Communications

Another Attempt at Classifying American Scientists

Some years ago I was one of a field party of geologists that was interrupted by a garrulous character who announced "I am a geologist." It turned out that he was a stonemason. In January, a volume entitled *Leaders in American Science* (Who's Who in American Education, Inc., 1953–54) reached me. After a sampling, I looked for the name of this stonemason, and, although I did not find his name listed as a "Leader," I did find the names of others almost equally undeserving of a place under this title.

I spent a few hours checking the entries in the field I know, geology. Listed as leaders in American science are 381 geologists, many of them strangers to the science. At least 28 are dead, several from as long ago as 1948 (Savage, Meinzer, Matthes, Darton, Chamberlin, Lane). Many addresses are long out of date or are incorrect (for instance, see Balk, Meyerhoff, Levorsen, Garrels). The only consistent feature apparent to me is that all the living past presidents of the Geological Society of America are listed. Included are only 14 of the 20 living past presidents of the Paleontological Society of America, 9 of the 26 living past presidents of the American Association of Petroleum Geologists, and only 6 of its 15 living American honorary members.

There must be many amusing errors, for in my brief check I found Petrunkevitch's field given as Drachnology, Lyons' as Structural Geology and Pathology, Schoewe's as Geology and Neography, and T. A. Dodge is listed as in Economical Geology. My father, E. B. Branson (deceased March 12, 1950), would have been amused to find himself listed as a geographer. There are many misspellings, such as Denision for Denison, and the names of the special groups studied by Pickford, "Olizocheta, Cephalapoda." Comish, in Business and Economics, and Viereck, in History, are certainly included by mistake. Barnum Brown and Kirtley Mather will be amazed to find that they are known only in Petroleum Geology.

Ten geologists are listed without being identified as geologists. Conspicuous omissions from the book are Lahee, J. E. Adams, Twenhofel, Lull, Ellison, Heroy, Bassler, Weller, Sellards, Dott, Miser, among many. Most of the listings of geologists (291) are but names and addresses, 73 are biographical records, and 28 of the latter are accompanied by pictures.

The controversial "starred" category of *American Men of Science* seems only mildly silly when compared with the list of "Distinguished American Scientists" printed in *Leaders in American Science*. These names are reported to have been selected by a poll of 50,000 American scientists. Inevitably, there are some logical choices, but the selections are largely ridiculous and some of the categories are ill chosen. The most foolish is "Geology, Exploration."

Leaders in American Science has made an unfortunate beginning. It is scheduled to be revised biennially, and it is to be hoped that the revision will be radical. The title of the present edition might more aptly have been "Some Americans Interested in Science."

CARL C. BRANSON

University of Oklahoma, Norman

Received February 18, 1954.

A Rapid Quantitative Chemical Procedure for Analysis for Niobium

A reliable rapid procedure for the determination of small amounts of niobium has been a critical need; such a procedure has recently been developed and is of direct value in the current search for new sources of the metal. The new method is a modification of the thiocyanate colorimetric method to determine niobium in rocks containing 20 to 2000 parts per million (ppm) of the element. The range may be extended to rocks containing larger amounts after proper dilution of the sample solution. The procedure has found application also in field work when visual methods of color comparison are used.

The thiocyanate reaction is carried out from solutions 4 molar in hydrochloric acid and 0.5 molar in tartaric acid, and the thiocyanate complex is concentrated by extraction with ether. The interference of vanadium is prevented by extraction of the thiocyanate complexes with ether prior to reduction and subsequent removal of the iron by reduction with stannous chloride. The addition of acetone to the ether extract of the niobium thiocyanate inhibits the polymerization of the thiocyanate ion and establishes the niobium thiocyanate color. Absorbancy measurements are made with a Beckman spectrophotometer at a wavelength of 385 millimicrons (385 mμ). Actual quantities are then read from a previously prepared standard transmission curve. The precedure permits the determination of 20 micrograms (20 μg) of niobium in the presence of 1000 μg of iron, titanium, or uranium of 500 μg of vanadium, or of 100 μg of tungsten and/or molybdenum.

The precision of the method is good. Five determinations each on two rocks containing as much as 100 ppm of niobium agree within 5 ppm of the mean. The coefficients of variation for three rocks containing between 300 and 2000 ppm of niobium do not exceed 15 percent. The results also compare favorably with figures obtained by spectrographic and x-ray fluorescence techniques.

FREDERICK N. WARD
ALBERT P. MARRANZINO

U.S. Geological Survey
Denver Federal Center
Denver, Colorado

Received April 13, 1954.