



## This sponge

By eliminating the disadvantages of earlier methods, the Triosorb Sponge has achieved a real breakthrough in thyroid testing. **It is an in vitro test unmatched in accuracy, speed and convenience.**

**Accuracy:** Because factors such as red blood cells and exogenous iodine have been eliminated from consideration in the Triosorb Test, it is unmatched in accuracy.

**Speed:** With only 3 washes and no need for double pipettings, shakers, or incubators, the Triosorb Test can be

# revolutionized thyroid testing!

more rapidly performed than any other T-3 test.

**Convenience:** Triosorb is in a disposable kit ready for immediate use at room temperature, making it the simplest and most convenient thyroid function test to perform.

McAdams\* reported that "The resin sponge (Triosorb) technique is superior to the erythrocyte method for performing the  $I^{131}$  T3 test in terms of simplicity, convenience and elimination of errors characteristic of the erythrocyte procedure."

**Triosorb is available to all doctors, hospitals and clinical laboratories—AEC licensing is not required. Because Triosorb will enable far more screenings to be performed, this procedure may soon become as standard as today's blood counts and urinalyses.**

901202



\*McAdams, G. B. and Reinfrank, R. F., *Jrnl. Nuclear Med.*, 5:112, Feb., 1964.

**TRIOSORB®**  
T-3 DIAGNOSTIC KIT  
ABBOTT LABORATORIES NORTH CHICAGO, ILL.



**It takes a pretty special instrument package to give you simple, high-performance liquid scintillation counting.**

**Only the Mark I Liquid Scintillation Computer has what it takes.**



Model 6860 (Ba<sup>133</sup> external standard)  
Model 6863 (Ra<sup>226</sup> external standard)

Everything about our Mark I™ Liquid Scintillation Computer is there to help you cut down on your work load. To let you handle all sample types and energies, quickly and easily. To give you unmatched counting accuracy and system reliability.

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1. Exclusive, all-electronic data computer with integrated microcircuits.
2. Three separate, identical counting channels.
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4. All operating controls located on front panel within easy reach.
5. Automatic external standardization with choice of Ra<sup>226</sup> or Ba<sup>133</sup> standard.
6. Three scalers with 0.2  $\mu$ sec resolution. Crystal-controlled timer.
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8. No high-voltage adjustments necessary.
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17. Continuous presentation of number of sample being counted.
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19. Set-up for single-, dual-, or triple-labelled samples.
20. Guaranteed performance specifications.

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NUC-8-5-058

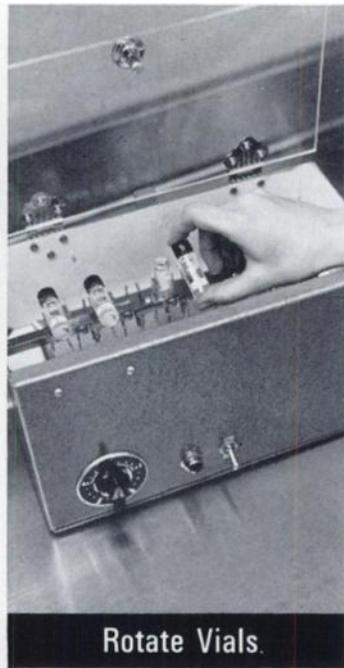


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CORPORATION**

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- Unmatched accuracy for hypo-, eu-, or hyperthyroid evaluation. Eliminates variables due to problems of serum handling.
- Takes less technician time than any other T-3 test . . . almost half.
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- Count patient serum only once in well counter.
- TBI test kits cost less, too. Permits use as a screening test.

\*In tests performed on over 2200 patients, the TBI test was reported in agreement with final clinical diagnosis in over 90% of the cases. Ref: Scholer, J.F., J. of Nuclear Med., May '63, p. 192.

Write today for further information.

