Breakthrough In Thyroid Testing

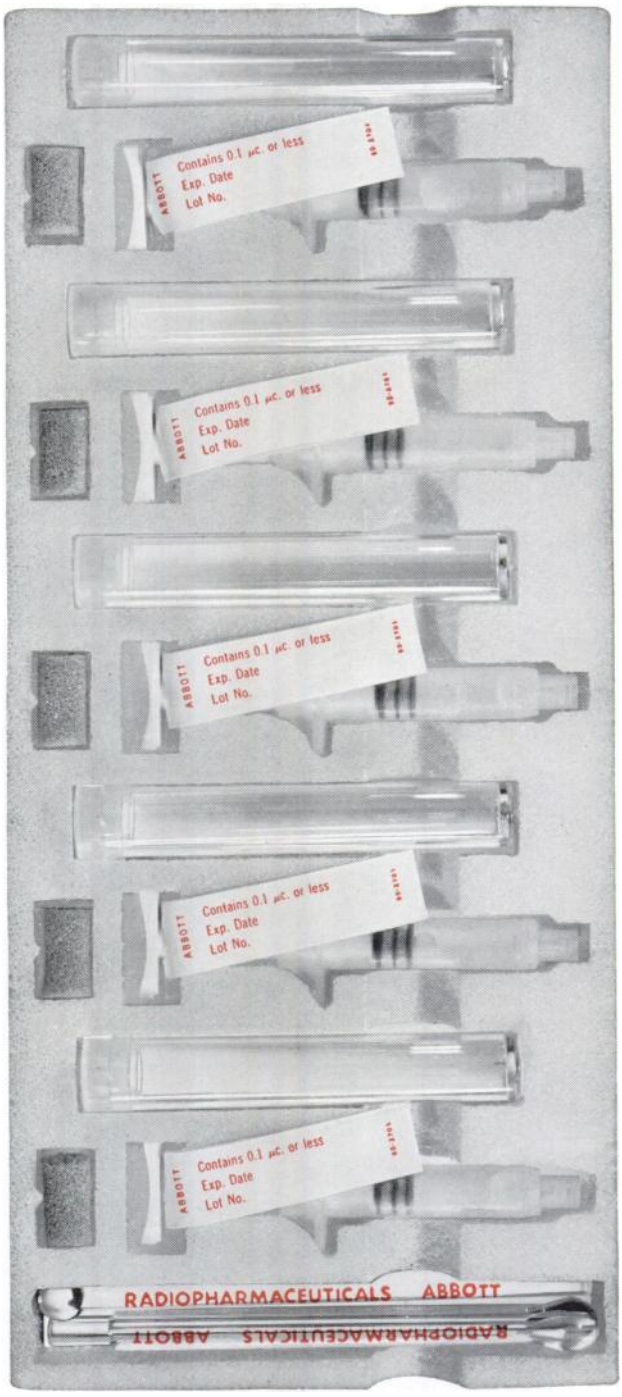
Announcing

Trademark

TRIOSORB

T-3 DIAGNOSTIC KIT*

An in vitro **test unmatched in accuracy, speed & convenience**



Triosorb represents a major breakthrough in thyroid testing because it replaces the red blood cells in the test. Triosorb sponge is a polyurethane foam in which is embedded a pre-measured ion exchange resin.

ACCURACY: Because only serum is used (instead of red blood cells) and there are only 3 washings, accuracy is greatly increased. Triosorb also permits accurate evaluation of thyroid function under certain circumstances where other standard methods may not be applicable. For example, it may be used following the administration of iodine-containing compounds or during the course of treatment with thyroid medications.

SPEED: Triosorb sponge can be washed quickly. The 3 washes can be completed in one or two minutes—compared to the red cell technique requiring 5 time-consuming washes and centrifugations. Triosorb does not require an incubator or shaker.

CONVENIENCE: It is in a disposable kit form ready for immediate use at room temperature (25° C.). Correction factors are available if room temperature varies.

SAFETY: No dilution or pipetting of radioactive material is necessary. Since the patient receives no radioactive material, the test can be used in children, pregnant women, or in adults who fear ingestion of even tracer doses of radioactivity. Each syringe contains only 0.1 μc. or less of I^{131} activity—an amount so minute that no special licensing is required by the AEC for its use.

