it meets everybody's wishes and is not entirely arbitrary.

It would be better to retain the letter B for the present, till those who are not workers in this field of research have become used to the single F and G, for the letter B stands for a certain conception which, untenable though it may have proved to be, will but slowly disappear from popular literature to make place for a more correct term. The history of anti-rachitic vitamin is there to remind us that new conceptions take time to penetrate, even now and then one finds it identified with the vitamin A, and that in circles where one would not expect this. It is to be feared that the uninitiated, when suddenly confronted with the letters F and G, will not know to what they refer. Of course the British proposers, who only want to prevent confusion, will not mind whether this aim is reached by means of letters or figures. Figures, with their quantitative character, would seem to be less desirable than letters to distinguish qualitatively different matter. It would be quite possible for any one not to know, for the moment, whether 1 or 2 referred to the antineuritic vitamin, a doubt which will not be so likely to arise concerning letters, especially not if, as in this case, they offer a mnemo-technical advantage, F being the initial of the name of the man who first tried (and at what pains!) to detect the chemical nature of the anti-neuritic vitamin, while G reminds of Goldberger, who found the P(ellagra) P(reventive) vitamin, which there is reason to suppose is identical with the more heat-stable, growth-promoting component. If Funk could have made up his mind to agree to the designation of the antirachitic vitamin by the letter D, as the majority of workers do, instead of by the letter E, the latter having already been taken by Evans to indicate the anti-sterility vitamin, a provisional agreement would have been reached and in the realm of the vitamins it would be *tout pour le mieux dans le meilleur des mondes.*

E. C. VAN LEERSUM
NETHERLAND INSTITUTE OF NUTRITION
AMSTERDAM

ULTRA-VIOLET EXHIBITS

I NOTE in SCIENCE for December 7, 1928, a very readable account of an operating ultra-violet exhibit in the Natural Science Museum in London.

I am wondering if a great number of readers of SCIENCE might not get the idea from the article that such a demonstration as there depicted is new, or, even more, that it is the first time such a demonstration has been arranged in a museum. I believe it is quite generally known that such exhibits in ultra-violet have been shown in laboratories, lectures and the like in this country hundreds of times, and that many thousands of people have witnessed them. I particularly wish to call attention to the fact that this museum in New York has an ultra-violet exhibit whereby the visitor may see the fluorescence and phosphorescence of a variety of materials by pressing a button and thereby illuminating the stage with ultra-violet.

The Museums of the Peaceful Arts has now had this visitor-operated exhibit working for a period of about nine months. The museum makes no claim that there is any new science presented by this exhibit, but it is found to be very interesting to all classes of visitors and is typical of a large number of exhibits in the institution. It shows not only the different fluorescent effects of various materials but also the effect upon a statue from the Bureau of Standards, revealing it in dress under ordinary illumination and with its dress disappearing under ultra-violet light.

I might mention that the Buffalo Museum of Science has recently set up a similar very interesting exhibit, possibly antedating the one described in the London *Times*. Also the Newark Museum of Science and the Philadelphia Museum are planning similar educational exhibits.

F. C. BROWN

SPECIAL ARTICLES

A PRELIMINARY REPORT UPON THE UTILIZATION OF THE SPECTROPHOTOMETER IN THE DETERMINATION OF MINUTE AMOUNTS OF ALUMINUM[1]

THE ready employment of spectrophotometric data for the successful quantitative determination of dyestuffs used as food colors[2] as well as for the micro-analytical determination of boron[3] has suggested the employment of the spectrophotometer as an aid for the accurate determination of aluminum.

The introduction of aurine tri-carboxylic acid as a qualitative test for aluminum by Hammett and Sottery[4] and its progressive employment as a quantitative reagent by Yoe and Hill[5] have led to its adoption by physiological and agricultural chemists.[6] The test consists in the formation of a red compound or absorp-

[1] Contribution from the Utensil Fellowship, Mellon Institute of Industrial Research, University of Pittsburgh.

[2] Mathewson, *Jour. Assoc. Off. Agric. Chem.*, 2: 164 (1916). Bureau of Standards Technical Paper No. 440.

[3] Holmes, *Jour. Assoc. Off. Agric. Chem.*, 10: 522 (1927).

[4] Hammett and Sottery, *Jour. Amer. Chem. Soc.*, 47: 142 (1925).

[5] Yoe and Hill, *Jour. Amer. Chem. Soc.*, 49: 2395 (1927).

[6] Myers et al, *Jour. Biol. Chem.*, 58: 598 (1928).