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SPAID THE SOCIETY FOR THE PREVENTION OF ASBESTOSIS AND INDUSTRIAL DISEASES
(Registered Charity No. 276995)

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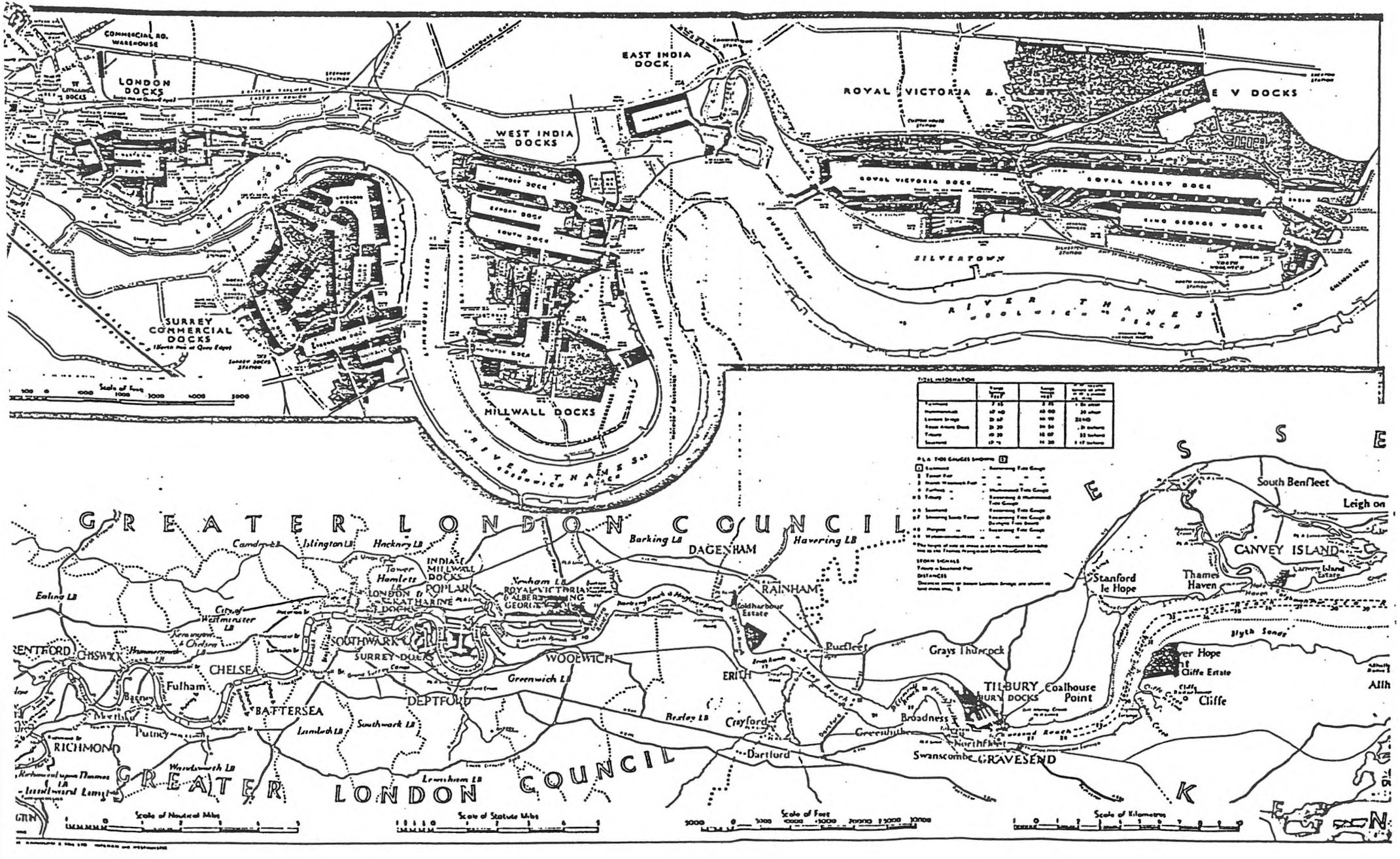
FROM THE SECRETARY

ASBESTOS AND THE DOCKER

PRICE £5.00

Secretary Nancy Tait 38 Drapers Road Enfield Middx. EN2 8LU Tel. 0707 873025

PORT OF LONDON THE RIVER THAMES



Asbestos and the docker

SPAID THE SOCIETY FOR THE PREVENTION OF ASBESTOSIS AND INDUSTRIAL DISEASES
(Registered Charity No. 276995)

Trustees
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FROM THE SECRETARY

ASBESTOS AND DOCKERS

1. Despite the long history of the asbestos problem (doubts regarding its safety were raised at least as early as 1898) it was not until 1965 that the hazardous nature of asbestos became known to dock workers. When this happened pressure was brought to bear and more adequate precautions were introduced as regards packaging and handling of asbestos cargoes. Previously asbestos had been transported in porous hessian sacks - as if it were no more dangerous than coffee beans.

2. Asbestos related illnesses (asbestosis, mesothelioma and lung cancer) usually develop years after the time of exposure; the effects of conditions before the mid-1960's are only now becoming apparent.

3. It is hard to believe that dockers were unaffected by asbestos before 1966; asbestos had been passing through British ports since at least 1879. Asbestos-related diseases have often been misdiagnosed. Doctors attached to the Port Authorities must have observed the effects of asbestos on dockers and certainly should have recognised what they saw: the symptoms of asbestosis were known in 1924; asbestos was recognised as a cause of lung cancer in 1955; the link between asbestos and mesothelioma (a cancer of the lung's lining) came to light in 1960.

4. Dockers who have become ill through exposure to asbestos and who now seek compensation face many obstacles. These include false assumptions, prevalent in certain circles, regarding:

   (a) The conditions under which dockers worked while handling asbestos cargoes and the resulting exposure to asbestos dust.

   (b) The medical and scientific evidence available <u>at the time</u> which made the dangers of this exposure very clear.

5. Absence of legal precedent for this type of claim by a docker is a major stumbling block.

6. Before shipping to this country, asbestos is broken into light fluffy clumps of fibre. Asbestos is naturally fibrous because of its crystalline structure; it will readily break into smaller and smaller fibres. Because of this fibrillar structure the presence of visible airborne fibres is considered a sure sign that the invisible and dangerous respirable fibres are also present.

7. Before 1965/66 asbestos was usually packed in hessian sacks which allowed fibres to escape. (In 1949 an American doctor saw children in the North Eastern Transvaal trampling down asbestos fibre <u>inside</u> sacks, preparatory to transport. X-rays revealed asbestosis with resulting heart failure. The children were 12 years old and younger.)

