

New!

the makers of **contoura**—the only truly portable photo-copier bring you **constat**—the new portable dry processor!

Now! you can copy anything anywhere... in **45 seconds!**

Make your own photo-copies (up to $8\frac{1}{2}'' \times 14''$) of anything printed, written, typed or drawn... without the labor, bother, errors and time-devouring detail of long-hand copying or typing and proofreading. Do it as only CONTOURA-CONSTAT can.

Both are compact, light, portable... fit in brief case. Use them wherever your source material is... library, office, home, anywhere. Both fit in desk drawer when not in use.

CONTOURA, the only copier that reproduces book or magazine pages as easily as letters, without injury to binding. CONSTAT, the portable dry processor that develops without mess, darkroom, special baths, or unpleasant fumes. From

\$96⁶⁰ to \$161⁵⁰
GUARANTEED!

Write for NEW
ILLUSTRATED
FOLDER



The makers of the world's only Truly Portable Photo-Copier

F. G. LUDWIG, INC.

512 HIGH STREET, DEEP RIVER, CONN.

easy!

Place Contoura on copy paper over subject matter. No experience needed.



quick!

Press switch about 10 seconds. Negative can be processed at once or later.



neat!

No mess! Insert negative (left) and positive (right) in Constata Dry Processor.



fast!

Turn handle... peel papers apart... a dry print only 45 seconds from original to copy!



cational Foundation, is offering its seventh \$1000 award for outstanding science writing in magazines which will be presented next December 28th in Boston, Massachusetts, at the annual meeting of the AAAS. Entries (in triplicate) must be received no later than October 10th. For additional information and entry blanks write to AAAS—George Westinghouse Science Writing Awards, 1515 Massachusetts Avenue, N.W., Washington 5, D. C.

The Gravity Research Foundation is again offering ten awards (ranging from \$50 to \$1000) for 1500-word essays on "the possibilities of discovering: (a) some partial insulator, reflector or absorber of gravity, or (b) some alloy, or other substance, the atoms of which can be agitated or rearranged by gravity to throw off heat, or (c) some other reasonable method of harnessing the power of gravity. In none of the proposed experiments," the Foundation cautions, "can outside energy be used." Entries should be received no later than October 15th. For further information write to the Gravity Research Foundation, New Boston, New Hampshire.

Journal Notes

The Lyman-alpha line has been detected for the first time in the solar spectrum according to a report in the July 15, 1953, issue of *The Physical Review*. A grating spectrograph was mounted in an Aerobee rocket, which then was flown to 81 km for the exposure. This was the only line observed in the far ultra-violet, and its total intensity outside the earth's atmosphere was estimated to be 0.05 microwatt/cm².

A compact and portable particle accelerator that has been operated between 75 kv and 250 kv to give a focused beam of protons or deuterons of 300 microamperes is described in the June 1953 issue of *The Review of Scientific Instruments*. Designed around a commercially-available Cockcroft-Walton generator, the instrument can be run for "many hours" with little or no change in beam current. The tritium (d,n) He⁴ reaction has been used to produce neutrons, with yields claimed in excess of 10^{10} neutrons per second.

"Strife About Complementarity" is the title of a long article by L. Rosenfeld in the July 1953 issue of *Science Progress*, a quarterly review published by Edward Arnold & Co., London. Bohr's famous principle is discussed from a philosophical standpoint, and Rosenfeld enthusiastically demolishes here the idea of any all-pervading determinism in the universe. This is an old controversy, but his arguments are interesting and wide-ranging.

A complete table of isotopes is given in the April 1953 number of *Reviews of Modern Physics* by J. M. Hollander, I. Perlman, and G. T. Seaborg of the University of California at Berkeley. This table, 136 pages long, is "a complete list of all the radioactive and stable isotopes of the elements, together with a number of their salient features, as recorded in the literature or by private communication by approximately December 1952". References are given for all items.