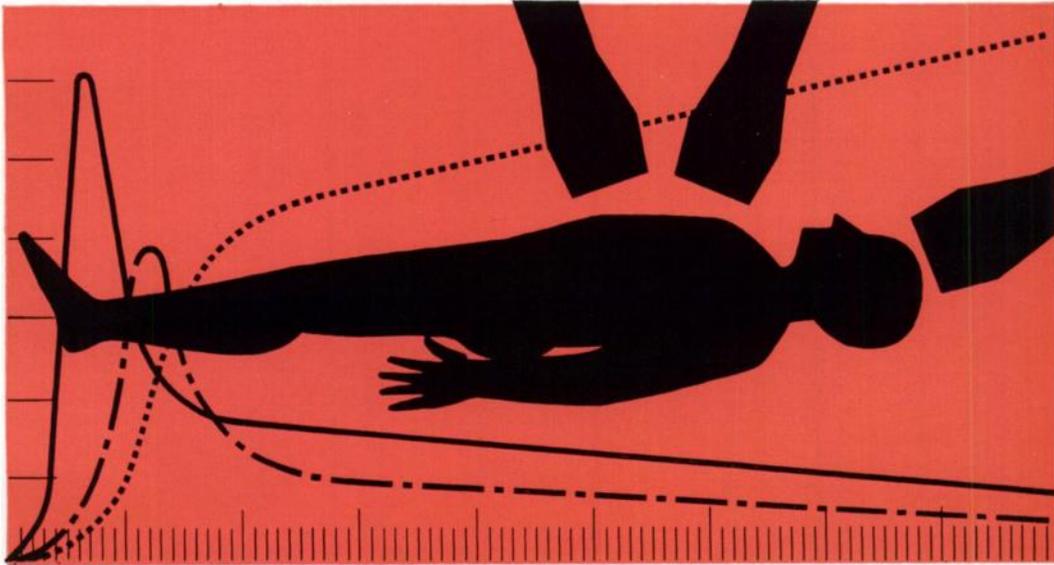


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Our offer: to work with you in any and every way to make your entry into this area as painless as possible. Specifically, we would be

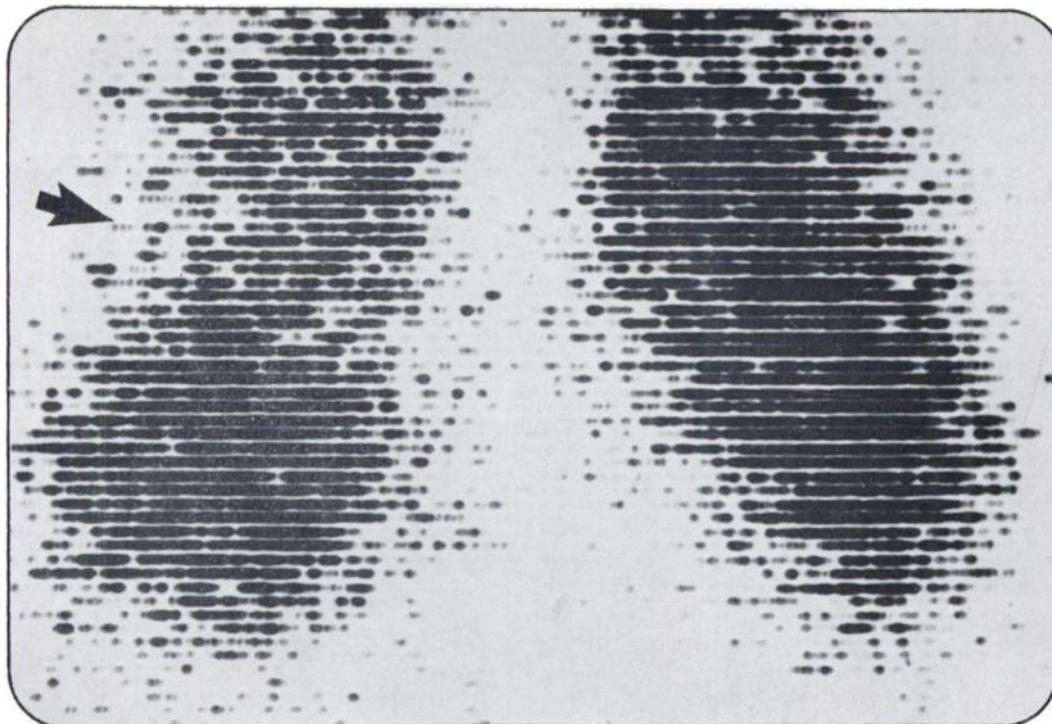
happy to talk with you about these methods, to provide the necessary information on existing procedures, to help you plan your radio-tracer studies, to assist in interpreting results, and to aid in the training of your staff in all phases of radioisotope dynamic function methodology. Or, to work with you in any other way that you may wish. With no obligation.