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14. The sun is shining, but there is a cool wind blowing across the deck; so because of our sweat-drenched bodies, we decide to consume 'mobile' within the tank. The ganger lowers it to us, tea urns, mugs and sandwiches, on a rope, and we settle back gratefully on the soft bags to rest while we eat and drink. Naturally, Ben and I are working as a pair, and sit together chatting over the meal. Facing him, I see a reflection of what I must look like. The sweat impregnated with asbestos fibres, congealing on his face. The false-grey eyebrows, eyelashes and hair. He blew the off-white dust off the surface of his mug of tea, before raising it to his lips where a small triangular shaped crust was forming in each corner. As he moved, the missing buttons allowed a view of his upper bare chest showing a woolly texture of fibres mixed with the curly hair. Behind him, a single ray of sunshine has penetrated the opening above us and stands out against the stark shadow of the background. Within it are captured a million dancing flakes, spinning and weaving: the beautiful shining specks of asbestos dust.

10.00 a.m. Resume unloading, ganger tells us the ship is working till seven. Does anyone want a relief at 5 p.m.? Two (from in tank) decide they do.

12 Noon - 1 p.m. Dinner Break.

2.00 p.m. Craft (barge) change. Have now reached a depth of approximately 25 feet. Everyone sprawled out on bagwork, thankful for the enforced lull. The atmosphere is like morning mist, because of the constant bombardment of dust from the 'sets' of bags going up through the small opening. The sacks containing the asbestos are rotten; they rip open at the touch of our hooks; the snotters cut through them as the weight is taken up by the crane. If the ganger is careless, the sets hit the combing of the tank, breaking sacks apart like stalks of celery. The old 'uns used to think that the raw asbestos rotted the bags. We know different; the sacks are second-hand, used time and time again until they reach this present state.

2.45 p.m. Mobile - tea and cakes are lowered down. We smoke cigarettes quite freely, although smoking is prohibited throughout the dock. One could hardly imagine a copper coming down here for a 'pinch'.

15. Looking at the men, most of them have bloodshot eyes and some take the opportunity of swilling their mouths out with a gulp of tea, spitting out an evil grey mixture. We are now ankle deep in the asbestos debris; it's harder to locate the corners of sacks.

5.00 p.m. "Reliefs" clamber down the steel ladder. The two men they are replacing have already done. The crane is held up till they reach the bottom, now 45 feet deep. They fetch with them milk bottles full of hot tea and coffee, to share amongst the gang. This is much appreciated by everyone. We are all parched, half blinded and tired.

6.40 p.m. Close down. The lighterman is ready to hatch up, and the seamen are standing by to replace the tank cover. Off with the detested boiler suit, a brief dusting down, and then the tedius haul back up the ladder.

the dock work-force. They refused to handle it in its former, exposed state and demanded that it be packed in plastic bags - these to be placed in drums and strapped to fork-lift boards.

26. Conflict developed between the PLA, the Ellerman Line (responsible for the ships carrying asbestos) and the Transport and General Workers Union.

27. A circular was issued to dockers via pay packets, dated 27th September 1966 and signed by Dr. A.M. Lawrence-Smith, Principal Medical Officer of the PLA Medical Department. (A copy is attached - See A.)

28. This glibly reassuring document dismissed the suggestion that asbestos cargoes held any dangers for those handling them. If the PLA really believed this, why, the previous year, had they raised pay for this work by 50% and why were they providing respiratory protective equipment?

29. Among other questionable assertions it was stated that mesothelioma (a cancer caused by asbestos) 'occurs only where crude asbestos is processed and a particular variety and grade of dust, not found in commercial cargo, is released into the air.' This statement contradicted the crucial paper on the subject, which had been published six years previously.

30. The link between mesothelioma and exposure to asbestos was first recognised by Dr. J.C. Wagner and colleagues working in South Africa. Their paper 'Diffuse Pleural Mesothelioma and Asbestos Exposure in the North Western Cape Province' was published in 1960 in the British Journal of Industrial Medicine. (The asbestos concerned was crocidolite - blue asbestos. Dockers certainly handled this - they handled all types of asbestos entering the country.)

31. 33 cases of mesothelioma were described. 32 had a traceable history of exposure to asbestos. In 28 of these cases exposure related to mining and transport of asbestos. The 'special production processes' emphasised by Dr. Lawrence Smith had nothing to do with these 28 cases.

32. In some cases exposure resulted solely from living near a mine, or near a major transport route carrying asbestos.

33. Wagner's report implied that asbestos must be considered a potential mesothelioma carcinogen:

(1) During and after mining processes
(2) During and after 'cobbing' to free asbestos fibres from adhering rock; this process, once done by hand with hammers, yielded the product that was shipped to this country and handled by dockers.
(3) During transport in hessian sacks - the very same sacks of asbestos which would be handled by dockers.

placate an angry workforce, information was forthcoming. The only diseases discussed are those for which the link with asbestos could not be denied. There is still no mention of the very serious and long known hazard of lung cancer. (According to the work of Peto, for example, there are more deaths due to asbestos-related lung cancer than to mesothelioma).

42. On 28th May 1966 Ben Morris, who had worked for the PLA at South West India Docks and had often unloaded asbestos, felt a severe pain in the lower left side of his chest. A series of examinations were made by Dr. Capel at the London Chest Hospital, beginning on 15th June 1966. On 5th April 1967 Dr. Capel was on vacation and Ben was examined by a junior doctor. Reading from the files he told Ben that he had asbestosis. By 7th April the news had reached everyone on the South Dock.

43. There followed a curious episode.

44. On Monday 17th April 1967, the docks controversy reached the House of Commons. Mrs. Joyce Butler, MP for Wood Green, asked the Minister of Labour if he was aware of the cancer risk to dockers handling asbestos. The Minister's written reply was made the basis of a leaflet issued by the Asbestos Information Committee, a public relations body funded by the asbestos industry.

45. The leaflet was entitled 'Asbestos and your Health', with a subtitle in capitals stating that 'THIS LEAFLET HAS BEEN PREPARED FOR THE INFORMATION OF DOCK WORKERS'. (A copy is attached - See B.)

46. The three sections of the leaflet were:

(a) A blatant PR piece by the AIC in question-and-answer form.

