

PHIMSY

Fingerprinting art forgeries

Bernard Keisch tells me he is going to use physics to separate genuine old masters from fakes and copies. He will use activation analysis to find out what impurities show up in pigments. Differences in concentrations of trace elements in the part-per-million range in Rembrandt's (or any other's) white lead would be hard for forgers or copyists to duplicate. Keisch is exploring the method, originated in Europe in 1964, at the Mellon Institute, Pittsburgh, with support from the Atomic Energy Commission and the National Gallery of Art.

The Electron

Imagine an Electron.
It has no dimension.
Neither does it rest
Nor follow a definite path.
It can not be distinguished,
One from another.
Yet is it not the less real?

FELIX LIGHTHEAD

When is physics too pure?

The question of when an experiment is so pure as to be irrelevant and a waste of time and money is always with us and probably always will be. The other day, though, I ran into an interesting example. I am told that when Norman Ramsey of Harvard measured the dipole moment of the neutron and found it zero to an accuracy of 5×10^{-20} e cm, he was told that it was a silly experiment. In the first place a dipole moment would violate conservation of parity, and beyond that it would violate time reversal. Now we don't believe absolutely in either conservation of parity or time reversal, but we still have Ramsey's measurement of the dipole moment.

Versatility on demand

DEAR PHIMSY: Your item on Galileo (October, page 17) reminds me of a story your readers may enjoy: A teacher applying for a job in Tennessee was asked whether he believed the world was round. He replied,

"I personally believe it's round, but I could teach it either way."

THEODORE H. FREILICH
Valley Stream, N. Y.

Numeroff and physics fame

Bill Numeroff ("William J." to you) stopped in the office the other day as he often does. He brought his portrait of Louis de Broglie. We talked about how he got into the making of physicists' portraits. You have seen many of the results in PHYSICS TODAY: Otto Hahn in October, Arthur Holly Compton in September, Max Planck in June, Eugene Wigner in May, Hans Bethe in January (and many more will come, we hope).

The pictures are part of a collection that started when Numeroff wrote to Compton (author of *Atomic Quest*) suggesting that Compton tell him the most important persons of "Nuclear Energy in Our Time." Compton sent a list of 33 names; Lloyd Motz added some more. Numeroff proceeded to collect photographs and make pencil portraits from them. Later he started a collection of greats in space exploration, and together the two collections now have 130 portraits. Not all by any means are physicists. The nuclear-energy collection, for example, includes Presidents and project administrators.

When a portrait is complete, Numeroff sends it to the subject and asks for his or her signature, and 123 are autographed. Death intervened before Albert Einstein, Enrico Fermi, Lise Meitner, Max Planck and Franklin Roosevelt signed; Leo Szilard refused, apparently because of his feeling that nuclear energy was being misused.

Many signatures have come back with approval. Edward Teller liked his. "I think it is quite a good portrait," wrote Max Born, who had once threatened to sue a publisher if the publisher used a certain picture he disliked. Louis de Broglie said his portrait was better than the photograph from which it was made but misunderstood and thought the portrait was a gift. Numeroff explained that he wanted it back with a signature and got it; in return he did a

NEW FROM ELRON

SMALLEST in size
BIGGEST in performance
12Mc SCALER-TIMER



- ★ Numerical Nixie Display.
- ★ Preset Count.
- ★ Preset Time.
- ★ Integrated Circuitry.
- ★ Low Cost.
- ★ Printer Output.

SEND YOUR ORDER TODAY



IN U.S.A.:

