ASBESTOSIS RESEARCH COUNCIL

SECOND ANNUAL REPORT FOR THE TWELVE MONTHS BEGINNING 1ST OCTOBER, 1958

1. INTRODUCTION

The Asbestosis Research Council was established on the 1st October, 1957. This report details the activities sponsored by the Council during the second year of its operation.

2. APPLICATIONS FOR MEMBERSHIP

There have been no applications.

3. COMMITTEES

The work of the Council has continued under the guidance of the Management Committee and the Research Committee. The membership of these Committees during the year was -

(a) Management Committee

Chairman:	Sir William Fenton	British Belting & Asbestos Ltd.
	Mr. R. Barber	" " " " "
	Mr. T. C. Hale	Cape Asbestos Co., Ltd.
	Mr. A. A. Cross	" " " "
	Mr. N. A. Morling	Turner Brothers Asbestos Co. Ltd.
	Mr. J. Waddell	" " " " " "
Secretary:	Mr. D. W. Hills	" " " " " "
Followed by	Dr. S. Holmes	" " " " " "

The Management Committee met in London on 29th October, 1958.

(b) Research Committee

Chairman:	Dr. J. F. Knox	Turner Brothers Asbestos Co. Ltd.
	Dr. C. G. Addingley	British Belting & Asbestos Ltd.
	Dr. W. H. A. Beverley	" " " " " "
	Dr. R. Gaze	Cape Asbestos Co. Ltd.
	Dr. W. J. Smither	" " " "
	Mr. E. L. Dawson	Turner Brothers Asbestos Co. Ltd.
Secretary:	Mr. D. W. Hills	" " " " " "
Followed by	Dr. S. Holmes	" " " " " "

Executive Member: Dr. J. F. Knox

The Research Committee met four times; at Cambridge on 15th December, 1958 and 28th September, 1959, at Reading on 13th April, 1959, and in London on 29th June, 1959.

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4. FINANCE

(a) Banking Arrangements

The finances of the Council have continued to be administered through an account operated by the Rochdale branch of the District Bank.

(b) Research Committee Budget and Expenditure

Research Budget	£5000.	-s.	-d.
Research Expenditure	£4154.	19s.	2d.

It should be noted that the sum of £350. -s. -d. was set aside for a microscope for the Council's work at Cambridge. This has been ordered and delivery is expected shortly. Further, the sum of £500. -s. -d. voted for work on "The Physics of Asbestos Dust Clouds" has not been drawn upon.

Full details of the Council's Income and Expenditure are given in Appendix 1.

5. LIAISON WITH THE FACTORY DEPARTMENT AND THE AIR HYGIENE COMMITTEE

In accordance with Management Committee Minute No. 16(d), edited versions of the First Annual Report were forwarded to the Factory Department and to the Air Hygiene Committee (U.S.A.). One of the member Companies of the latter committee has since shown interest in the Ottway Dust Sampler and details have been forwarded.

6. RESEARCH PROGRESS

The research work of the Council has continued under the direction of Dr. P. F. Holt at Reading and Dr. J. Beattie at Cambridge. Brief summaries of this work are given below. Full reports appear in Appendices 2 & 3.

(a) Work at Reading

During the year the work has been transferred to a new laboratory and animal house. This has inevitably resulted in some dislocation, but the new facilities are far superior to the old.

The apparatus for maintaining an asbestos dust cloud has been developed to the stage when it will maintain a dust cloud of a fairly steady concentration automatically. Conditions can be varied to produce a completely fibrous or completely non-fibrous dust cloud as required.

The Animal experiments have been delayed pending the development of the dust machine to a satisfactory stage. These experiments are now in progress.

In order to measure the total dust exposure during animal experiments, work has been directed towards the development of a satisfactory mass sampler, based on a volatile filter. For snap sampling, a photoelectric monitor has been obtained, and efforts are being made to increase its sensitivity.

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(b) Work at Cambridge

Data on the mineral content and particle size distribution in lung material from 50 cases of exposure to asbestos dust at Rochdale has been collected together in the form of a report. Work is also proceeding to ascertain whether non-fibrous dust plays any part in the genesis of asbestosis.

Chromatographic examination of asbestosis body material has suggested strongly that the protein envelope consists of collagen. The pattern of laying down of the protein is now to be considered as this will give information of the mechanism of rupture of the envelope prior to the fracture of the fibre.

Experiments on the [illegible] of asbestosis bodies into the brains of animals have continued. It has been shown that sterile chrysotile fibres can result in the formation of asbestosis bodies within six months and that mature but unsegmented bodies do not product any marked effects. The results on the injection of fragmented bodies are so far inconclusive. The work continues and has been extended to anosite and crocidolite fibres.

7. DUST SAMPLING AND ANALYSIS

Continued experience of the Ottway instrument has shown that the dust count obtained in a steady concentration is dependent upon the sampling time. Evidence of this has been obtained by all three Member Companies but users of the instrument who are interested in non-fibrous dusts have not experienced this difficulty. No simple reason for the phenomenon has been discovered and it is likely that the matter will not be resolved until more is known on the physics of asbestos dust clouds.

Work on mass sampling by membrane filters has commenced.

8. RESEARCH COMMITTEE'S COMMENTS

The Research Committee feels that good progress has been made during the year, but the rate of progress has been hampered by limitations of manpower. Approval has already been given for the provision of extra assistance for Dr. Holt at Reading and the new arrangements will come into force on 1st October, 1959. It is felt that in addition to expediting Dr. Holt's programme of work, this appointment will enable a start to be made on investigating the physics of asbestos dust clouds. Further proposals for expansion of the Council's Research Programme are under consideration.