(b) A one-page report entitled, rather grandly 'Inquiry and Conclusions on the Medical Aspects of Working Cargoes of Asbestos by Dockers of the Port of London' and signed by Drs. A.M. Lawrence Smith (who prepared the PLA circular), Robert Murray and Kenneth Perry.

(c) A reproduction from Hansard of Joyce Butler's Parliamentary Question and the Minister's written answer.

47. The 'Medical Aspects' report was written on April 14th 1967 - 9 days after Ben Morris was told he had asbesosis and 3 days before Joyce Butler's Parliamentary Question. It consists of five paragraphs and a footnote. Paragraph 1 details the investigations undertaken by Drs. Perry, Murray and Lawrence-Smith; these apparently consisted of meeting to discuss the question. They assert that "We have taken due count of published medical opinion and of official statements by H.M. Chief Inspector of Factories".

56. Some of the paraphrases are revealing. In the AIC version 'some cases' of mesothelioma are associated with asbestos; in the Minister's text 'a substantial majority' are thought to have had occupational exposure.

57. The Minister states that 'there is no recorded case of a docker contracting asbestosis from his work' (emphasis added). This statement is paraphrased twice in the AIC text and echoes the note of caution distinguishing the 'Medical Aspects' report from Dr. Lawrence-Smith's circular of the previous year. Clearly the absence of a recorded case could simply mean that cases did occur but were not correctly recorded. Those familiar with the asbestos problem know that diseases written off as bronchitis, tuberculosis etc., have turned out on post-mortem to be asbestosis. Chest disease was common in the East End where dockers at the Port of London lived and died. Asbestosis could easily go unrecognised, or if recognised, could be recorded under some less specific name.

58. Beneath the heading 'Is asbestos safe to handle?' the AIC give details of the new packaging recently introduced for asbestos cargoes. The asbestos industry's concern for the welfare of dockers is most touching; these measures were taken only after union pressure was applied. The asbestos industry had not taken the initiative in improving packaging of asbestos nor had they introduced cautionary labelling; indeed a docker who unloaded asbestos during 1961-1963 remembers asbestos sacks labelled "Fuller's Earth".

59. The AIC leaflet tried to suggest that asbestos-related diseases were due only to conditions 30 years previously and, since conditions had been improved, there was nothing to worry about. This argument was curiously inept when applied to the docks. Conditions in regard to asbestos cargoes had only been improved during the two previous years - largely through union action. Up to 1965 conditions had worsened. Packaging and handling methods for asbestos cargoes had changed little since the turn of the century, but the volume of asbestos passing through the docks each year had increased steadily.

60. In 1968, after an unsuccessful appearance before the DHSS Pneumoconiosis Panel, Ben Morris decided to claim compensation from the PLA. The case was put in the hands of the Legal Department of the Transport and General Workers Union, to be handled by their solicitors Pattinson and Brewers.

61. In 1969 the solicitors received a discouraging Barrister's Opinion, suggesting that Ben's claim was unlikely to succeed.

62. After pointing out the absence of a statute strictly applicable to the case, the Barrister goes on to discuss the possibility of establishing a breach of duty by the PLA at common law. The barrister reveals several seriously mistaken ideas about dockers'

71. Certainly there was medical evidence that permeable sacks containing 'raw' asbestos were dangerous.

72. Wagner's paper of 1960, connecting asbestos and mesothelioma, described cases of mesothelioma among men who had contact with hessian sacks containing asbestos. Often these sacks were destined for this country and would later be handled by dockers.

73. In 1964 W. Glyn Owen's paper, 'Diffuse mesothelioma and exposure to asbestos dust in the Merseyside area' was published in the British Medical Journal. Two mesothelioma patients mentioned were women who had worked in sack repair factories. They had handled dusty, used, hessian sacks, some of which had carried asbestos. A similar case in London was reported by Newhouse and Thompson in 1965.

74. The 1931 regulations prohibited use of permeable sacks within asbestos factories but the hessian sacks handled by the women had carried asbestos to the factories; subsequently the sacks were emptied and sold off. When full the sacks had travelled from Canada or South Africa and in British ports they had been handled by dockers. When empty the sacks were still impregnated with lethal asbestos fibres.

75. This evidence, that the sacks handled by dockers carried a mesothelioma hazard, was available when Dr. Lawrence-Smith claimed 'The commodity, as found in ship's cargo, involves no occupational risk of Mesothelioma'.

76. The Barrister evidently believed that no link between asbestos and mesothelioma was known until 1965. Of course this is untrue. Wagner's paper making this link had been published in 1960 in the British Journal of Industrial Medicine.

77. This blew the whistle on asbestos and prompted a flood of research. The PLA Medical Department must have kept the relevant literature under review.

78. A significant paper which did appear in 1965 was 'Mesothelioma of Pleura and Peritoneum Following Exposure to Asbestos in the London Area' by Drs. Newhouse and Thompson, also published in the British Journal of Industrial Medicine. This contained the sack-repair case mentioned previously, but more importantly it mentioned the case of a docker's wife who contracted mesothelioma.

79. A group of nine mesothelioma cases involved exposure to asbestos, not through direct occupational contact but through contact with a relative who worked with asbestos.

80. Seven of these were wives who washed their husband's work clothes; the docker's wife was one of them. A relative said that the docker came home 'white with asbestos' every evening for three or four years (irregular contact?) and his wife brushed him down.

Subject: Review of Manuscript 667
Date: Wed, 05 Mar 2003 16:59:41 -0500
From: "Barry Castleman, ScD" <bcastle@bcpl.net>
To: h.king@reading.ac.uk

Dear Dr. King,

I will try to utilize the wonder of e-mail to send you a review of "Enemy of the People or Attorney of the Poor".

This is a real addition to what has appeared in print so far on the subject of asbestos public health history, and I recommend that you accept it for publication. I would appreciate receiving a copy when this does appear in print.

I have some suggestions that the author may wish to consider.

On page 7, the brief reference to Newhouse & Thompson (ref. 27) could stand elaboration. These authors not only confirmed the association between asbestos exposure and mesothelioma, but they did it separately for occupational exposure, household contact exposure, and neighborhood (air pollution) exposure. This paper, published in October of 1965 and covered then in the Guardian and the Sunday Times, demonstrated that very little asbestos exposure could cause mesothelioma. It also confirmed earlier writings by Smither et al. (BR MED J 2: 1194-95, 1962), "There appears to be no correlation between the severity of any pulmonary asbestosis and the occurrence of these tumors." N&T presented their work at a major conference on asbestos in 1964 (ref. 24), published at the end of 1965, so Hunter may well have known of it, especially if he was working at The London Hospital in 1964-65. The Newhouse and Thompson findings would have provided a very solid basis for Hunter's warnings to the dockers in 1965 and thereafter. Newhouse has died, maybe Hilda Thompson is living and can recall contacts with Hunter. Even without that, the alarm raised by Hunter would have had a firm basis considering what had appeared in print on asbestos and cancer by July 1965.