Then it will come as no surprise that we can also help you select the equipment that makes sense for your needs. And to begin with, this can be a relatively simple outfit; your first commitment can be limited to the basic equipment since refinements can be added easily as needed. You should also know that our line of instruments for dynamic function work of every kind is *unmatched in diversity or quality*.

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Photostatic of lungs of female patient, aged 50, showing pulmonary emboli.

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- Has a suitable gamma energy for scanning and delivers a low radiation dosage to the patient.
- It is non-toxic.

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**Dosage and Scanning Procedure:** Recommended scan doses of 150 to 300 microcuries of aggregated radioalbumin depending on the instrumentation available and the technics employed. Scanning immediately follows administration of intravenous injection. Patient may be placed in a prone or supine position.

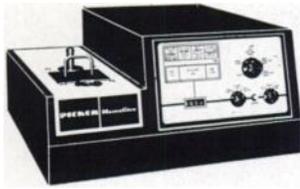
**Side effects and Precautions:** There have been no reported cardiovascular or other untoward effects attributable to Albumotope-LS. The product appears to possess no antigenic properties. One patient with a known history of angioneurotic edema, who had been given Lugol's solution in conjunction with aggregated radioalbumin similar to Albumotope-LS, developed urticaria. Extensive clinical use of Albumotope-LS has not borne out the hypothetical

possibility that particles of large size might induce deleterious cardiovascular or cerebrovascular effects.

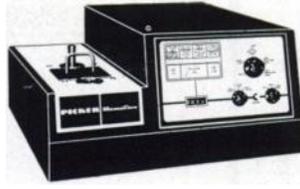
Radioisotopes should not be used in pregnant women, nursing mothers, or in patients under 18 years of age unless indications are very exceptional.

**Available:** As a sterile, pyrogen-free, aqueous suspension. Each cc. contains approximately 1 mg. aggregated human serum albumin labeled with 800-1500 microcuries of Iodine-131 at time of manufacture. Also contains 0.9% benzyl alcohol as a preservative.

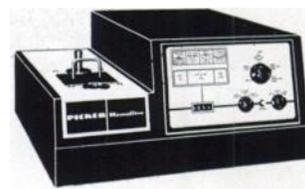
\*Quinn, J. L., III, Whitley, J. E., Hudspeth, A. S. and Watts F. C.: An approach to the scanning of pulmonary infarcts, J. Nuclear Med. 5:1, 1964.



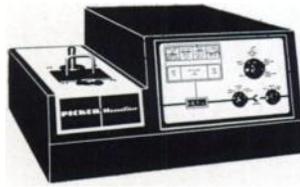
**BODY WATER**



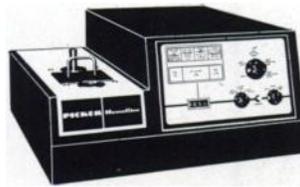
**Thyroid Uptake\***



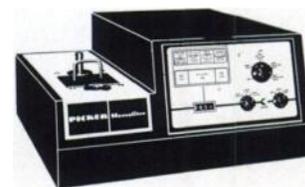
**Urinary Rose Bengal Excretion**



**Schilling Test**



**BLOOD VOLUME**



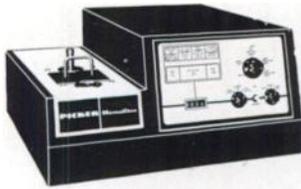
**Plasma Disappearance**

***Now then, isn't it funny  
that we named it Hemolitre®  
if the measurement of blood volume  
is but one of its many talents?***

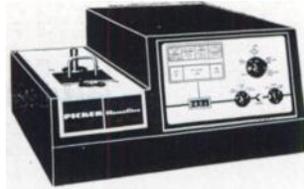
Yes. Except that it now leaves us with this not-so-funny problem: to explain, credibly and compellingly, that this instrument's capabilities extend far beyond the measurement of blood volume. Read on if you'd like to hear about this truly versatile instrument useful for essentially all static nuclear medicine techniques.

