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THE
BRITISH SOCIETY
OF RHEOLOGY

BULLETIN — No. 1, 1963

Hon. Secretary :

DR. M. F. CULPIN,
8 The Broadway,
Pontypool,
Monmouthshire.

Hon. Editor (Bulletin) :

MR. P. E. KNAPP,
20 Wayside Avenue,
Harrogate,
Yorkshire.

THE BRITISH SOCIETY OF RHEOLOGY

Report on the Conference on "The Visco-elasticity of Organic and Inorganic Glasses", Sheffield, January, 1963

This meeting which was arranged jointly with the Society of Glass Technology was held from 8th January to 10th January at the Department of Glass Technology of the University of Sheffield. Nearly a quarter of the 90 delegates were foreign visitors, from whom also came the contributors of eight out of the total of eleven papers. The chair was taken by Dr. R. Roscoe and Dr. F. S. Hawkins.

The Society of Glass Technology were responsible for the efficient organization of the meeting, and their choice of the newly completed seven-storey block at Halifax Hall for main meals and accommodation is likely to win converts to the system of residential meetings (of which this was the first organized by that Society). In contrast to outside temperatures, the conference atmosphere was warm and informal, and the many opportunities that existed for impromptu discussions should help to unify the field of organic and inorganic visco-elasticity.

A visit to the Rotherham and Stairfoot works of Beatson, Clark & Co. Ltd., was made by a party of about 30. They were shown the manufacture of many different types of glass containers and saw illustrations of some of the rheological problems discussed earlier on.

The guest of honour at the dinner was the Vice-Chancellor of Sheffield University.

G.R.

It is hoped that the papers presented at the meeting will be published in "The Physics and Chemistry of Glasses", one of the journals of the Society of Glass Technology. Special arrangements will be made for members of the British Society of Rheology to obtain copies of this issue.

Future Meetings

Members should by now have received final details of the Spring meeting of the Society, "Ductility in Metals and its Relation to fabrication processes" which will be held at Cranfield on 17th, 18th and 19th of April. Address enquiries to: Mr. R. Pearce, The Conference Secretary, The College of Aeronautics, Cranfield.

Details of the Symposium on "Grouts and drilling muds in engineering practice" to be held at the Institution of Civil Engineers 22nd to 24th of May, have already been circulated. Enquiries should be addressed to: The Secretary, British National Society of Soil Mechanics and Foundation Engineering, at The Institution of Civil Engineers, Great George Street, London, S.W.1.

Two important meetings are to be held simultaneously in August. However, they are so far apart that delegates will be spared the dilemma of whether they should divide their time between the two or not. The Tewksbury Symposium on "Fracture", 26th to 30th August, 1963, is being organized by the faculty of Engineering of the University of Melbourne. Professor A. H. Cottrell (Cambridge) will deliver the Tewksbury lecture. Subjects to be treated in papers include the physics of fracture in metals, ceramics, plastics, concrete and natural rock. The Organizing Secretary is Dr. C. J. Osborn, to whom correspondence should be addressed at the University of Melbourne, Parkville N.2, Victoria.

Brown University, Rhode Island, U.S.A., is the location of the 4th International Congress on Rheology, 26th-30th August, 1963. Enclosed with this Bulletin is a note about the possibility of air charter to assist members to attend this congress. Members who wish to travel to the congress in this way are urged to get in touch with Dr. Culpin as soon as possible. If the support of a Fellow of the Royal Society can be obtained, application may be made to that Society for financial assistance in attending the Congress. Dr. Culpin is able to furnish intending delegates with registration forms for the meeting and brochures, etc., giving more details of the Congress.

The title of the Autumn meeting of the Society is "The Rheology of Clays and Fine Particle Suspensions" and the meeting will be held at the University of Keele, Staffordshire, on 26th and 27th September. Offers of additional papers will be welcome and should be made to Mr. G. K. Jones, The Copyhold, Nutfield Road, Redhill, Surrey.