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--
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Social
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Medicine

The Journal of the Society for the
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Thank you for agreeing to referee the enclosed article. I also enclose the relevant form.

p 7 - NHT est. meso risk of low A exposure

- Are also Smithers et al. in BMJ 1962-3

with compliments

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15-16 - Greenberg L-D report was 1974 and it does not (?) show that doctors deaths by meso were recorded as of 1967

Smithers et al. in BMJ 196

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SOCIAL HISTORY OF MEDICINE

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MANUSCRIPT NO: 667 **DATE SENT:** 11.2.03. **REFEREE**: Barry Castleman
TITLE: *Enemy of the People or Attorney of the Poor: The Doctor and the Dockers.*

Please return both forms to **Dr Helen King** within six weeks of receipt

OVERALL RECOMMENDATION TO THE EDITORS

1 Accept article as it stands
2 Accept article subject to minor revisions
3 Accept article subject to major revisions
4 Not acceptable in present form and would require very substantial re-writing before submission
5 Reject. Not suitable for publication in *Social History of Medicine*

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6 Very well written: needs only routine editing
7 Generally adequately written, but needs careful editing
8 Uneven writing (*Please indicate which portions need re-writing in your report*)
9 Needs extensive re-writing
10 Needs cutting (*It would be helpful if your report suggested areas which are redundant if an 8000-word total is to be achieved*)

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11 Are the numerical data accurate?
12 Are the techniques used appropriate?
13 Is the presentation of data acceptable?

EVALUATION OF REFERENCES AND FOOTNOTES

14 Are the sources consulted accurately and appropriately cited?
15 Are there obvious omissions in the sources? (*Please specify in your report*)

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COMMENTS TO THE AUTHOR On the separate sheet supplied you may find it appropriate to detail some of the areas you have outlined in the points above.
Suggestions for revision, whether substantive or editorial, should be made on the enclosed separate sheet for the editors to transmit to the author.

Referee's Signature Barry Castleman Date: Mar. 6, 2003

SOCIAL HISTORY OF MEDICINE

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MANUSCRIPT NO: 667 DATE SENT: 11.2.03. TITLE: *Enemy of the People or Attorney of the Poor: The Doctor and the Dockers.*

COMMENTS FOR THE AUTHOR

Enemy of the People or Attorney of the Poor: the Doctor and the Dockers

Introduction

An aphorism attributed to the political radical and 19th century exponent of modern pathology Rudolph Virchow, stated that 'Physicians are the natural attornies of the poor'. From this it might be inferred that physicians advising on occupational health represent the best interests of the worker. Adversarial situations commonly arose in this field, where physicians advising workers and their representatives interpreted health data differently from physicians advising industry, which require more than scientific acumen to determine whether a physician was acting as an 'Attorney of the Poor' or as 'An Enemy of the People'.

In 1965, when dockers in the Port of London were concerned about their health, a random sample of occupational health text books available at the time,[1] showed the authors' awareness of the dangers to dockers to be limited to accidents, anthrax and to insect mediated dermatitis. An analysis of mortality data for 16 selected occupations that included dockers, found them to have a bad health experience, with deaths from 'Phthisis' of 3.83 per 1000 years of life (highest) and deaths from 'Cancer', of 1.09 per 1000 years of life (4th highest).[2] The expert consulted by a group of dockers inquiring about the hazard that they had faced in unloading asbestos cargoes, informed that it was serious.[3] Industry could not agree with him and considered that the precautions he recommended were excessive. As no individual could be identified of sufficient authority to refute him, 3 physicians met to review the problem: they concluded that there need be no concern for the intermittent exposures experienced by dockers, and considered that respirators and protective clothing were only required in the event of substantial spills. With this reassurance,[4] the London dockers continued unloading asbestos cargoes.

Published and internal industry records have been reviewed to set the incident in the context of the earlier history of the asbestos problem, and to throw light on the roles played by various physicians who became involved.

A brief resume of the awareness of asbestos as a human health hazard by 1965

Several detailed reviews have been written aboutf the history of asbestos and the stages in the recognition of its effects.[5] The industry began with the commercial mining for chrysotile asbestos in Quebec in the late 1870s and by 1898 asbestos was recognised in the UK as one of the four most serious occupational dusts.[6] The following year a London asbestos textile worker was diagnosed as suffering from 'fibroid phthisis': he died shortly after in his early 30s and the non-tuberculous

diagnosis was confirmed at autopsy. He had informed his physician that he was the last survivor of ten men who had been employed in the carding room fourteen years previously.[7]

Confirmation that severe respiratory disease and deaths resulted from exposure to asbestos followed shortly after from France[8] and from Italy [9] and in 1910, the Registrar General for England and Wales drew the Factory Inspectorate's attention to the deaths of five persons from '*phthisis*' in five years, among 40 workers employed at a factory where asbestos was woven. The processes at that factory and at two others were investigated and reported on as being dangerous to health.[10]

In 1918, an American publication reported that American and Canadian insurance companies generally declined to accept asbestos workers on account of the health-injurious conditions of the industry.[11] That year a study of a group of American patients with dust diseases of the lungs described the adverse clinical effects and the peculiar radiological abnormalities in 15 asbestos workers, supporting the actuaries' prudence.[12] The first detailed clinico-pathological case report was published in 1926,[13] by which time the plight of asbestos workers was recognised by family doctors in 2 towns in England. [14,15]

The publication of an H.M.Factory Inspectorate report in 1930 of an industry study, established the high attack rate of asbestosis in manufacture[16]. When medical researchers sponsored by the Metropolitan Life Insurance Company failed to find a health problem in Quebec's miners and millers,[17] its actuaries experience of claims was to the contrary and asbestos workers' premiums were loaded accordingly.[18] After repeated claims that the health of Quebec's miners was robust, finally in 1955 a number of cases of asbestosis were acknowledged to have been diagnosed in life and at post mortem.[19]

A causal association between asbestos exposure and excess lung cancer, strongly suspected by German and American authors in 1943 [20] was confirmed in the U.K. in 1955 [21]. In 1960, malignant mesothelioma was reported in South African asbestos mining areas,[22] which confirmed the causal association with exposure to asbestos of a number of largely unreported cases that had been diagnosed from 1935 onwards in European asbestos workers.[23]

The proceedings of the New York Academy of Sciences meeting on asbestos ,[24] that put industry on notice of the nature and extent of asbestos diseases and in particular the malignancies,

appeared the year of the dockers' inquiry. Even then, physicians could still be found to question the causal association between asbestos exposure and excess cancers, and when denial was no longer tenable, consign asbestosis and cancer to history on the basis that they related to conditions that prevailed in the past, before there was an awareness of the diseases, and maintain that subsequent hygiene improvements would have obviated any risk.