FLEXIBILITY: The test does not require the presence of the patient for the determination of the radioactivity. The serums can be frozen and saved until a sufficient number has been collected to run a rack full of tubes at one time.

SUPPLIED: Each Triosorb Diagnostic Kit is made up of two trays (such as the one pictured to the right) containing: 10 syringes filled with Triomet®-131 [liothyronine I 131, formerly called Radio-L-triiodothyronine (I^{131})], 10 Triosorb Sponges, 10 plastic test tubes with caps, 2 plungers, and 2 aspirator tips.

Triosorb is available to **all** physicians, hospitals and clinical laboratories—AEC licensing is **not** required.

ABBOTT LABORATORIES
PIONEERS IN RADIO-PHARMACEUTICALS
North Chicago, Illinois / Oak Ridge, Tennessee

*Patent applied for.

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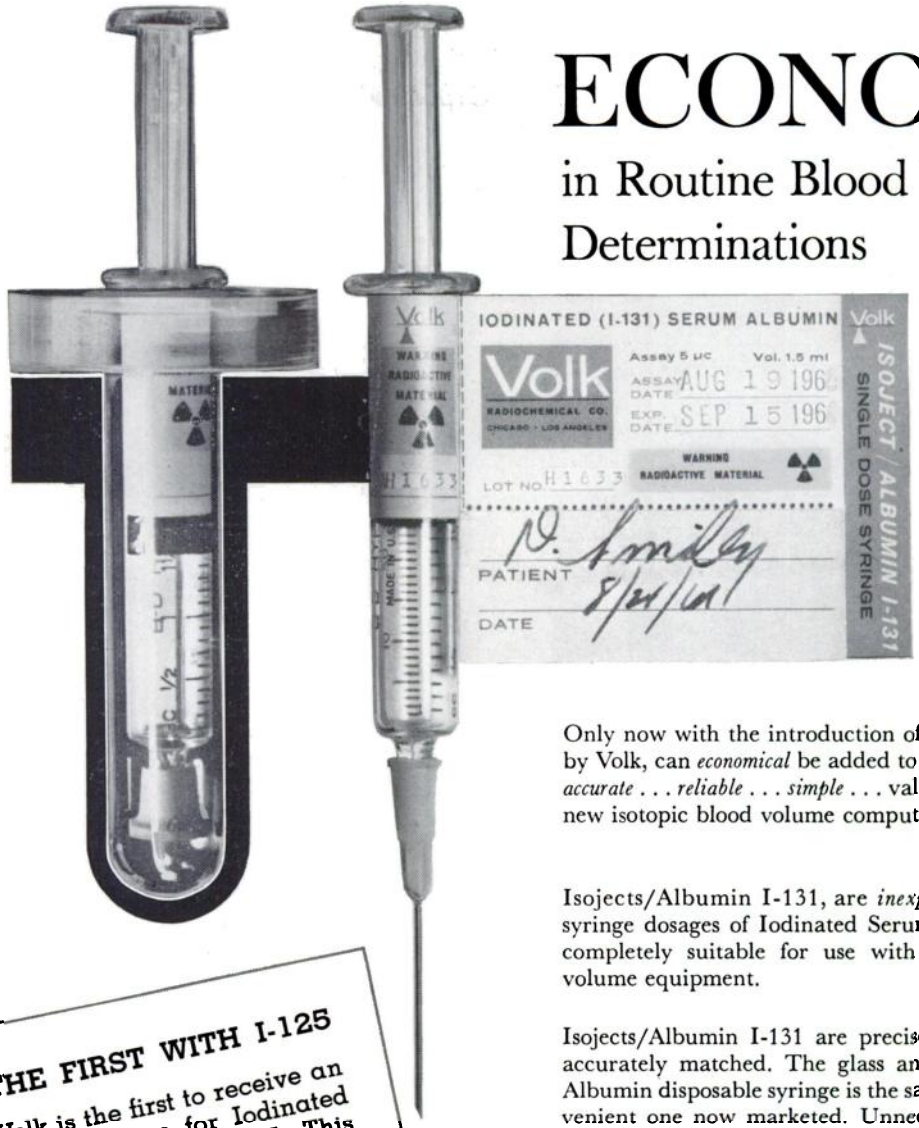


ECONOMY

in Routine Blood Volume Determinations

Only now with the introduction of Isojects/Albumin by Volk, can *economical* be added to the terms: *fast . . . accurate . . . reliable . . . simple . . .* validly describing the new isotopic blood volume computer technic.