Metamorphosis

I suppose that anyone who, at the present time, makes his way to the Senior Common Room of a British University can at least escape the accusation of having an excessive reverence for convention, or of being unduly influenced by popular movements. At any rate that is what I did recently. At a time when transatlantic aircraft are packed with dons in transit from Cambridge U.K. to Cambridge Mass., and the road from University to factory is black with hurrying scientists, I chose to make my way in the opposite direction.

As in most other employment situations, the University-Industry transition is a reversible one, and as in other reversible transitions there are several agencies which can operate to create a preferred direction. According to the Association of University Teachers (and who inside a University would argue?) the predominant one in the case we are considering is that of salary level, which at present is forcing the equilibrium to the right. Let it be whispered, however, that there are still others which are capable of causing jumps in the opposite direction.

Even Amis's picture can seem attractive to one who is trying to answer two telephones at once, and whose attempts to think at a level a little less shallow than usual are continually interrupted by pressing trivialities. While perhaps not all Universities qualify for Disraeli's label of a "place of light, of liberty and of learning" one suspects that there will at least be a chance of doing some research without having to justify it beforehand in terms of an estimated disproportionate financial return.

In my so far brief experience of academic life, I do not find that I work any less hard, in fact probably the reverse, but I do find a comparative absence of pressure to comply with dead-line dates, and I have been able to indulge in the luxury of thinking in peace. It is true that travelling is something of a problem to one who has no private income, and second class seats cramp one's figure if not one's style. It was never my good fortune to be in one of those situations I have heard about, where a major part of one's duties was to fill in expenses claims, but in fairness it must be admitted that in Industrial Research the money for travelling was available; unfortunately the time was not. In a University, the opposite seems to apply.

One is required to subscribe to a type of polytheism in which one sends prayers for material benefits to a composite god known as UGC, although the wise heretic also looks for altars dedicated to other beneficent deities.

As regards prospects; if you think that promotion is measured by the increase in the number of people whose actions you direct, then University life is not for you. If, on the other hand, you believe as I do that the important factor is a decrease in the number of persons who have the power and the desire to direct your actions, then you might well consider reducing the strength of the A.U.T.'s case by making the same transition as I have.

And we have just got 10%.

G. H. TATTERSALL

New Members

Elected 6th December, 1962.

NAME AND ADDRESS	INTERESTS
E. East, 1 The Bury, Pavenham, Bedford.	Foodstuffs.
C. F. Chan-Man-Fong, Dept. of Applied Mathematics, University College of Wales, Aberystwyth.	Theory.
A. Poll, Warren Springs Laboratory, Gunnels Wood Road, Stevenage, Herts.	Suspensions.
R. R. Davidson, 3 Meadow Green, Welwyn Garden City, Herts.	Suspensions.
N. D. Waters, Dept. of Applied Mathematics, University College of Wales, Aberystwyth.	Theory.
D. G. Cole, Cement and Concrete Association, Wexham Springs, Stoke Poges, Bucks.	
H. E. Garrett, 10 Carlton Mount, Birkenhead.	Adhesives.
K. J. Heritage, Plant Protection Ltd., Jealotts Hill Research Station, Bracknell, Berks.	
M. H. Knisely, Medical College, Charleston, S.C., U.S.A.	Blood.
K. E. Schreiner, Norwegian Defence Research Estab- lishment, Box 25, Kjeller, Norway.	Metals.
S. G. Mason, Pulp and Paper Research Institute of Canada, 3420 University Street, Montreal, Canada.	Suspensions and emulsions.
W. H. Cogill, University of New South Wales, School of Highway Engineering, Box 1, Kensington, N.S.W.	
J. Whatham, 55, Benelong Road, Cremorne, N.S.W.	Metals, ceramics.
B. M. Learoyd, 76 Warragu Road, Turramurra, N.S.W.	Blood.
C. G. Dennis, Dental School, University of Melbourne, 193 Spring Street, Melbourne.	Biorheology.