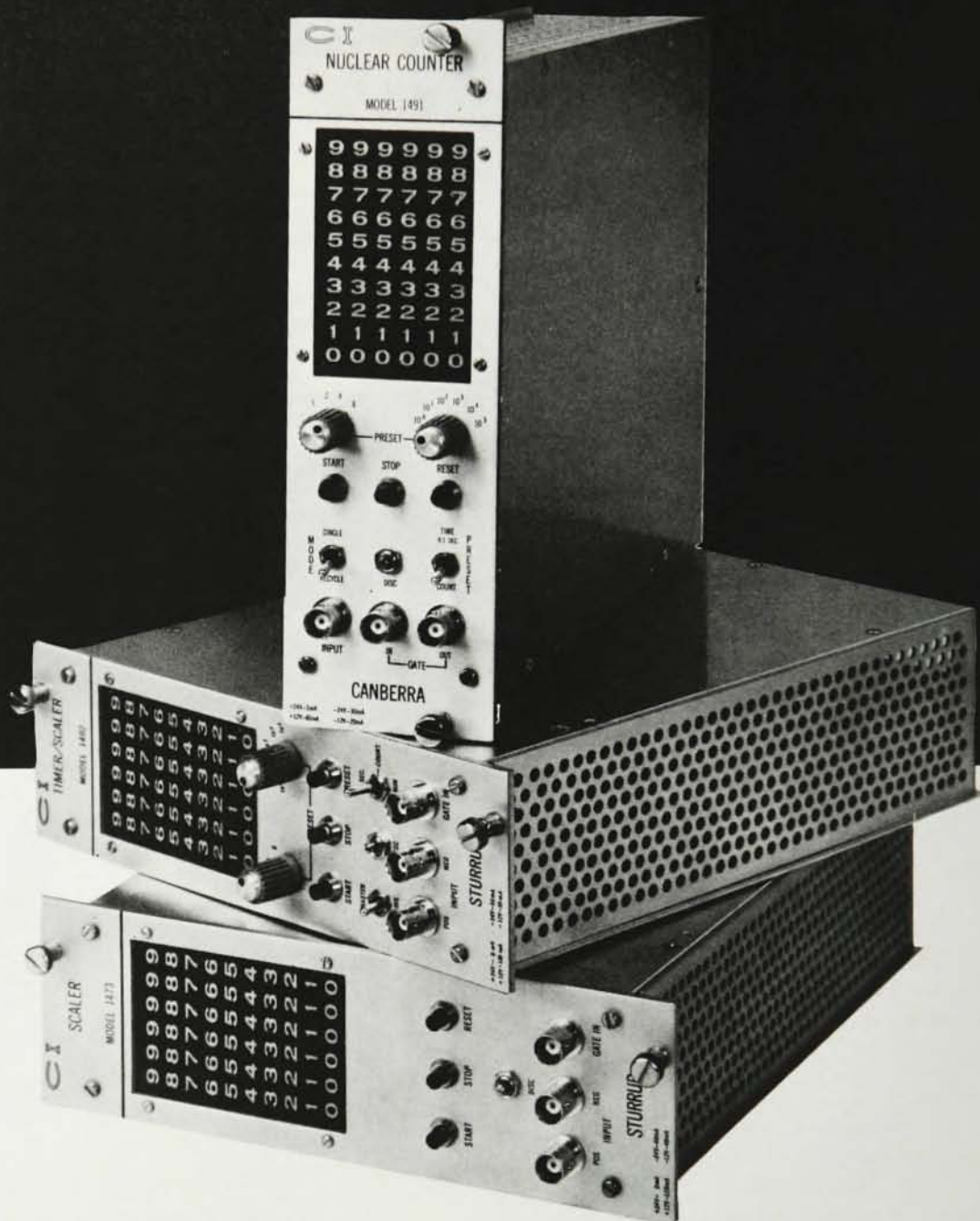
ELRON ELECTRONIC INDUSTRIES LTD.
9701 N. KENTON AVE., SKOKIE, ILLINOIS 60076



CORPORATE HEADQUARTERS:

ELRON ELECTRONIC INDUSTRIES LTD.
P.O. Box 5390, HAIFA, ISRAEL.

Why buy two when one nuclear counter will do?



Look it up in your Funk & Wagnalls . . .

Nuclear counter (nu'kle-er koun'ter), n. 1. Separate scaler and timer—in one NIM module. 2. A complete data acquisition capability with preset and serial BCD printing options. 3. A budget-saving device offering uncompromised performance. 4. A space-saving module utilizing only 2 NIM widths. 5. A module available in the 800 or 1400 series, \$750 and \$1,050, respectively. 6. Obs. Timer-Scalers.

Address your inquiries to

CANBERRA INDUSTRIES
50 SILVER ST., MIDDLETOWN, CONN. 06457

CANBERRA

second portrait just like the first and presented it to de Broglie.

Don't think PHYSICS TODAY is the only exhibitor of Numeroff portraits. Those that existed in 1957 got a good showing when the American Institute of Physics opened its present building. Numeroff couldn't attend the ceremony. He was counted as a newspaper man; too many wanted to come; one man was chosen to represent the pool, and because Numeroff was an artist, not a writer, a colleague got to go. Another exhibition was at the Cardinal Spellman museum at Regis College, July to September 1967. The National Portrait Gallery of the Smithsonian Institution would like to



NUMEROFF

have the whole collection (including not only the portraits but also more than 200 other items of interest Numeroff has collected about his subjects—autograph panels, letters, envelopes), and it is looking for a donor to buy it for about \$100 000.

Numeroff himself is mainly a newspaper man, born and bred in Brooklyn. After art training at the Cooper Union, he worked for the *New York Journal*, then the Saturday edition of the *World Telegram*, then at miscellaneous jobs having to do with advertising, selling and art direction. When it folded, he was working for the short-lived *World-Journal-Tribune*. Right now he is a director in a Neighborhood Youth Corps program.

For the future? He wants to go on with his portraits and would like to find the support to extend the collection in some of the obvious directions—all Nobel-Prize physicists, for example, or all contemporary greats. In a year, he says, he could collect the materials and do about 50 drawings. If you know someone ready to support the project, write to me. □

The Instant Laser Lab.

With the TRG 104A Laser Laboratory, all you need is an electric outlet. The basic package includes (1) the TRG 104A-2 Laser Head with integral Q-switch; (2) the TRG 104A-1 Laser Power Source; (3) the TRG 120 Laser Bench—a precision-built, rigid platform that establishes the optical axis for a complete lab. The basic system can also be equipped with the optional accessories shown below, plus a set of attachments specifically designed for them. (A special feature of these attachments is a hinge about which the accessory can be pivoted to remove it from the previously established optical path.) The Laser Laboratory is one in a broad line of high-performance, in-stock laser systems and measurement equipment developed by the Melville Space and Defense Systems Division of Control Data Corporation. Call or write for detailed information on the Laser Laboratory and other high-quality laser products. Laser and Electro-Optical Department, Melville Space and Defense Systems Division, Control Data Corporation, Section E, 535 Broad Hollow Road, Melville, New York 11746. Phone: (516) 531-0600.

WHAT NEXT IN LASERS? ASK...

CONTROL DATA

CORPORATION

SPACE AND DEFENSE SYSTEMS