Basically, the Hemolitre is a complete, self-contained instrument for precise measurement of gamma radioactivity. As such, any of the clinical procedures using gamma-emitting

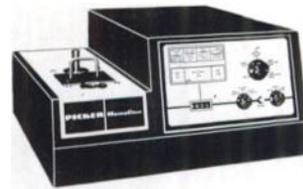
radioisotopes can be performed easily with the Hemolitre. More specifically, the Hemolitre's usefulness extends to the measurement of small samples with low radioactivity (T-3 and PBI tests, red cell survival, plasma disappearance, fat absorption, iron binding, body-water measurement, etc.). Or tests involving bulk samples (Schilling test, urinary rose bengal excretion, counting of feces, etc.). Or tests using an external scintillation probe (thyroid uptake, placenta localization, regional perfu-



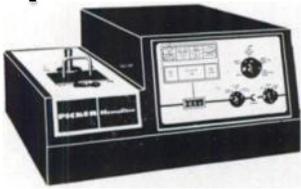
**RED CELL SURVIVAL**



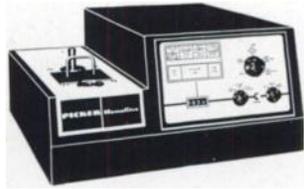
*Placenta Localization\**



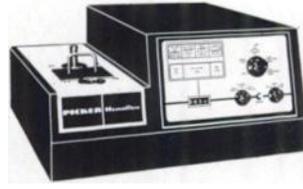
**PBI**



**Fat Absorption**



**T-3**



*Iron Binding*

sion, etc.). Or even blood volume measurement. Versatile instrument.

Also worthy of emphasis: the Hemolitre is fully transistorized, gives direct reading in per cent, and has automatic background correction. And Picker service everywhere.

So, if you are interested in a seasoned, dependable instrument for blood volume measurement and/or other static nuclear medicine procedures, think Hemolitre. The name may be limiting, the instrument certainly isn't.

(Finally, *why* did we name it Hemolitre if its versatility extends so far beyond the measurement of blood volume? Simple. It was born, baptized, and known to so many people as the Hemolitre *before* the full development of its capabilities. It just seemed much too complicated—and, hopefully, unnecessary—to start changing its name at this late date. And the same reasoning applies to the price: it, too, remains the same.)

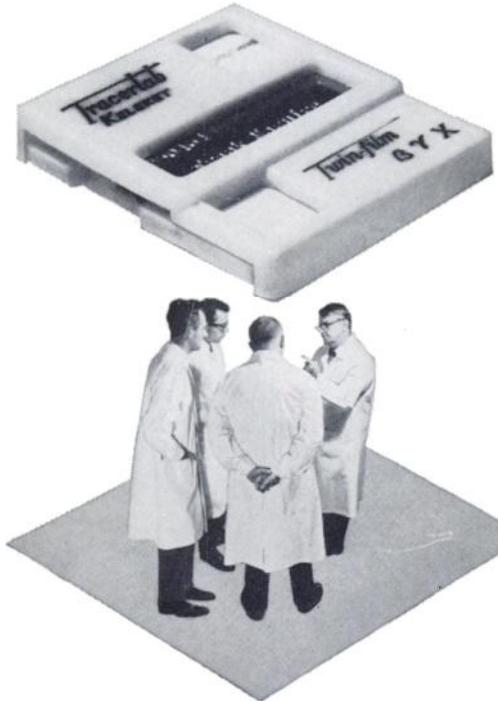
Write for the Hemolitre brochure HNM4.

\*With external detector.