Isojects/Albumin I-131, are *inexpensive* individual syringe dosages of Iodinated Serum Albumin I-131, completely suitable for use with automatic blood volume equipment.

Isojects/Albumin I-131 are precisely measured and accurately matched. The glass and rubber Isoject/Albumin disposable syringe is the safest and most convenient one now marketed. Unnecessarily elaborate packaging has been eliminated to make possible a unit dosage cost of less than $1.50 per measurement with volume purchasing.

Available in 5 and 10 microcurie potencies. All necessary adjuncts—disposable needles, well-crystal guard tubes, blood sample tubes, and Isoject Adaptors for any machine—are furnished by Volk.

For further details or to order: Call Collect

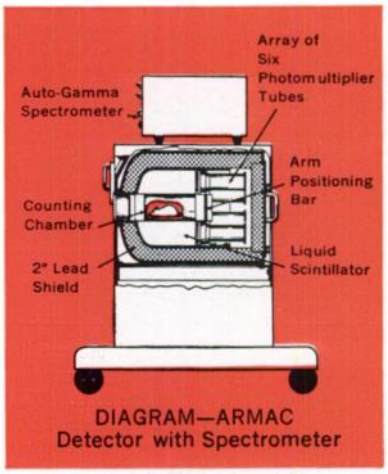
THE FIRST WITH I-125

Volk is the first to receive an N.I.H. license for Iodinated Serum Albumin I-125. This 60-day half-lived, low radiation dose, product is also available in Isoject/Albumin form and usable in modified automatic equipment.

Volk RADIOCHEMICAL CO.

CHICAGO	LOS ANGELES	NEW YORK	WASHINGTON, D. C.
8260 ELMWOOD, SKOKIE	803 N. LAKE, BURBANK	P. O. BOX 345	P. O. BOX 335
TEL. 312 673-3760	TEL. 213 849-6023	NEW YORK 5, N. Y.	SILVER SPRINGS, MD.
TWX 312 677-6768	TWX 213 846-7301	TEL. 212 891-9091	TEL. 301 587-5337

ARMAC®...
for rapid, accurate measurement of radioactivity



DIAGRAM—ARMAC
Detector with Spectrometer

The Packard Model 445 Armac Scintillation Detector is an extremely sensitive, large sample-volume (up to two liters) well-type detector designed for measuring radiation from gamma-emitting isotopes.

Because its high counting efficiency and sensitivity permit shorter counting times, the Armac Detector enables the research scientist to quickly and accurately determine the presence of low levels of radioactivity in bulk samples including meat, milk, water, blood, feces, soil, or tissue with little or no sample preparation.

IDEALLY SUITED FOR *IN VIVO* RESEARCH

The Armac's 4-pi counting geometry and high counting efficiency require that only very small doses of radioactivity be administered to small experimental animals during *in vivo* research on retention and excretion of various gamma-emitting isotopes. Sacrificing is unnecessary and the animal acts as its own control for repeated experimentation.

The Armac Detector is also useful in nutritional studies and clinical diagnosis where changes in the amount of circulating radioactivity in the blood can be directly related to other body functions. These changes can be measured accurately and rapidly using the blood-rich portion of the patient's forearm which can be accommodated in the Armac's counting chamber.

COMPLETE SYSTEMS

An Armac Detector System, comprised of the Model 445 Armac Scintillation Detector and any of several Packard Spectrometers and related control units, recording ratemeters, etc., can be supplied to meet your needs. Any Armac Detector System can be readily modified or expanded to meet changing research requirements.