The Principal Physicians Involved in Assessing the Health Risks To Dockers from Asbestos

Dr DONALD HUNTER's interest in Occupational Health and Toxicology developed after a research assistantship in 1926 at Harvard, where he investigated lead poisoning, and continued on his return to The London Hospital as Assistant Physician. In 1943 he was invited to be Founder-Director of the Medical Research Council Department for Research in Industrial Medicine at The London Hospital, where he continued his research, was Founder-Editor of the British Journal of Industrial Medicine and wrote a book 'Health in Industry' that received international acclaim. Born son of a Post Office worker and brought up in the East End of London, although he metamorphosed into a Censor and Senior Fellow of the Royal College of Physicians, and Commander of the British Empire, he responded promptly to a call from the East End dockers.

Dr ROBERT MURRAY joined HM Inspectorate of Factories in 1947, and being based in Manchester would have gained valuable experience from the inspection of asbestos factories that were to become notorious. He moved to the International Labour Organisation in Geneva as Counsellor in the Occupational Safety and Health division, and returned to the UK in 1961 as Medical Advisor to the Trades Union Congress (TUC),to which post he was welcomed by a Turner and Newall director who knew him from his Inspectorate days.[25] When he left the TUC in 1974, he established a thriving national and international consultancy practice, where his credentials as a 'Man of the People' stood him in good stead, receiving commissions both from industry and from a number of unions.

Dr KENNETH PERRY was a Consultant Physician at The London Hospital, who like Hunter had 'Been to America' as a research fellow, a rite of passage for promising young physicians, and had worked for the MRC during the Second World War investigating occupational diseases. His obituary in the British Medical Journal (6 October 1984) described him as having a critical eye for both medical and political scenes about which he held strong views: this might have influenced his choice as an opinion to counter Hunter's.

Dr A.M. LAWRENCE-SMITH, was Principal Medical Officer to the Port of London Authority. As a full-time senior medical officer to a major port authority, Lawrence-Smith would have been expected to have a more extensive and intimate knowledge of the work practices of dockers and stevedores and of

their health experience, than the text books betrayed.

Dr Donald Hunter on the Hazard of Asbestos

The young Dr Donald Hunter's opinion on the dangers of asbestos were presented on January 10 1934, at a joint meeting of the Manchester Medical Society and the Pathology Society of Manchester in an address entitled:'Industrial Toxicology of Today'. It was quoted in a postscript to a letter addressed to the inventor of the Asbestos Spray process by an industry colleague that read:

> 'As a matter of interest, we have just learned that a Dr. Hunter of London has recently given a paper in Manchester to both the Medical Society and Chemical Society on this subject, during which, I understand he referred to the Dolbey process as "murderous".' [26]

For all Hunter's opprobium of the spray process, there was no occasion for the owners of the patent to be alarmed: despite a few demurs from time to time, because the process had not having been specified in the Asbestos Regulations 1931, sprayers and those in their vicinity were to continue to work with varying degrees of protection throughout the world for some 40 years and die quietly.

In 1965, a more experienced and now eminent Hunter came to be consulted by representatives of gangs of dockers employed unloading a particular vessel in the Port of London as to their health and safety. While a consultant at The London Hospital, he would have been able to acquire experience of asbestos disease as it had an extensive catchment area. There was a specialist chest hospital in East London with a tradition of Quaker philanthropy which saw many asbestos workers, yet such was the esteem in which the Whitechapel physicians were held, members of certain families of East Enders who had migrated to Barking where Cape Asbestos was situated, would opt for their asbestos diseases to be investigated and treated at 'The London'.(A study of its records were to confirm the association between asbestos exposure and death from mesothelioma[27].

A graphic account has been given by a docker of the process of transferring asbestos from the hold of a ship to a lighter in the South West India Docks (London), from which can be appreciated the order of the total physiological burden involved. 400-500 tons of asbestos were stowed in sacks in a ship's compartment measuring18 feet square and 50-70 feet deep, that was entered at the top through a 9 feet square entrance.[28] The docker descended vertically into the hold and emerged by means of steel rungs welded to the wall. The physical effort of the work combined with the physiological stress arising from the temperature in the hold which was proximal to the boiler room, would have limited even further the ability to tolerate for long, even in the absence of adequately protective clothing and respirators. Neither these facilities, nor changing rooms and other measures necessary to protect

workers exposed to dust containing asbestos, and to prevent environmental contamination were in use in the docks at that time.

After studying the dockers at work, Hunter wrote to the dockers' representative:

> 'It is my considered opinion that the Siebe Gorman mask Mk4, must be used by all the men, both in the hold and in the barges, in spite of the fact that the breathing resistance creates a difficulty. I realise that it will take much longer to unload a given cargo but if their health is damaged by asbestos, the process is irreversible. Further, I take the view that vacuum suction must be used on the cargo itself during the whole period of unloading, for whenever a bag breaks, the dangerous powder is scattered around and must be removed so that it cannot escape into the working environment.' [29]

Industry's Response to Hunter

London dockers' employers claimed that with Hunter's precautions, the discharge of asbestos would be restricted to one ton per hour, and they anticipated that the practice would have a grave effect on the importing of asbestos through the Port of London. [30] The response of the Shipowners' Joint Industrial Body responsible for working conditions within the Ocean Trades of the Port of London, was to commission a Consultant Biochemist [sic] to examine the dust count in the atmosphere of a ship's hold during the discharge of various kinds of bags. They had doubts that: '..the men will accept the conclusions reached, in face of the opinion held by Dr Hunter...' so the Secretary wrote to Turner and Newall: '...it would assist me greatly if you could advise me of an eminent Doctor, who might even in the face of Dr. Hunter's views, give an opinion on the Biochemist's report.'

