

## EDUCATION

# Books Promote Progress

Traveling book and drug salesmen, like tinkers of old roaming the countryside, play an important role in spreading information and updating knowledge—By Watson Davis

► GIVE THE textbook salesman his just due in making known the advances in knowledge that teachers should be inculcating into the brains of their eager young charges.

None less than Commissioner of Education Francis Keppel, who recently came to Washington from the deanship of Harvard's School of Education, praises the commercial book traveler for his role in communication of new information, as he sells his wares. They actually set national standards.

Just as the traveling tinker roamed the countryside of pioneer days with a bagful of ingenious Yankee gadgets to lighten the work of the farmer's wife, so the introducers of new textbooks for the publishers of America explain how the new editions will do a better job than the old ones. Samples are left with likely teachers. Even school board members, who in some regions vote the adoptions, are seen and influenced to be willing to sign on the dotted line for sizable orders of the (free to the pupils) school books that will mean so much to future learning. This is an important ingredient in updating the prime educational

tools and getting off the school desks the obsolete information that often clutters them.

Salesmen call upon teachers and school officials as purveyors of apparatus that can be used in the teaching of the new sciences by experimentation, not just book learning. They give timid teachers courage to try new methods as they merchandise the new experimental materials.

In medicine, those who call upon physicians, dentists and veterinarians with the latest news of treatments and samples of drugs their pharmaceutical or drug houses are issuing are called "detail" men. They, too, rank with the professional journals in spreading information.

The house-to-house salesmen and sample distributors who leave everything from soap powder to cereals on the doorstep are likewise distributors of information.

Like the "voyageurs" of the Canadian wilds in the fur trade days, these new age travelers are reaching where even newspapers, TV and radio do not convince. Only gossip is more powerful.

• Science News Letter, 84:36 July 20, 1963

## METROLOGY

# Experts Size Up Russia

► RUSSIANS generally are just as precise as we—and in some fields even more precise—reported three American measurement experts who just returned from a month of sizing up the state of Soviet metrology.

They visited 15 measuring centers in Moscow, Leningrad, Kharkov and Kiev.

"We found them more highly industrialized, more advanced, than we had expected," said Harvey W. Lance of the National Bureau of Standards' Boulder, Colo., laboratory. He said the Soviets are ahead of us in the development of a sensitive receiver to measure radio noise and in electrical measurement devices using the taut-band suspension principle.

"We were all impressed by the great care and skill they have given to the calibration and insurance of stability (long life) in their laboratory instruments," said George Toumanoff of the Airborne Instruments Laboratory, Long Island, N. Y.

"Some instruments had levels of ingenuity we have not reached," said Dr. Daniel P. Johnson, an expert in pressure and vacuum measurements for the Bureau.

"But generally I was struck with the similarities in the problems and the approaches to the solution of the problem. I seemed to be saying, 'We also' an awfully lot over there."

He said the Russians have obtained "great

sophistication" in the field of optical measurements and are measuring a wider range of pressures than is done at the Bureau.

"We have been pushing for higher accuracy on a narrower range," Dr. Johnson explained. He said Russians are behind us in time measurements, but are making a bold attempt to build an atomic clock using a hydrogen beam.

Mr. Toumanoff said he believes the Russians are behind us in the development of lasers for length measurement.

They are good in measuring low and high heat ranges, but "less good" in the mid-range temperatures, Dr. Johnson said.

Mr. Toumanoff, also an aeronautical engineer, referred to recent stories about Russian commercial planes being returned to the factory because they were poorly made. He said it points out that even though the Russians are advanced in measurements, they are not fully applying that precision to their products.

The three were part of a team of seven American metrologists who toured Russia on an exchange basis. A group of Russian metrologists are expected to tour the United States and participate in the Sept. 9 meeting of the American Instruments Society. At that time the American team will make a full report.

• Science News Letter, 84:36 July 20, 1963

## Questions

**BIOLOGY**—Name three ways of acquiring germ-free animals. p. 42.

**ENTOMOLOGY**—In what gland is the queen bee's alluring scent manufactured? p. 38.

**PUBLIC HEALTH**—How many new TB cases are reported annually? p. 40.

**GENERAL SCIENCE**—How may the study of seals be applicable to the lives of men? p. 37.

**MEDICINE**—How many people in the United States, according to estimates, have headaches at one time or another? p. 39.

## SCIENCE NEWS LETTER

VOL. 84 JULY 20, 1963 NO. 3

Edited by WATSON DAVIS

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N.W., Washington, D. C., 20036, NORih 7-2255. Cable Address: SCIENSERV.

Subscription rates: 1 yr., \$5.50; 2 yrs., \$10.00; 3 yrs., \$14.50; ten or more copies in one package to one address, 7½ cents per copy per week; single copy, 15 cents, more than six months old, 25 cents. No charge for foreign postage. Change of address: Three weeks notice is required. Please state exactly how magazine is addressed. Include postal zone number.

Copyright © 1963 by Science Service, Inc. Reproduction of any portion of SCIENCE NEWS LETTER is strictly prohibited. Newspapers, magazines and other publications are invited to avail themselves of the numerous syndicated services issued by Science Service. Science Service also produces and distributes THINGS of science (monthly), produces and publishes books, and conducts the National Science Youth Program.

Printed in U.S.A. Second class postage paid at Washington, D. C. Established in mimeograph form March 13, 1922. Title registered as trademark, U.S. and Canadian Patent Offices. Indexed in Reader's Guide to Periodical Literature, Abridged Guide, and the Engineering Index. Member of Audit Bureau of Circulation.



## SCIENCE SERVICE

The Institution for the Popularization of Science organized 1921 as a non-profit corporation.

Board of Trustees—Nominated by the American Association for the Advancement of Science: William W. Rubey, University of California at Los Angeles; Wallace R. Brode, Washington, D. C. (Treasurer); Douglas Whitaker, Rockefeller Institute for Medical Research. Nominated by the National Academy of Sciences: Harlow Shapley, Harvard College Observatory; Philip Bard, Johns Hopkins University; Henry Allen Mae, John Simon Guggenheim Memorial Foundation. Nominated by the National Research Council: Leonard Carmichael, Smithsonian Institution (President); John R. Dunning, Columbia University; Benjamin H. Willier, Johns Hopkins University. Nominated by the Journalistic Profession: Gordon B. Fister, Allentown (Pa.) Call-Chronicle; O. W. Riegel, Washington and Lee University; Ralph B. Curry, Flint Journal. Nominated by the Scripps Estate: Edward J. Meeman, Memphis Press-Scimitar; Ludwell Denny, Washington, D. C.; Charles E. Scripps, Cincinnati, Ohio (Vice President and Chairman of Executive Committee).

Staff—Director: Watson Davis. Assistant Director: Dorothy Schriver. Writers: Ann Ewing, Elizabeth Hall, Faye Marley, Elizabeth Mirel, Barbara Tufty, Judith Viorst, Walter Wingo, Ruby Yoshioka. Science Youth Division: Joseph H. Kraus, Leslie V. Watkins. Photography: Fremont Davis. Production: Priscilla Howe, Marcia Nelson. Conferences: Forrest L. Snakenberg. Librarian: Margit Friedlich. Interlingua Division in New York: Alexander Gode, 80 E. 11th St., Gramercy 3-5410. Advertising Manager: Fred A. Moulton, METropolitan 8-2562, Washington, D. C.