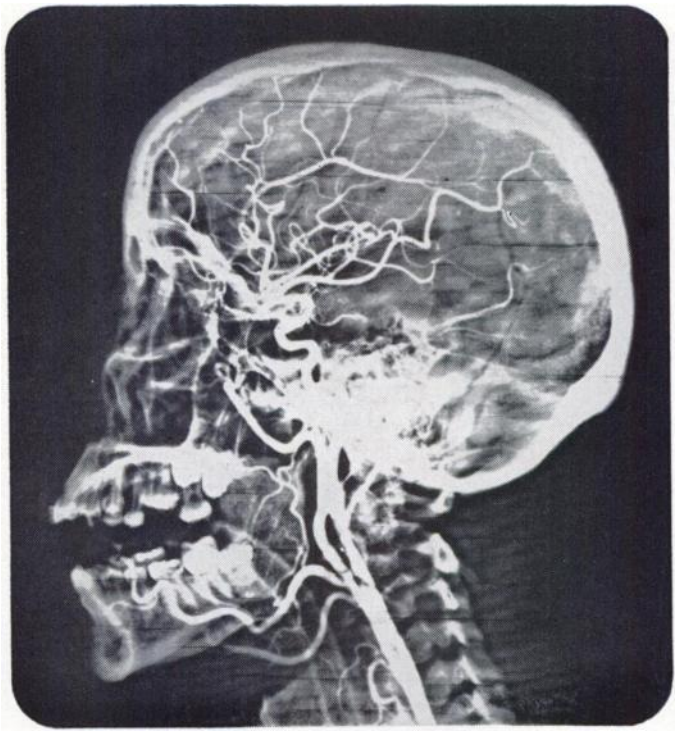
Ask your Packard Sales Engineer for complete details, or write for Bulletins.

(Photograph) COUNTING LIVE FISH IN FLOWING STREAM WATER. *Photo courtesy of* Oak Ridge National Laboratory *operated by* Union Carbide Corporation *for the* U. S. Atomic Energy Commission.

Packard

PACKARD INSTRUMENT COMPANY, INC.

BOX 428 • LA GRANGE, ILLINOIS • AREA CODE 312 • 485-6330



"Of particular value"[1] in delicate radiography

Excellent visualization, minimal discomfort—these are the features of Renografin (Squibb Methylglucamine Diatrizoate Injection U.S.P.) in cerebral angiography.[1,2] It produced similarly impressive results in abdominal aortography.[4,5] Most reactions reported were of a transient nature.[1,2,5]

A "superior contrast medium"[6] in intravenous urography. In three large series, diagnostic films were produced in over 90% of patients of all ages. No serious reaction occurred and minor side effects were few.[3,6,7]

RENOGRAFIN®

SQUIBB METHYLGLUCAMINE DIATRIZOATE INJECTION U.S.P.

Dosage and Administration for Excretion Urography: Renografin-76 (methylglucamine diatrizoate)—20 cc., I.V., (adults), and 4-16 cc., I.V. or I.M., (children). Renografin-60 (methylglucamine diatrizoate)—25 cc., I.V., (adults), and 5-20 cc., I.V. or I.M., (children). NOTE: Give I.V. injection slowly.

Supply: Renografin-76 (Methylglucamine Diatrizoate Injection U.S.P.) providing 76% methylglucamine diatrizoate—20 cc. ampuls and vials. Renografin-60 (Methylglucamine Diatrizoate Injection U.S.P.) providing 60% methlyglucamine diatrizoate—25 cc. ampuls and vials; 100 cc. bottles. All ampul packages contain 1 cc. ampuls (all vials contain sufficient excess) for testing.

Side effects: Flushing, nausea, and vomiting; transient pain on injection. **Precautions:** I.V. test dose may be given. Stop examination upon evidence of allergy. In rare instances, anaphylactoid reactions may occur. Use with caution in severely debilitated patients and in cyanotic infants, patients with chronic pulmonary emphysema, advanced arteriosclerosis, severe hypertension, cardiac decompensation, and recent cerebral embolism or thrombosis.

For full information, see your Squibb Product Reference or Product Brief.