The expectation that a physician might be found prepared to be more tolerant of asbestos dust than Hunter, fitted with experience. This correspondence was passed to Turners Asbestos Fibres Ltd, who though based in Manchester had an interest in the troubles of unloading asbestos in London docks, and they wrote in turn to Turner and Newall (T & N), their holding company:

> 'We have been singularly fortunate so far in that our difficulties with the dockers have not been ventilated publicly, especially as they would make excellent material for a feature on radio, television or in the press...it is only a matter of time before publicity overtakes us, especially if a reporter gets hold of Dr Donald Hunter.' [31]

T & N consulted Dr Knox, medical officer to Turner Brothers Asbestos (TBA) Rochdale who referred the matter to his Manager, who agreed with the suggestion that Dr Walter Smither, medical officer to Cape Asbestos at Barking, whose raw material arrived at the West India Docks, would be

able to advise the London Group of Shipowners. [32]

Although Cape Asbestos, Barking had only been established in 1913, from 1929 onwards, its disabled workers were to find their way in increasing numbers to the local Medical Officer of Health's Tuberculosis Clinic (later the East Ham Chest Clinic), The London Hospital, and the City of London Hospital for Diseases of the Heart and Lungs, Victoria Park East. Smither, who although as was Cape's custom had been recruited from general practice, assiduously followed up Cape employees in the clinics and at Coroners' autopsies, and in a short period would have acquired considerable experience of diseases associated with asbestos. Nevertheless, it would have been unrealistic to have considered him a match for Hunter.

Physicians Promote the Safety of Asbestos Cargoes

A summary account of problems with the Dockers as seen from an Industry viewpoint is given in a memorandum from TBA to its holding Company.[33] .It opened by referring to an impending report of an inquiry into dockers:

> 'I know Dr. Murray well personally and I have been in touch with him three times in the last few days. He told me that Dr Lawrence-Smith and Dr. Perry and himself had prepared a report designed to allay the fears of the dockers...Where the bags are broken they recommend respirators, which means slow handling and special rates, but otherwise they do not think that there would be any objection by the dockers to unloading white asbestos...Before signing and publishing this report, however, Dr. Murray was asked to attend a big meeting of dockers, along with Trade Union officials, at the West India Docks...when he hoped to get them to agree to recommence handling white asbestos...Dr Murray also told me that he had been instrumental in settling two stoppages of work in Glasgow - one on the Q.4 with 'Marinite' and one on a building site with Asbestolux.'

Interest was aroused in the National Press by the dockers, and an article in The Sunday Times of 31 October 1965 headed, 'Scientists track down a killer dust disease', which largely dealt with malignant mesotheliomas, drew attention to a series of cases identified by Dr Muriel Newhouse in The London Hospital files. One case report which described a docker's wife of whom it was said that her husband came home with his work clothes covered in asbestos which she brushed down, was noted by the dockers.

Subsequently, under the headline, 'Dockers fear health peril from asbestos', on 30 October 1966 The Sunday Times, reported that Dr Lawrence-Smith had made '...a controversial attempt to assuage their [dockers'] fears...' and to have circulated a signed statement among the men which stated that:

> '...the Ministry of Labour arranged scientific investigations which excluded the lung disease of "asbestosis" as a risk to dock labourers, that the development of the tumour associated with asbestos-known as mesothelioma-requires similar circumstances to those causing asbestosis, and that the tumour only occurs where a particular variety and grade of dust, not found in commercial cargo, is released into the air...He has an assurance from HM Medical Inspectorate that the gangs run no risk of mesothelioma or asbestosis in handling such cargoes.'

The three doctors finally reported in 1967:

> 'Our inquiries have found no case of injury to the health of a dock worker in the Port of London that could have resulted from employment there with asbestos cargoes; and we have no knowledge of any cases of Asbestosis occurring in the Docks Industry in the country, as a result of Dock work.' [34]

Dockers nationwide were informed:

> 'We are fully satisfied as far as the Docks Industry is concerned, that no unacceptable risk at present exists and that provided the currently approved methods of work are followed, Dockers may proceed with confidence in the handling of asbestos cargoes.'

The evaluation and reconciliation of the various opinions expressed by the triimvirate present problems. The categorical statement:'Our inquiries have found no case of injury to the health of a dock worker in the Port of London that could have resulted from employment there with asbestos cargoes...' would seem to have been accepted in the absence of supporting evidence.

The assertion: 'That no unacceptable risk exists at present in the Docks Industry', begged the questions of what risk was acceptable, and upon what data the statement was made. In the absence of data from which one could establish a threshold dose for the carcinogenic effects of asbestos, the claim that: 'Asbestos can only be a risk if substantial amounts are inhaled and that it is perfectly safe to handle otherwise', could not be substantiated.

The three 'facts' included in the statement: 'Scientific investigations had excluded "asbestosis" as a risk to dock labourers (1) and that mesothelioma occurs with asbestosis(2), and only results from a particular variety and grade of dust not found in commercial cargoes, (3) were without foundation. No scientific investigation addressed to asbestosis among dockers had been conducted, asbestosis had not been demonstrated to be a necessary precursor to mesothelioma, and all varieties of asbestos were to be found in commercial cargoes at that time.

The asseveration that: 'Dockers are no more likely to get lung cancer than anybody else' was

susceptible to testing, but this too does not appear to have been attempted. The Registrar General's occupational mortality report for 1951,[35] observed (O) 596 'Wharfingers and stevedores' to have died from all causes, where 426 were expected (E) (Standardised Mortality Ratio (SMR) =140), of whom 144 died from 'all malignancies' where 101 were expected. Among the excess tumours were: lung (O=59, E=37 SMR=159), and stomach (O=29, E=18 SMR=156).

Elevated SMRs for lung cancer had consistently been reported for the 20-64 age group of dockers in, 1931 (183), 1951 (149) and 1961 (169), and in 1971 it was to be182.[36] It could be argued that these findings did not necessarily represent the direct effects of dock work, and might merely be a reflection of life style; in the case of dockers the facile explanation would be attribute it to their smoking and drinking habits. However, in a later analysis by the Office of Population Censuses and Surveys of data for Stevedores and dock labourers, social class standardisation was applied, and where 1,365 deaths from all causes were registered 1,291 would have been expected. Proportional Mortality Rates were significantly raised for cancers of stomach, larynx and lung and for bronchitis, emphysema and asthma: the excess lung cancer mortality was confirmed by cancer registration data for the years 1966-1967 and 1968-69.[37] Although the commentator did not consider that the excesses clearly represented the direct effects of work, as social class adjustment would have taken account of much of the potential effects of the cigarette and alcohol variables it would have been prudent not to dismiss the potential contribution of work. The hypothesis that dock work presented a health hazard could have been tested readily by the Registrar General: provided with the nominal roll of Port of London dockers, he would have traced them, calculated the age-corrected mortality rates for various diseases, and estimated their expected values, but it was not done.