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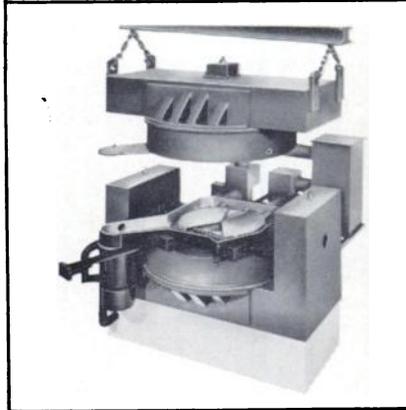
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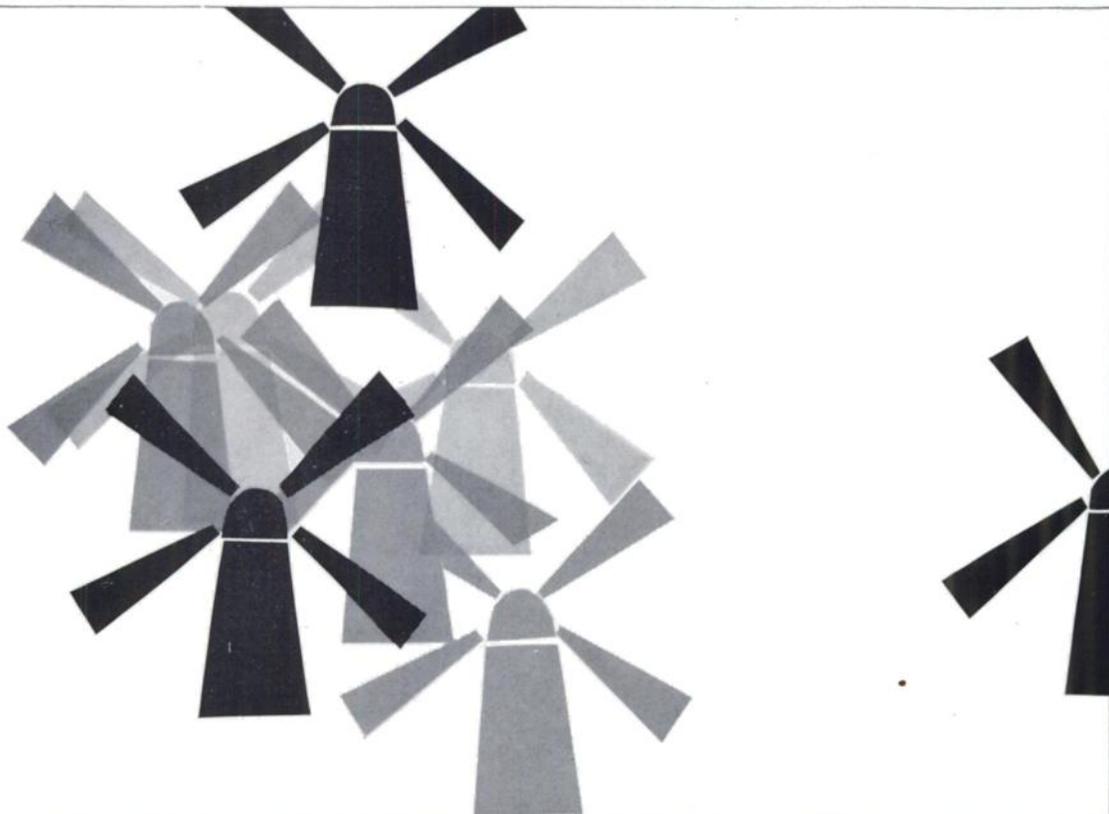
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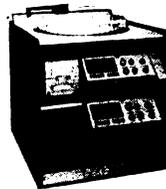
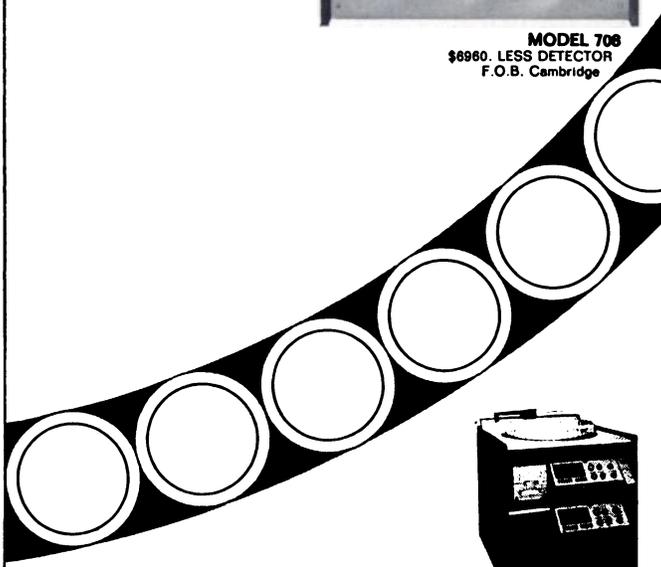