J. C. Godfrey,
Division of Chemical Engineering,
C.S.I.R.O., Box 4331, Melbourne, C.1.

R. J. Wiles,
Flat 7, 16 Second Avenue, Sefton Park,
Adelaide, South Australia.

Polymers and Non-Newtonians.

Monica H. Williams,
116 Seventh Avenue, Joslin, South
Australia.

Sedimentation, rotation viscometers.

We note with regret the death of Dr. R. F. Bowles who had been a member of the Society since 1941.

Branch News

At the second annual general meeting of the Victorian Branch, held on 5th September, 1962, the following officers were elected:

President: Mr. B. D. Craven (University of Melbourne).

Hon. Branch Secretary: Mr. K. R. Hall (C.S.I.R.O.).

Hon. Branch Treasurer: Mr. E. R. Ballantyne (C.S.I.R.O.).

Committee members: Mr. O. Delatycki (I.C.I.A.N.Z.),
Prof. H. H. Dunkin (University of Melbourne).

Mr. R. E. Price (I.C.I.A.N.Z.).

During the year 1961-62 the branch co-operated with the University of Melbourne in arranging a course of lectures on Rheology. A report on these lectures will be available shortly. The programme for 1963 is as follows:

March 6th	"Rheology of Paper" (Mr. B. D. Craven).
June 5th	Discussion meeting on rheological instruments.
July 31st	A.G.M. "Rheology of Rubbers, Plastics and Proteins" (Dr. P. Mason).
November 6th	Discussion meeting on Rheological Education.

The Victorian Branch now has a membership of 38.

The committee of the New South Wales Branch for the year 1962-63 is given below:

President: Dr. L. Dintenfass (University of Sydney).

Hon. Treasurer: Mr. R. D. Bell (Taubman's Industries Ltd.).

Hon. Secretary: Dr. A. A. Palmer (Kanematsu Memorial Institute, Sydney Hospital).

Committee: Prof. R. C. L. Bosworth (University of New South Wales), Dr. B. M. Learoyd (University of Sydney), Dr. R. I. Tanner (University of Sydney).

Notes

1. Although the Secretary has received several replies to his invitation to members to state their views on the future of rheological research in the U.K., and in particular, whether a central research organization such as an R.A. should be set up, the opinions of most members are as yet unknown to the committee on this important problem. Members are asked to read again Dr. Culpin's circular, "Research in Certain Aspects of Rheology" of 11th January, 1963, and to express their views in writing to Dr. Culpin as soon as possible.
2. Arrangements for publishing the proceedings of the meeting on "Emulsion Rheology" held at Harrogate, October, 1962, are now well advanced. Members will be informed when publication takes place.

Situations vacant

The Rubber and Plastics Research Association of Great Britain is starting a fundamental investigation into the rheological behaviour of melt polymers. The work requires a physicist with a reasonable mathematical background who already has, or would be prepared to acquire, some facility with tensors. The appointment would suit someone finishing post graduate training though a more senior, or even a fresh, graduate would be considered. Starting salary, dependent upon qualifications, age and experience, would be on either the SSO scale (1140 x 40-1590) or SO scale (705 x 40-1225) with superannuation under the FSSU. Applications to the Secretary, RAPRA, Shawbury, Shrewsbury, Salop.

A Physicist or Physical Chemist is required for investigations on the rheology and other physical properties of mortars and plastering materials. Applicants should have at least a 2nd Class Honours degree and research experience; previous knowledge of these materials or of a related field will be an advantage, but is not essential. The appointment will be made in the Scientific or Senior Scientific Officer grade, at a salary appropriate to qualifications and experience. Superannuation under F.S.S.U. Pleasant environment in a growing organisation. Apply, with full particulars, to Director of Research, The Chalk Lime and Allied Industries Research Association, Church Street, Welwyn, Herts.