References: (1) Doehner, G. A., and Brugger, G. E.: New York J. Med. *60*:4022, 1960. (2) Balkissoon, B., et al.: J. A. M. A. *169*:676, 1959. (3) Mathews, P. W., Jr.: South. M. J. *52*:170, 1959. (4) Agnew, C. H., and Cooley, R. N.: Texas State J. Med. *55*:945, 1959. (5) Greenspan, R. H., et al.: Am. J. Roentgenol. *83*:1034, 1960. (6) Utz, D. C., and Thompson, G. J.: Proc. Staff Meet. Mayo Clinic *33*:75, 1958. (7) Orr, L. M., et al.: J. A. M. A. *169*:1156, 1959.

SQUIBB Squibb Quality – the Priceless Ingredient

SQUIBB DIVISION Olin

Five Radiation Lab Functions You Can Perform Best with a GAMMASCOPE®

1. Using mixed tracers in absorption studies

The 100-channel Gammascope will function as a dual-peak spectrometer, clearly displaying the energy peaks of both elements on the visual and printed spectrum. Both elements are counted automatically and simultaneously.

2. Working with short-lived isotopes

Half-lives of less than a day are problems for scanning devices, but the Gammascope, with fast automatic data accumulation, can complete a spectrum analysis in far less time than it takes to materially affect the isotope's activity.

3. Determining isotope purity

Monitoring samples to determine their purity or to check the specifications of matched samples are other laboratory processes that can be completed quickly and accurately with the greater resolution, counting speed and readout efficiency of the Gammascope.

4. Using several isotopes in succession

It is a simple matter to recalibrate the Gammascope for each new element used. Simply set the adjustable visual window to intensify the primary energy peak. The window adjusts to any width (number of channels) and any location on the energy spectrum.

5. Making diagnostic and experimental spectrum analyses

In whole body counts, uptake studies and other biophysical radiation applications, the Gammascope will complete a spectrum analysis in a fraction of the time a scanning spectrometer takes. All pulses are stored in the 100-channel magnetic core memory while the cathode-ray tube simultaneously displays the build-up of the spectrum. To make a complete analysis you calibrate in one step, start the analysis and the automatic accumulation takes over. The completed count — determined by the pre-set live timer — can be printed out on the digital printer.

The Gammascope pulse analysis system includes built-in linear amplifier, high voltage supply, visual display and external printer — $5990 (export slightly higher).

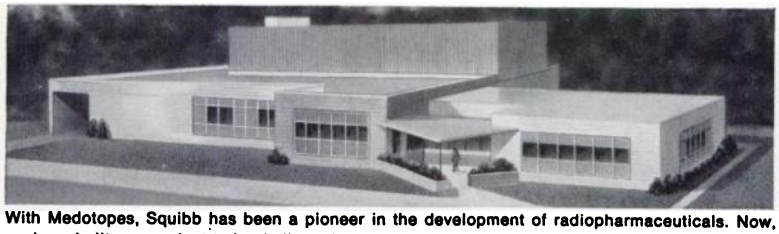
For complete data contact the nearest TMC office or Technical Measurement Corporation, 447 Washington Avenue, North Haven, Connecticut.

TMC

TECHNICAL MEASUREMENT CORPORATION


SQUIBB
OPENS A
NEW
DOOR...

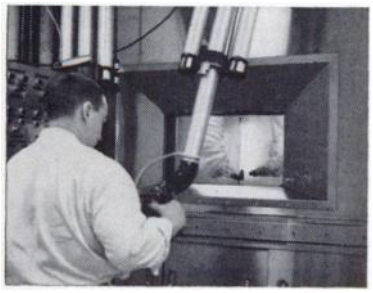
TO THE MOST COMPLETE PLANT BUILT EXCLUSIVELY FOR THE PRODUCTION OF RADIOPHARMACEUTICALS



With Medotopes, Squibb has been a pioneer in the development of radiopharmaceuticals. Now, we have built a new plant to be dedicated June 4, 1964. This plant has been specifically designed to provide the best research and production facilities for radiopharmaceuticals and to expedite the delivery of these agents to the physician.

Routine use of radiopharmaceuticals in clinical medicine and research has only begun; Squibb is prepared to continue its leadership in this new field.