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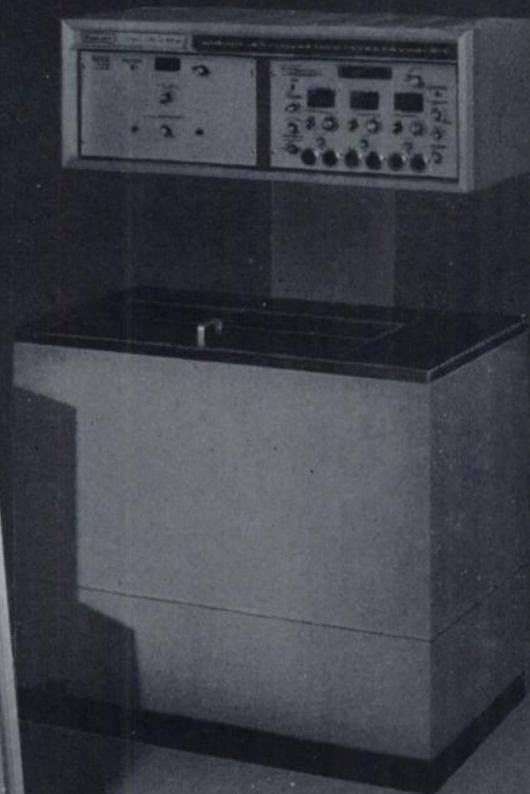
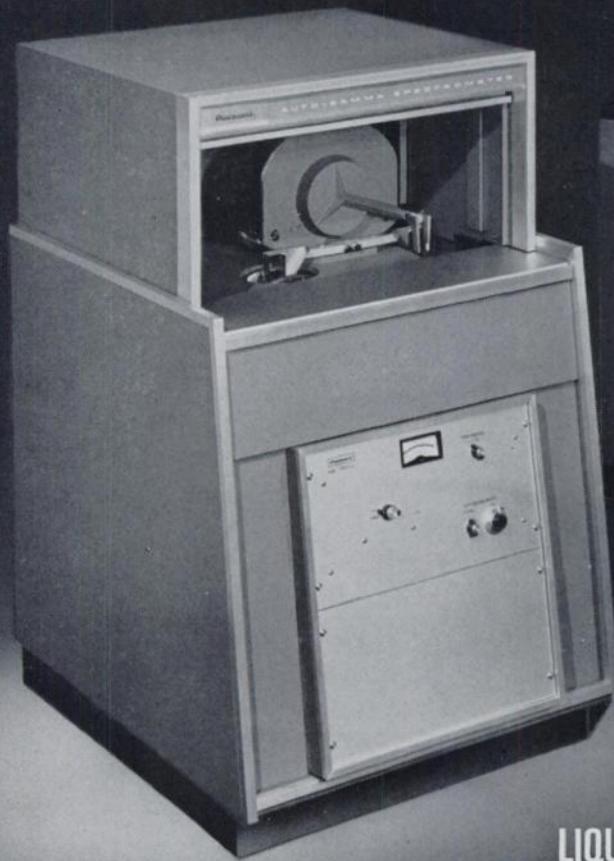
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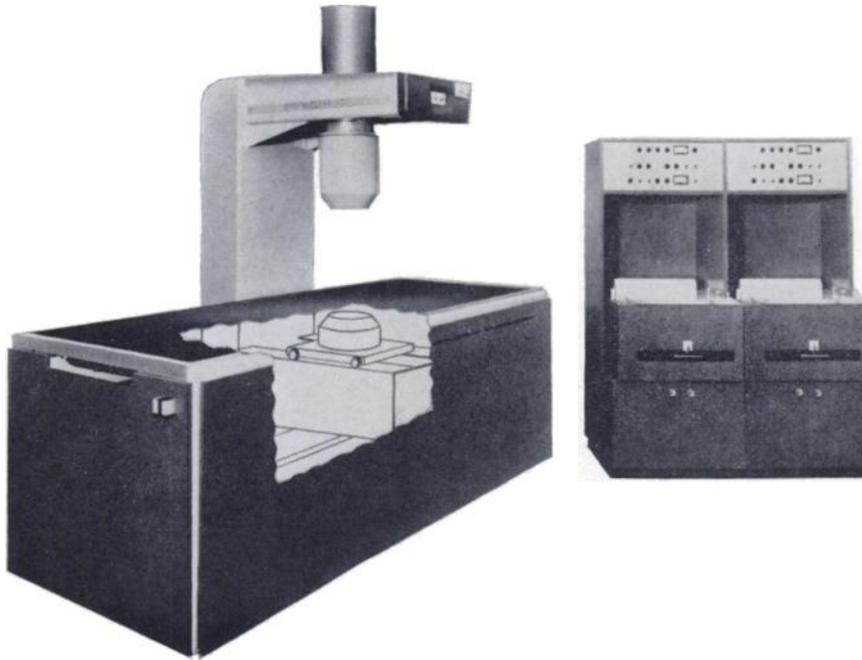
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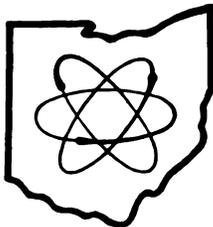
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## **NUCLEAR MEDICINE**