The Dock Industry newspaper under the banner headline: 'The facts about asbestos', included several sub-texts.[38] Prominently, under the headline:'A new statement signed by all sides: No unacceptable risk exists', there was the full report of the three-doctor inquiry without critical comment. Separately, the views of Dr Robert Murray, of Dr Lawrence-Smith, and of Dr William Buchanan were reported. (Dr Buchanan was a Deputy Senior Medical Inspector of Factories, who had contributed strong evidence for the causal association between asbestos and lung cancer.)

Dr Murray was presented as largely attacking crocidolite, insisting that it was so dangerous that it would be wrong to stand the chance of the slightest amount of the dust getting into the atmosphere, and going so far as to declare that he would not be entirely happy until there was a total ban on its import. As for Amosite and chrysotile, he saw it legitimate for dockers to handle palletised impermeable bags, provided masks were available in case of spillage, until containerisation was

instituted. Dr Lawrence-Smith was quoted as describing the risks to dockers as negligible, though adding the caveat : '...we have to take precautions and keep our eye on the matter.' Dr Buchanan was stated as being of the opinion that asbestosis now had a tremendous emotional factor built into it, very similar to the attitude of people at the time of the testing of atomic weapons when there had been publicity about the danger of getting leukaemia by being exposed to radiation. Dockers he considered not to be heavily exposed, and only to work with a cargo for a few hours and not touch it again for weeks or even months.

The Public Relations Promotion of the Safety of Asbestos Cargoes

In consultation with medical advisers, the asbestos industry's public relations consultants, prepared a leaflet addressed to Dockworkers.[39] This might have been read as a reassuring document as it confused the issue with such statements as the following:

> '...[asbestos] can only be a risk if you inhale substantial amounts of airborne dust. It is perfectly safe to handle otherwise...Cancer associated with asbestos is extremely rare [from the context this must refer to malignant mesothelioma]. In 50 years there have been only about 200 cases of lung cancer [mesothelioma] associated with asbestos in Great Britain. This compares with the present level of 26,000 cases of lung cancer [which must refer to bronchial carcinoma] from all causes.'

In the absence of proof for the existence of an amount of this carcinogen below which it is 'perfectly safe', the claim that only 'substantial amounts' are harmful cannot be substantiated. As for the statistics presented, they were too limited and muddled to be relied on.

The leaflet posed the question: ' Is asbestos safe to handle?' to which it answered: 'Yes, provided shippers pack it in a way that dust is not emitted'. This avoided the question of the continuing health hazard from past unrestricted exposures, possibly because the same physicians who had earlier discounted the significance of dockers' intermittent exposures were advising the Public Relations experts drafting the text. To the further question: 'Suppose some bags are damaged?' it replied that 'A few torn bags are no cause for concern because they will not release large quantities of airborne dust.'. If large numbers were damaged it suggested: '...respirators and overalls may be desirable...' This reassurance bore no relation to reality: in current practice, bags were not handled with delicacy and the resultant spillage was dealt with by dry-sweeping, by which exposure was enhanced. Unlike Hunter, neither the public relations firm's pamphlet nor the three doctor inquiry dealt with the process of safe decontamination of the holds.

The Dockers' Response to Reassurance

The dockers had the reassurance of the Trades Union Congress Medical Adviser, which was also incorporated in the three-doctor report. They also had the assurance of a Socialist Minister of Labour who informed Parliament, that he knew of: '...no recorded case of a docker contracting asbestosis from his work, and dockers are therefore no more likely to get lung cancer than anybody else.' [40] The hypothesis that asbestosis was a necessary precursor for lung cancer (bronchial carcinoma) was a belief that had not been tested and was subsequently held to be false, and such a sequence had never been demonstrated for malignant mesothelioma of the pleura or peritoneum.

When 2 years later, Glasgow dockers informed Clydeside Stevedores of their refusal to handle further shipments of asbestos, [41] the shipping company attributed this to a television programme the previous week that suggested that the inhalation of white fibre [chrysotile] might be dangerous. A letter of the 12th August 1969 cited the opinions of Dr Murray and of the Minister of Labour, as well as the Code of Practice issued by the Asbestosis Research Council (an industry agency with a public relations function), declaring the safety of the process where proper precautions are taken. [42] The same letter writer could correspond in confidence on the same day with Bell Asbestos Mines in Canada, referring frankly to excessive dust counts measured during manual discharge of container loads of Bell fibre packed in both Clupak and multiwall paper [43].

> 'You will note that the great majority of the counts taken at the various operations exceed the level at which our |government| inspectors would require improvements to be made |above 4 fcc| and that in approximately 6 instances they would have required operations to stop until respiratory protection had been provided [above 12 fcc]...There is one further point about dust counts which ought, I think,be looked at, i.e. how it comes about that so much dust is generated although the bags are impermeable and undamaged.'

He suggested that in the case of Clupac: .

> '...it is possible that loose fibre is picked up by the hessian in the mill...', as for the impermeable paper sacks, he observed: '...loose fibre clinging on the outsides was negligible, but from my own observation a good deal of dust is emitted from the bag closure during handling.'

(The present author is able to confirm the last observation having at the time studied paper sacks being filled in the factory under local exhaust. After filling, the neck of the bag was machine stitched and then hurled to the ground away from the exhaust point and trodden on to flatten it for ease of stacking, during which process dust was seen to be emitted through the gaps between the stitches.)

Over the next few years, despite recurrent interruptions, asbestos continued to be imported,

unloaded and delivered to the factories. On various occasions, arrangements were made for the diversion of asbestos to more accommodating UK ports, [44] though from time to time even they (e.g. Manchester [45] and Avonmouth [46]) were troubled by asbestos.

For all the enduring folk memory of an heroic unified struggle for 'The Dockers' Tanner' by an earlier generation, during the asbestos incident a consistent national union policy was not evident, with cargoes declined at one port being diverted not only to unregistered ports but to another registered port. When a cargo arriving at Manchester was noted to have been marked in South Africa as intended for Glasgow, local Union officials were reported to have agreed to keep quiet about it and any similar cargoes en route, on the understanding that industry would arrange that in future South Africa would not mark the port of destination on cargoes.

Meanwhile industry debated the economics of covering each package of 20 palletised pressure-packed bags with woven polythene or fibreboard. [47] While the additional wrapping would add significantly to the cost, there were potential economies to offset against once the shipping industry could be persuaded to rebate for palletised cargo with its cheaper handling.