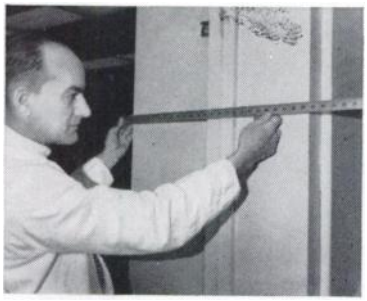
This modern plant makes use of countless contributions from engineering to achieve a precision pace in safe and accurate production.



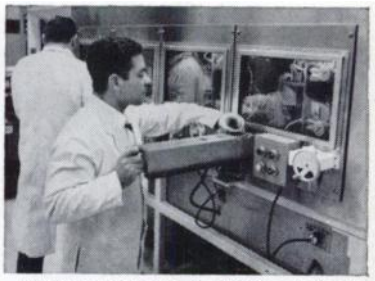
When orders arrive by special wire service, pneumatic tubes speed them to the area where Medotopes are formulated.

Twenty-eight-inch walls of special high-density concrete surround the counting room, assuring freedom from disturbing influences.

The shielding of the cave systems weighs 450,000 lbs.!



Manufacturing processes are carried out under hoods, which shield operators from direct contact. For the processing of special radiopharmaceuticals, there are "sterile" rooms into which purified air is pumped.



Specially designed by Squibb engineers, this push-button machine pours the radiopharmaceutical, caps its container, and drops it into a protective "pig."

All radiopharmaceuticals must meet rigorous quality control specifications. After a final measurement to ensure the assay is correct, waiting trucks speed the package directly to the customer or to one of three airports convenient to the plant. Every order traveling outside the immediate area is shipped by air.

Behind the scenes are exacting safeguards: elaborate decontaminating systems for air, liquid, and solid wastes; regular health checkups for employees, scrupulous regulations for entering and leaving the plant; specifications so rigorous that they actually exceed the requirements of the Atomic Energy Commission.

Your Squibb representative is prepared to answer questions about Medotopes. Or write directly to us.

MEDOTOPES®
SQUIBB RADIOPHARMACEUTICALS

SQUIBB Squibb Quality—the Priceless Ingredient

SQUIBB DIVISION Olin

universal II scintiscanner

Shown with 3" Detector and Photoscanner

Scans in ANY PLANE with Patient in Any Position

Model ST-300, 3 inch Scintimeter, complete with lead shielding and four focusing collimators, provides minimum background count and maximum resolution.

Variable Scan Speed and Adjustable Spacing

The only scanner that accepts both 2 and 3 inch detectors for scanning in any plane, Curtis Nuclear's Model SN-250 Scintiscanner is designed to scan the brain, heart, liver, kidneys and other vital organs with no discomfort to the patient. A one operator instrument, its modular construction permits its use with a wide selection of detectors, collimators, and counting and recording instruments. Features includes "joy stick" positioning, no large "over-the-patient" structure, illuminated outline of scan area, and universal head assembly that allows a multitude of tests in addition to scanning.

When connected with the dual, transistorized Photoscanner, Model PS 123T, the scanner provides a choice of either continuous film exposure (rate) or periodic exposure (integral).

