

"atomic weight/*g*" would have to be a force divided by a quantity of electricity, which quotient is called the intensity of an electric field. The atomic weight would then have to be taken to represent something more than a mere number or ratio.

It was thought that perhaps the elimination of all terrestrial factors like the atmospheric pressure, temperature, attraction of gravitation, etc., from the value of this electrochemical constant thereby reducing it to absolute terms which are independent of this earth, might perhaps raise its value by this small amount of 3/10 of 1 per cent., though the writer has been informed by very reliable authorities that it seems unlikely that such corrections would equal this amount. Unless this very slight discrepancy can be adjusted it would seem that this curious relation is a mere accidental coincidence of numbers. But when we are asked to believe that masses change with changes of velocities, that is, with accelerations, and that the atoms of the chemical elements are made up of electrons (electric charges) in very rapid orbital motions, again involving accelerations, so-called, it does not seem unreasonable to believe that new and unexpected relations may be found to exist between mechanical, chemical and electrical constants.

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PHILADELPHIA,
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THE INFLUENCE OF DRY VERSUS FRESH
GREEN PLANT TISSUE ON CALCIUM
METABOLISM

IN SCIENCE, 1920, LII., 318, Hart, Steenbock and Hoppert explain negative calcium balances on dry feed in their experiments, as well as those of Forbes and Meigs, on the destruction of a hypothetical antirachitic vitamine by drying. Mellanby brings evidence to show that the antirachitic vitamine is the same as fat-soluble-A, which is not destroyed in plants by drying. On the contrary, the antiscorbutic vitamine seems to be greatly reduced by drying except in very acid foods (fruits). The marrow tissue of the bones increases in pro-

portion to the bone proper in scurvy and calcium is apparently lost from the bones in this way. In order to make more exact studies of calcium metabolism on guinea-pigs, I feed them calcium-free diets during and for two days before metabolism periods of three days in length. One day periods were not long enough for definite conclusions to be drawn, but three-day periods on a large enough series of animals seemed perfectly reliable. The animals were under starvation conditions as regards calcium, but this lasted only five days, and examination of their bones did not show differences from animals fed liberal amounts of calcium. Animals that had been on a diet of dried plants fourteen days before the experiment, eliminated twice as much calcium as those that had been on a diet of fresh green plants and which during the experiment received calcium-free orange juice. In case of animals that had been twenty-one days on a dry diet, the difference from the controls was more striking. Scurvy appeared in all the animals on the dry diet. It seems possible, therefore, that the loss of calcium in the experiments of Hart, Steenbock and Hoppert may have been due to scurvy and that it is unnecessary to postulate rickets or an antirachitic vitamine.

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PURCHASES IN GERMANY

TO THE EDITOR OF SCIENCE: Some of the problems connected with the purchase of books, etc., from Germans at the present time have been alluded to several times in SCIENCE, and further information may not be out of place.

Somewhat less than a year ago I was offered by a German firm, with whom I had dealt for a score of years before the war, the file of a journal I was desirous of purchasing, for 3,000 marks. Somewhat later I received another offer from the same firm for \$420. A few weeks ago the same was again offered, this time at 22,000 marks, and still more recently at 25,000 marks.

As far as I am concerned, the \$420 is a

satisfactory price, but I do strongly object to paying some 20,000 marks more for the set than would a German in Germany; in other words to having the dealer make that profit out of me.

Professor K. A. Hofmann, speaking before the German Chemical Society, justified the present German procedure in the following words:

Von einzelnen unserer ausländischen Mitglieder sind Beschwerden eingegangen, weil wir wegen der Valuta-Verhältnisse das Ausland neuerdings anders behandeln mussten als das Inland. Wie ich kaum hinzuzufügen brauche, handelt es sich hier um Vorübergehende Massnahmen, die mit dem Eintritt normaler Zustände wieder verschwinden werden. Keineswegs, das möchte ich hier ausdrücklich feststellen, haben wir die Absicht, unsere ausländischen Mitglieder prinzipiell anders zu behandeln als die inländischen. Wegen der Entwertung der Reichsmark hatten sich jedoch Verhältnisse herausgebildet, denen zufolge das Ausland unsere Veröffentlichungen für den zwanzigsten Teil des früheren Preises kaufen konnte, während die deutschen Mitglieder das Doppelte zahlen mussten. Der Vorstand, welchem satzungsgemäss die Festsetzung der Preise unserer Veröffentlichungen zusteht, hat dann, vielfachen dringenden Anregungen aus Mitgliederkreise entsprechend, die Auslandspreise erhöht und so festgesetzt, dass unsere ausländischen Mitglieder immer noch weniger zu zahlen haben, als dies früher im Frieden der Fall war. Wir stehen auf dem Standpunkt, dass *ein etwaiger Valuta-Gewinn einzig und allein der Gesellschaft zusteht, nicht aber dem einzelnen ausländischen Mitgleid.* (Italics ours.) . . . Glaubt man, wir würden hier beschliessen, die 'Berichte' im Ausland für $\frac{1}{2}$, das 'Zentralblatt' für $\frac{1}{3}$ und die beiden ersten Bände des 'Beilstein' für zusammen 1 dollar zu verkaufen? Jedes Buch hat doch einen bestimmten Welthandelswert, und der muss aufrecht erhalten werden.

From the German standpoint this sounds very reasonable, but take the case of the "Berichte." The subscription in Germany and Austria is 45 marks; in America it is \$7.50. At present exchange (1.13) \$7.50 in American money is worth 664 marks in Berlin. In other words, an American pays more than 650 marks for that which is sold to a German for 45 marks.

In a recent publication I noticed the following extract from a German firm to an American customer, whose name had given the impression that he was a German:

A word about prices. I take it from your name and connections that you are of German family and am therefore prepared to make most liberal terms. As you doubtless know, it has been generally agreed in commercial circles here that all articles sold to *utlanders*, and especially to Americans, shall be priced considerably higher than the same thing sold to our fellow-citizens, the idea being to in this way recuperate to some extent from our late overwhelming losses and to make our recent enemies aid us in paying our most outrageous and crushing war debt.

This policy has been adopted *en bloc* by our associated . . . since some time. But as a fellow German, I am prepared to let you have these goods at the Berlin price, this of course being in all confidence, my most dear sir.

What course should a purchaser take who wishes to deal fairly, not only to the Germans, but to himself?

JAS. LEWIS HOWE

SCIENTIFIC BOOKS

Psychology of Nationality and Internationalism. By W. B. PILLSBURY. D. Appleton and Company, New York and London. 1920. Pp. 314.

The phenomena of collective life have in recent days evoked a great number of half-analyzed conclusions and assertions. A welcome relief from these is the present book, which represents the analysis of one whose point of view is supported by a background of empirical science. There is undertaken an analysis of the nature and development of the national consciousness, and of the place of the nation as an ideal in history, in the conduct and thought of individuals, and in the relations of states to each other.

Definitions of the nation are submitted to criticism. Neither language nor descent gives the key to the common spirit of a nation. Nor is the nation merely an extension of familial or tribal organization. Nationality is first of all a psychological and sociological problem.