are held below 0.2 deg. Transmitting specimens are mounted close to the instrument's projection lens either mechanically or by a vacuum-plate assembly. The instrument is designed to be used with the manufacturer's photometric unit. (Gardner Laboratory, Inc., Dept. Sci567, P.O. Box 5728, Bethesda 14, Md.)

■ PORTABLE TIME SOURCE is said to be accurate to approximately ±16 sec/yr. The instrument combines a battery-operated d-c clock with a transistor radio receiver designed to receive time signals broadcast by station WWV at 2, 5, or 10 Mcy/sec. Output of the receiver is fed to a decoder that eliminates all signals except the 1-second tick. The latter is applied to generate a pulse for synchronization of the clock. Output switching function signals are provided at 15, 30, 45, or 60 sec and at multiples of 5 min intervals up to 1 hr. Several months of operation are provided by self-contained batteries. (Zenith Radio Corp., Dept. Sci564, 6001 W. Dickens Ave., Chicago 39, Ill.)

■ STAINLESS-STEEL GAGE BLOCKS have hardness Rockwell C 68 to 70 and are said to resist nicking and burring four times better than steel blocks. Temperature coefficient is 5.75 μin./in. °F. Decimal sizes are available from 0.050 to 4.000 in., fractional sizes from 1/16 to 7/64 in. Accuracies quoted are: grade AA, ±0.000002 in.; grade A+, +0.000005 in., −0.000002 in. (DoAll Co., Dept. Sci560, Des Plaines, Ill.)

■ AUTOMATIC BURETTE FILLER can be used with standard 5-, 10-, 25-, or 50-ml open-top side-filling burettes and with any electrically conductive titrant. Pushing a button on a control box allows titrant to flow into the burette; the flow stops automatically when the titrant reaches a stainless-steel wire sensing probe placed at the zero level. No drains or overflow traps are required. (Coleman Instruments, Inc., Dept. Sci563, 42 Madison St., Maywood, Ill.)

■ SWITCHING TRANSISTOR is a silicon *npn* device said to have an average turn-on time of 4 mμsec while switching 40 watts peak power with an average power dissipation of 250 mw. Operating temperature ranges to 125°C. Parameters include emitter cutoff current varying from an average of 0.01 mμa to a maximum of 1.0 μa and avalanche voltage and collector to emitter voltage varying from 40 to an average of 70 volts. (Raytheon Co., Dept. Sci568, 215 First Ave., Needham Heights, Mass.)

JOSHUA STERN

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Letters

Aslib

Please permit me to point out an error in your amusing editorial "Claim to fame" [*Science* **131**, 1339 (6 May 1960)]. The abbreviation *Aslib* does not stand for "Association of Scientific Libraries" but stands for "Association of Special Libraries and Information Bureaux" and is therefore an abbreviation of the "pronounceable classic" rather than of the "hybrid" type.

KURT GINGOLD

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We Are for Extensive Contacts between Scientists

For almost 30 years I have been working at the Botanical Institute of the U.S.S.R. Academy of Sciences, where I head the department of plant taxonomy and geography.

Our Botanical Institute possesses the world's second-largest collection of plants, consisting of some 5 million herbarium mounts. Botanists from all over the Soviet Union and from many foreign countries come to work at our institute. Not long ago, for instance, several German scientists were here, while now we are playing host to Swedish scholars.

We maintain cordial relations with the famous British botanical garden, Kew Garden, and the Botanical Society of Edinburgh, which has honored me by electing me to honorary membership.

I am happy to note that our contacts with the United States have expanded markedly. We are receiving more and more letters and parcels from research establishments in New York, Missouri, Massachusetts, Iowa, and other states. Recently I received a letter from Leslie A. Garay, curator of the herbarium of Harvard University, thanking us for herbarium material and informing us that he was incorporating the data supplied in a monograph he was writing. For my part, I have just sent a letter of thanks to Dr. Lawrence of Ithaca, who presented me with a very valuable and well-compiled book, *The Taxonomy of Plants*, which we are using in our work. All this is very gratifying. But our exchange with the United States so far is characterized by thousands of herbarium mounts a year, while I recall that before the war it was much more extensive. We can and should expand our contacts.

We exchange plants, sending and receiving them for temporary use in sci-

entific research, with more than 20 countries. But, unfortunately, there still are countries whose flora interests us, but with whom we have no contacts because of the cold war.

My colleagues and I followed with great interest the historical meeting between Nikita Khrushchov and President Eisenhower, and we are happy to see that a thaw has set in. It is as necessary to science for its growth and development as it is to plants. That is why we stand for complete disarmament, for friendship among peoples, and for broad contacts between scientists.

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Assay of β-Glucuronidase

We have noted with interest the reports concerning the effect of solvents on the activity of mammalian and bacterial β-glucuronidase [Gautney, Barker, Hill, *Science* **129**, 1281 (1958); Smith and Bongiovanni, *ibid.* **131**, 101 (1960); Ryan and Mavrides, *ibid.* **131**, 101 (1960)]. Two or more years ago we experienced difficulty in assaying Sigma Chemical Company's bacterial β-glucuronidase and arriving at the indicated unitage per gram. We pursued this problem not simply as a matter of analytic technique but also as a matter of simple economics, since we were assaying the enzyme at about 25 percent of its supposed activity. Sigma's laboratories assisted us in resolving our difficulties and, eventually, in understanding the discrepancies through the publication of their bulletin [Sigma Chemical Co., "Urgent Bulletin re Bacterial Glucuronidase" (Nov. 1958)]. It may be seen from this bulletin and from the reports published in *Science* that a tremendous variation is possible in "units of activity" per gram of enzyme, depending upon the technique by which the unit figure is derived. We feel that the following pertinent comments should be made.

In the assay of β-glucuronidase, the unit of activity is defined as the amount of enzyme which will liberate 1 microgram of phenolphthalein from phenolphthalein glucuronide in 1 hour *under specified conditions.* Altering these conditions in any slight degree, as is done by the addition of chloroform to retard bacterial action, may change the apparent assay by several hundred percent. This great variability in activity makes it impossible to accept, as absolute, the figures which are reported in publications dealing with the hydrolysis of urinary steroid conjugates. Unless the exact technique of assay is known, unit values for enzyme added to urine have little meaning.

It is possible, of course, to obtain maximum hydrolysis of conjugates by standardizing a batch of enzyme against a urine pool and using it empirically, as has been suggested to us by Dan Broida of Sigma. This then works, as long as an excess of enzyme is added to a urine. It is, however, not a satisfactory approach. The procedure is arbitrary. The determined maximum of enzyme for one urine may not represent a maximum for another, and every urine processed in a laboratory cannot, practically, be titrated. The method is wasteful and, needless to say, expensive. It appears to us that exact standards for the assay, to be used without alterations by those engaged in steroid work, would help eliminate at least one technical headache from this field. Undoubtedly, it would make the comparison of methods and results from one laboratory to another more valid and realistic.

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