The Impact of the Doctors' Recommendations for asbestos

Apart from its technical properties, the exploitation of asbestos depended on it being an economic material to mine, process, transport and manufacture. Implementation of Hunter's recommendation of protective clothing and respirators for dockers, was presented by industry as a heavy impost on the transport costs of asbestos that would threaten employment in the asbestos industry and elsewhere.

Asbestos company physicians were not unfeeling about the disabling and death of workers: well before industry and its advisers in general could be persuaded that lung cancer was a risk, one wrote,[48]

> '...evidence already accumulated seems to favour a causal connection berween asbestosis and pulmonary cancer and humanitarian motives may decide the public conscience not to wait for scientific proof before insisting on more stringent safeguards against dust inhalation.'

He could however justify the continued use of asbestos under existing conditions on economic grounds.

> 'No one would suggest the abolition of coal mining or deep sea fishing on account of their dangers, because they are vital to the welfare of the nation...Indeed, there is scarcely any industry which does not depend to a more or less degree upon asbestos...To take this valuable mineral away from a nation, therefore, would put back that nation's capacity by half a

century, a blow which this country, at any rate, could not survive. '

The thesis did not include the technical and economic data to support the apocalytic prophecy. To an extent it was a matter of other days, other ways, in which a physician's opinion, even on matters outwith medicine, was not generally challenged.

The Reform Act of 1832 conceived the Factories Acts in April 1833 and delivered them 29 August 1833, following which they grew lustily but monstrously in the course of 140 years. Their deficiences came under scrutiny after the Second World War, and a number of recommendations made for remedying their shortcomings in various aspects of employment were published.[49] As early as 1906 the Home Office instituted that the Parliamentary Committee of the TUC was to be consulted by the Factory Department when Health and Safety at Work legislation was in preparation, and in the 1960s unions were represented on HM Factory Inspectorate advisory committees, but the contribution of workers' representatives to advancing the cause of their health and safety remained limited. Too late for the the dockers, the Health and Safety at Work Act 1974 was enacted, establishing a Health and Safety Commission (HSC), a tripartite body on which employers, workers and government would be represented to formulate policy and to supervise its implementation through its Inspectors and through independent worker Safety Representatives on the 'Shop Floor.'

Public health was no longer to be entrusted to any one expert, no matter how eminent, or to any number of arbitrarily appointed experts. From 1974 onwards, HSC's policy would be to rely on evidence-based advice given by scientists approved by its factions.

An Epitaph for the Dockers

Their work was hard, physically hazardous and dirty, the process of hiring was degrading, and their stereoptyping was as a vulgar and violent group. However, the guild-like conditions for admission to the Port of London labour pool and the specialised nature of the work, gave the dockers and their families a pride in belonging to an elite group. The advance of containerisation would lead to a reduction in the number of dockers employed nationally, and the movement of the Port of London activity to the Medway, together with the gentrification of residential accommodation in London's erstwhile docklands, would lead to their dispersal and contribute to a loss of their identification in National Registers. As a consequence, it is reasonable to expect that the routine analysis of the national death register would lead to an underestimate of the number of mesotheliomas and other stigmata of asbestos exposure incurred by dockers.

Although the three doctors had not found evidence for the health of a single docker having suffered as the result of unloading asbestos, in the period 1967-1968, nationally 4 dockers were registered as

dying of mesothelioma.[50] The cumulative total of asbestos-associated deaths registered for male dockers was to rise. One analysis of data for dockers and goods porters for the years 1979-80,1982-90, found 36 to have died of cancer of the pleura, 7 of cancer of the peritoneum and 4 of asbestosis,[51] while another analysis of data for those years reported 57 Stevedores and dockers to have died of mesothelioma (PMR 293.3, 95% C.I.=226.6-358.8).[52] By 1999, the cumulative national total of dockers registered as dying of mesotheliomas had risen to 266 [53], but this was not the end of the scourge of asbestos; as recently as 2001, a Port of London Authority docker employed in 1950-1954, was diagnosed as having a mesothelioma.[54]

From 1930 onwards, the polemical support given by the more insouciant physicians to Industry to promote the continued use of asbestos proved effective time and time again against Hunter and his ilk, who were pilloried, much as was Ibsen's Dr Stockman, for their irresponsible and alarmist views that posed threats to health, safety, employment and the economy. In 2000, the myths of asbestos being irreplaceable technologically, essential to sustain the economy, and capable of being used safely, were finally discounted when the World Trade Organisation upheld the European Union's support of the French ban on asbestos. This tolled the knell for the European asbestos industry, but was too late for the dockers and countless of other victims.

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Footnotes

(Where possible, cited documents discovered in the archives of Turner and Newalls and photographed in the case of: The Chase Manhattan Bank. N.A. against T & N plc., United States District Court, Southern District of New York. 87 Civ. 4435 (VLB) (KAR), are identified in parentheses by their 12-figure film-frame reference numbers.)

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TUC must be looking up and perhaps it will become a leader in the land that it ought to be, leaving LOW's famous carthorse far behind...' Woodcock the incoming General Secretary being deemed a moderate it was clearly hoped would exercise an improving influence on a TUC regularly presented by the political cartoonist Low as a large, clumsy and not very intelligent beast.

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The reply dated 12th August 1969, read: 'YOUR 1234 DIVERT GLASGOW ORDERS RST4 TOTALLING 110 TONS BOOKED CLAN MACNAIR TO OFFLOAD AT MANCHESTER...' [0000 0027 1979]

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Enemy of the People or Attorney of the Poor

SUMMARY.

London Dockers unloading asbestos cargo in 1965, consulted an eminent Occupational Health physician who informed them that they had been at serious risk. A second, opinion provided jointly by a Consultant Chest Physician, the Port Medical Officer, and the Medical Advisor to the Trades Union Congress, declared that they knew of no disease affecting dockers, and stated that intermittent exposure to asbestos constituted an inconsiderable risk that with certain precautions would be eradicated. With only a few regional interruptions, U.K. dockers continued to unload asbestos. By 1999 a total of 266 dockers had been registered in the UK as having died of mesothelioma, a tumour associated with asbestos exposure. Published and unpublished material have been studied, and the incident is reviewed in the light of the personalities involved, attitudes to medical authority, considerations of commercial interests, and the wind of change that was stirring in Health and Safety at Work legislation.

KEYWORDS: Britain, dockers, doctors, asbestos, malignant mesothelioma.