Edited by William H. Blahd, M.D.

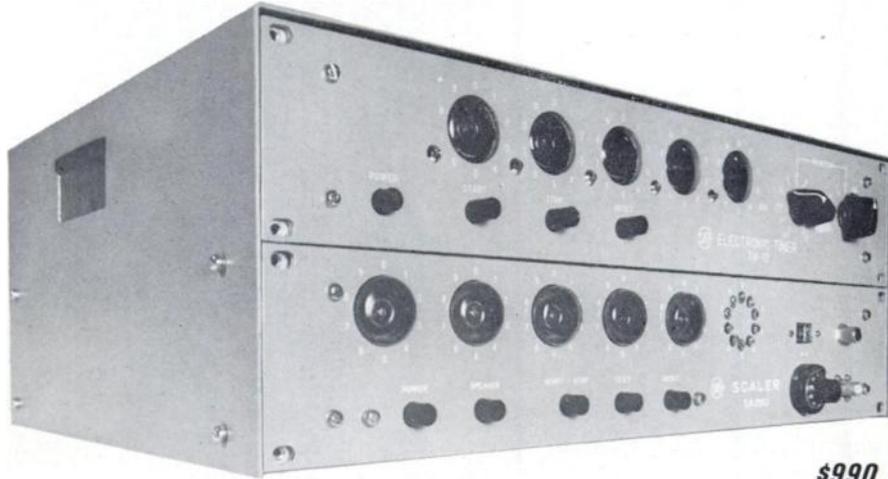
Dr. Blahd's description of the fundamentals and newest developments in nuclear medicine features a discussion of thyroid physiology and radioisotope tests of thyroid function. The book includes the most important forms of radioisotope therapy in the treatment of hyperthyroidism, thyroid cancer, and blood diseases. Distinguished national and international experts have contributed to this work, and although the approach is primarily clinical, subjects are presented in sufficient depth to interest the medical investigator. Complete bibliographics at the end of each chapter make the book an invaluable reference.