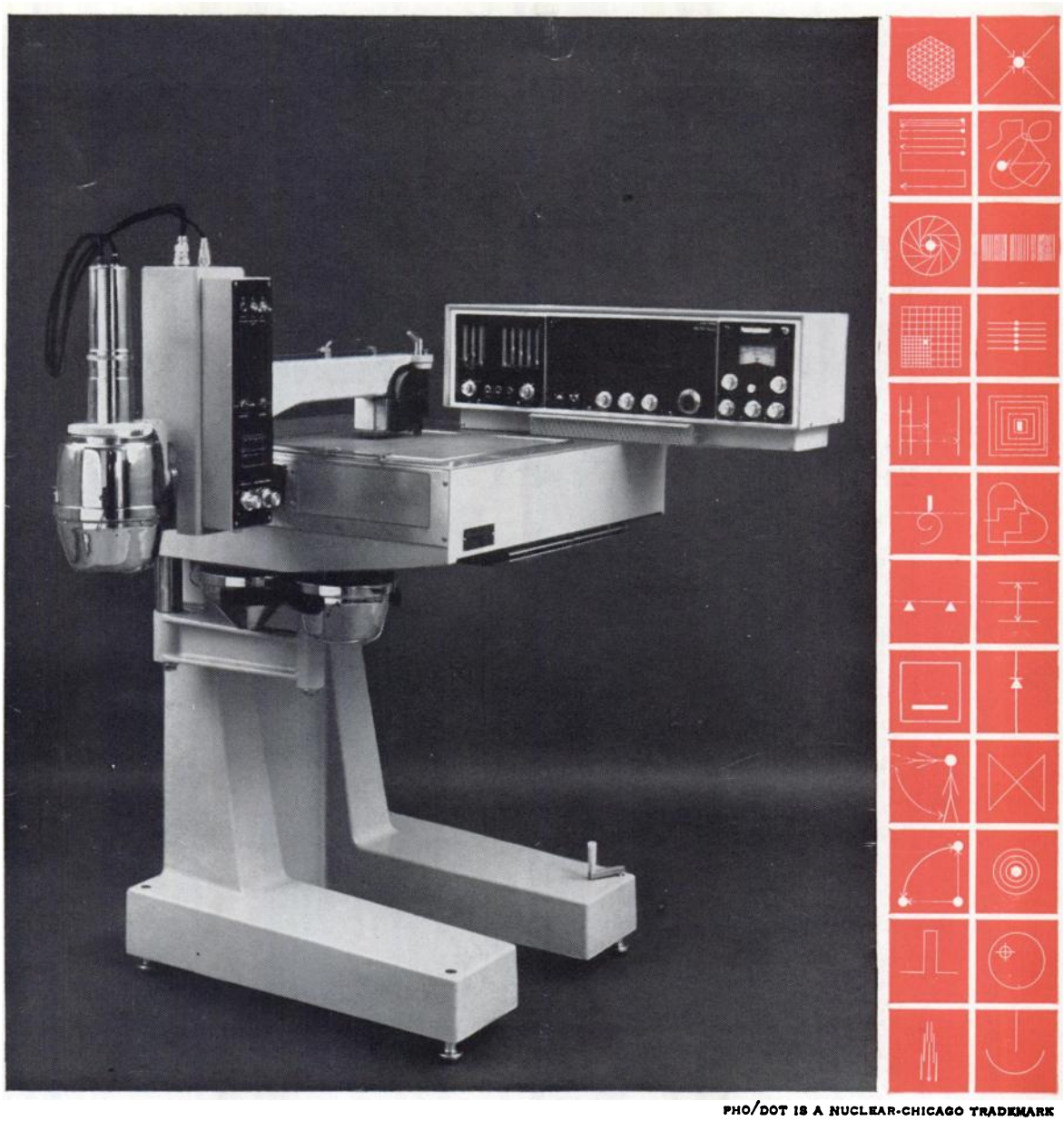
Write for complete information and specifications to . . .

CURTIS NUCLEAR CORPORATION

"first in scanning"

THE ORIGINAL REED-CURTIS

1948 East 46th Street, Los Angeles, California 90058



PHO/DOT IS A NUCLEAR-CHICAGO TRADEMARK

THIS IS PHO/DOT

It is the definitive photo-mechanical isotope scanner. It offers a host of operating and performance superiorities that take the guesswork out of scanning and that establish a new order of fidelity, convenience, and reliability.

Nuclear-Chicago's Model 1735 PHO/DOT Isotope Scanner produces a superb display of the location and concentration of isotopes in organs or areas of the body. Data is recorded on X-ray film by a photorecording system and is also printed on paper by a dot recording system.

The instrument incorporates 24 significant advances in both human engineering and electro-mechanical design.

These advances are the key to PHO/DOT's increasing acceptance and are portrayed in red by the symbols above. They contribute materially to simplified procedures and all but eliminate the chance of operator error.

Your Nuclear-Chicago sales engineer will be happy to review PHO/DOT for you in detail. Please consult him or write for our PHO/DOT brochure.

NUCLEAR-CHICAGO

A DIVISION OF NUCLEAR-CHICAGO CORPORATION

313 Howard, Des Plaines, Illinois 60018