigation since Allbutt's original description of high blood pressure there is still doubt about its cause and symptoms, especially in the earlier stages. It is, as a rule, only later on, when the condition is fully developed and grave symptoms have supervened, that patients with hyperpiesis are seen and studied by the specialist. Since by then irreparable damage has been done, it is to earlier

recognition and study that we must look for advance in our knowledge. The condition is so common as to be an ideal subject for study by the general practitioner, and in an essay awarded the Sir Charles Hastings clinical prize for 1930, Dr. H. O. Gunewardene¹ records observations and conclusions on the "sudden severe attacks" affecting the nervous system that are met with in this disorder. He finds that minor paralytic and sensory phenomena are more common than the major apoplectic fit associated with a severe cerebral hæmorrhage. These minor attacks may be either permanent or transient, and their duration is sometimes only a matter of minutes or hours. In distribution they may be hemiplegic, monoplegic, or localised to one part such as the eye or tongue. The sensory phenomena are similar to the motor in distribution, and take such forms as paræsthesia, numbness, pain or blindness. Dr. Gunewardene finds that severe cerebral hæmorrhage is rare in patients whose diastolic pressure is less than 135, whereas the less severe strokes occur with diastolic pressures of between 115 and 125, no case being seen with a diastolic pressure less than 115. His observations also show that cerebral hæmorrhage is unusual in patients under observation who have been warned to lead a quiet and restricted life, whereas fatal hæmorrhage is likely in patients carrying on their normal occupation and making no allowance for their hypertension. He also makes it clear that both fatal cerebral hæmorrhage and transient strokes are very uncommon once cardiac failure has begun or there is clinical evidence of cardiac enlargement.

RESULTS OF GASTRECTOMY FOR CANCER.

IN a communication² to the Academy of Medicine, on Jan. 19th, Prof. H. Hartmann reviewed the late results in 125 cases of gastrectomy for cancer of the stomach, observed for periods ranging up to 27 years. Of the 25 patients who showed no sign of relapse, all but one had been under observation since the operation for periods varying between 1 and 27 years. There were, further, seven patients who had died, but not of cancer, and these deaths had occurred from 3 to 19 years after the operation. Another group included 13 patients, the cause of whose death from 2 to 13 years after the operation was not known; there may, perhaps, have been some deaths from recurrence of the disease among these 13. Lastly, there were 80 patients, whose death was due to recurrence of the disease, in 31 cases during the first year, in 35 during the second, in 8 during the third, and in 6 during the fourth year after the operation. Altogether 39 patients (or 31 per cent.) survived the operation by three years or more, and Prof. Hartmann is inclined to put at 29 or 30 per cent. the proportion of his patients for whom a cure could be claimed. "He has achieved this comparatively successful result, not so much by sacrificing the greater part of the stomach, as by removing with the greatest care the groups of glands which are most subject to invasion. He argued that even better results would certainly follow earlier diagnoses and operations performed before the disease had extended beyond the first relay of glands. His conclusion that "le cancer de l'estomac est un bon cancer au point de vue opératoire" is most

¹ THE LANCET, 1930, i., 445.
² Report on Effects of Asbestos Dust on the Lungs and Dust Suppression in the Asbestos Industry; Merewether, E. R. A., and Frigg, C. W., 1930. London: H.M. Stat. Office. See THE LANCET, 1930, i., 870.

¹ Brit. Med. Jour., Jan. 30th, p. 180.

² Bull. de l'Acad. de Méd., avril, No. 3.

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¹ Brit. Jour.

ARTIFICIAL PNEUMOTHORAX.

To the Editor of THE LANCET.

SIR,—The note in your issue of Feb. 27th (p. 450) by Dr. J. D. Macfie and Dr. A. J. P. Alexander on the follow-up of artificial pneumothorax cases is of great interest and importance. With their assessment of the practical value of this method of treatment I am entirely in agreement, but it would be of special interest to know further details of the cases that have died, particularly as regards the mode of death. It is to be hoped that they will publish a more extended study at a later date.

