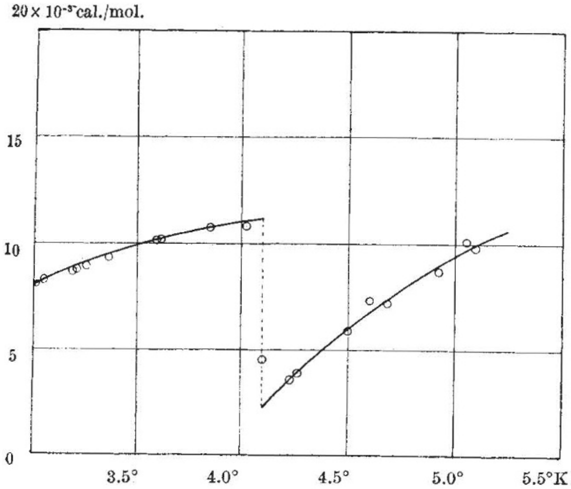
The experiments were carried out on five rods of very pure tantalum, kindly lent to us by Adam Hilger, Ltd. These rods were of the same batch (Lab. No. 10679) as the one used by Daunt and Mendelssohn. Their specific heat was determined in the temperature region between 3·5° and 5·5° K. The results are given in the accompanying graph.



As can be seen, the specific heat shows a discontinuity at 4·4° K., that is, exactly at the same temperature at which the electrical resistance disappears. This temperature is also the magnetic transition point determined by Daunt and Mendelssohn. The discontinuity amounts to about 9×10^{-3} cal./mol., which is in excellent agreement with the value ($9{\cdot}5 \times 10^{-3}$ cal./mol.) calculated by Daunt and Mendelssohn from magnetic determinations. From the drifts of the galvanometer attached to the resistance thermometer we could form an opinion as to the sharpness of the discontinuity, and conclude that the drop in the specific heat occurs in a very small temperature interval, not exceeding a few hundredths of a degree.

Our results disagree with those of Keesom and Désirant[2], who found a transition region 0·2° wide between 4·0° and 4·2° K. Their results agree, however, with the experiments by Mendelssohn and Moore[1] on slightly impure tantalum. It thus appears that, in sufficiently pure and homogeneous samples of tantalum, the changes of electrical resistance, magnetic induction and specific heat accompanying the establishment of the supra-conductive state occur at one and the same temperature. The outcome of the present research thus fully corroborates the conclusion reached by Daunt and Mendelssohn that pure tantalum shows the same behaviour as other pure supra-conductors and that the anomalous behaviour observed on some specimens is due to secondary causes.

In conclusion, we wish to thank Mr. A. Horseman for his help during the experiments.

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[1] Mendelssohn and Moore, *Phil. Mag.*, **21**, 532 (1936).
[2] Keesom and Désirant, *Proc. Roy. Soc. Amsterdam*, **42**, 536 (1939); and private communication.
[3] Mendelssohn, Moore and Pontius, VII^e Cong. Int. du Froid, **1**, 431 (1936).
[4] Daunt and Mendelssohn, *Proc. Roy. Soc.*, A, **160**, 127 (1937).

"The Man of Science as Aristocrat"

IN NATURE of May 3 the Right Hon. J. T. C. Moore-Brabazon states: "The man who by his political efforts can get adequate milk to children deserves more of his fellow men than the inventor of the quantum theory; but in the narrow world of science, who gets the most attention and encouragement?"

This is to me the most encouraging statement I have read respecting a definition of science. Anyone who knows human nature and the great difficulties involved in the practical proposition referred to by Col. Moore-Brabazon will realize that the desired result can only be effected, and then with extreme difficulty, by applying the scientific method patiently to attain the desired end, and the man who does it may thank God for his success.

The quantum theory is a great achievement, but the supply of milk to children, and a host of similar problems, of vital importance to humanity, can only be obtained by intelligence of the first order directed to the special practical end and by the use of the methods of science.

The conception of science and the recognition of its achievements in such directions as that indicated should rank with the achievements in the relatively narrow world usually called pure science. As Prof. Wood Jones in a characteristic sally stated: "It takes more than a white coat and a test tube to make a man of science."

If the younger men of science with the requisite ability were encouraged to strike out in these difficult and unconventional directions, we should get a better world, and perhaps such a world might recognize their achievements; at all events I think so. But the most difficult and the greatest task of which I am aware is that of altering the outlook of men. Once that is done the practical consequences follow automatically.

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"Crop Damage by Air Attack."

SIR JOHN RUSSELL in his article on "Crop Damage by Air Attack"[1] says: "The most serious risk is on the stubbles, if very dry weather should set in after the harvest." For the last nine years I have used a combine harvester, and have made a practice of burning some of the straw on the stubbles after harvest. In only two years have the stubbles been sufficiently dry to burn easily. Usually it has needed several men carrying burning straw about on pitchforks to re-light the straw, which tends to burn for a short time and then go out. I have also used a tractor drawing a chain harrow with a mass of burning straw on it to keep the fire going. A combine leaves a longer stubble than a binder, and with the straw lying on top of this it should burn easily if any stubble will. My experience is that once straw and stubble have been well wetted by rain they very rarely dry out enough for the fire to take easily.

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[1] NATURE, **148**, 215 (1941).