It is, I think, to be regretted that more investigation has not been carried out in this country on a really large scale as to the ultimate cause of death in cases of pulmonary tuberculosis treated by artificial pneumothorax, with special reference to the spread of disease in the contralateral lung. Even now, despite all the work that has been done by different observers and the vast amount of material available for statistical purposes, we are still to a large extent ignorant of the factors which should go to form the criterion of suitability in our selection of cases for pneumothorax treatment. My impression, after some years of clinical experience, is that phthisical patients fall roughly into three groups: those that go downhill whatever treatment is employed, those that recover and achieve permanent arrest in almost any circumstances, and those that occupy a middle position, so to speak, in whom one's treatment may well be the deciding force between life and death. I am inclined to think that it is the last group which furnishes the most successful results in pneumothorax treatment. Moreover, there is, I believe, a strong impression among many who have worked at the subject that while the immediate prognosis of pulmonary tuberculosis is more favourable in A.P. cases, the ultimate outlook—i.e., as regards length of life—is better in patients in whom cure has been attempted by more natural means.

I am, Sir, yours faithfully,

MATRICE DAVIDSON.

Wimpole-street, W., Feb. 28th, 1932.

A CAMP FOR UNEMPLOYED MEN.

To the Editor of THE LANCET.

SIR,—We believe that it is within the experience of all medical men in general practice that chronic unemployment almost inevitably leads to deterioration of mental and physical health, and that this adds to the difficulty of re-entering organised industry. With unemployment as widespread as it is now, the progressive inefficiency in the community from this cause becomes a menace not only to the happiness of millions, but to our communal ability to take the initiative if opportunities present themselves for a revival of trade, and to our capacity for reorganising our social structure if progressive rationalisation of industry demands it.

We are closely associated with a group of social workers known as the Order of Woodcraft Chivalry, which has set on foot a scheme of national non-military service. This has been devised so as to give opportunity to all young men who have either voluntary or involuntary leisure, to devote it to a full-time camp course of training, directed to the maintenance of physical fitness, mental alertness, initiative, and citizenship.

We are not yet ready to undertake the regeneration of demoralised men, though we hope to be so soon.

Our first pioneer group, which will go into camp in March, must grow at first by the addition of men of courage, initiative, and vision, capable of building up a tradition of hardihood and mutual help; and the purpose of this letter is to ask that the names and addresses of such men—great numbers of whom must be known to your readers—may be sent to the hon. secretary at 2, Devonshire-place, W.1. They should be between the ages of 18 and 25. If they are entitled to unemployment or transitional benefits, the Ministry of Labour has agreed that these may be paid over for their maintenance while under training.

We shall be very glad to supply full information to anyone interested.

We are, Sir, yours faithfully,

(Sgd.) I. NORMAN GLAISTER, D. L. TUCKER,
E. SCHOFIELD, R. TURNER,
B. STANLEY, A. WESTLAKE.
F. TALBOT,

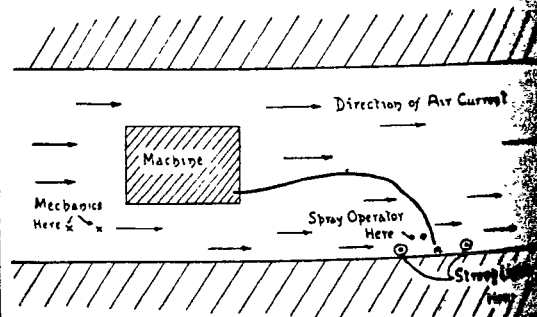
2, Devonshire-place, W., Feb. 27th, 1932.

ASBESTOS IN LONDON TUBE RAILWAYS.

To the Editor of THE LANCET.

SIR,—With reference to the annotation on page 416 of your issue of Feb. 20th, we, as inventors of the process referred to, give you herewith a few particulars, which we trust will enable you to arrive at a better conception of the work which is at present being carried out in the London Underground tunnels. Particular attention is drawn by you to the Home Office inquiry into the effects of asbestos dust on the lungs, and it will be seen that ventilation and the replacement, wherever possible, of dry processes by wet, form the basis of the safeguards recommended, of which advantage has been taken by the design of our apparatus.

As will be seen on examination of "Methods for Suppressing Dust in Asbestos Textile Factories," issued



the Home Office (1931), a system of tunnels shown on pages 11, 31, and plate opposite page 36, which are reproductions of photographs taken in our factory, provides an incoming supply of fresh air, removing any possible traces of dust from the vicinity of the worker, and we would point out that this is a system which takes place in the Underground tunnels, the apparatus being so arranged that the operator is kept constantly supplied with fresh air, and that dust or atomised adhesive is blown away from him immediately by the natural current of air flowing through the tunnel, assisted where necessary by mechanical means, for which full provision has been made.

In addition, a special study has been made of the question of suitable adhesives, so that a liquid can be used through the second process, completely saturate the fibre delivered from the