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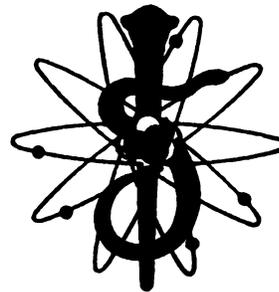
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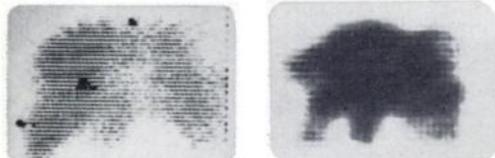
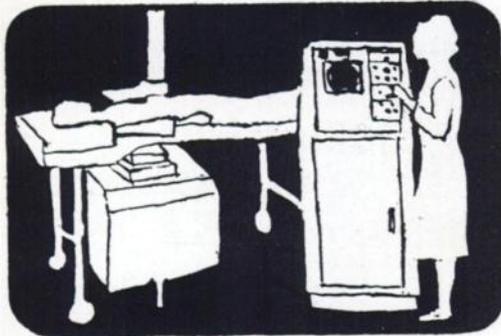
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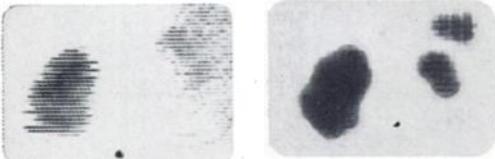


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Conventional Scan Time: 35 min. Autofluorogram Time: 3.2 min.

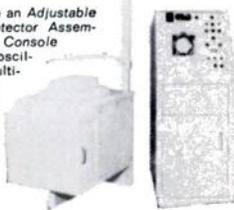
At left is a conventional anterior scan compared with a Model 5000 autofluorogram of an abnormal liver showing a hepatomegaly and an abnormal zone of decreased uptake in the lateral margin of the right lobe, which represents a liver metastasis.



Conventional Scan Time: 20 min. Autofluorogram Time: 4 min.

At left is a conventional posterior renal scan compared with a Model 5000 autofluorogram showing a reduced uptake in the inferior 2/3rds of the right kidney due to the presence of a large hypernephroma in this area.

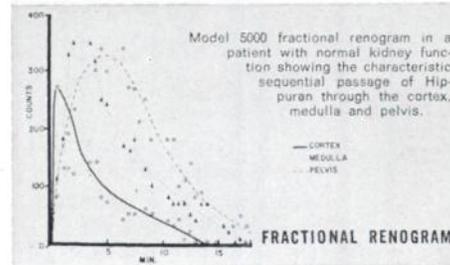
Supplied with each Model 5000 are an Adjustable Hospital Bed, Motor-Driven Detector Assembly, Recording and Control Console which includes cathode ray oscilloscope visual display, multi-channel analyzer circuitry with memory, computer-formatted magnetic tape system, and camera mount.



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Moreover, the MODEL 5000 will also measure rapid changes in the concentration of a radioactive material in compartments within the organ. Of special importance, the instrument allows effective utilization of the full range of isotopes — high energy isotopes can now be used and data can be immediately viewed! Further, the Autofluoroscope periodically displays accumulated data allowing observation of buildup. For continuing historical advantage, the patient's records can be permanently stored on magnetic tape for future reference!

### MODEL 5000 FEATURES:

- CONTRAST ENHANCEMENT OF PICTURE WITHOUT AFFECTING RAW DATA
- DYNAMIC AND STATIC VISUALIZATION OF THE ISOTOPE WITHIN THE BODY
- FULL RANGE OF (INCLUDING HIGH ENERGY) ISOTOPES CAN BE USED AND ACCUMULATED DATA CAN BE IMMEDIATELY VIEWED
- PATIENT'S RECORDS CAN BE PERMANENTLY STORED ON COMPUTER-FORMATTED MAGNETIC TAPE
- CRYSTAL MATRIX AND MULTI-CHANNEL STORAGE OF ACCUMULATED DATA
- PERIODIC DISPLAY OF DATA DURING BUILDUP PROCESS
- AUTOMATICALLY PROVIDES QUANTIFICATION OF DATA

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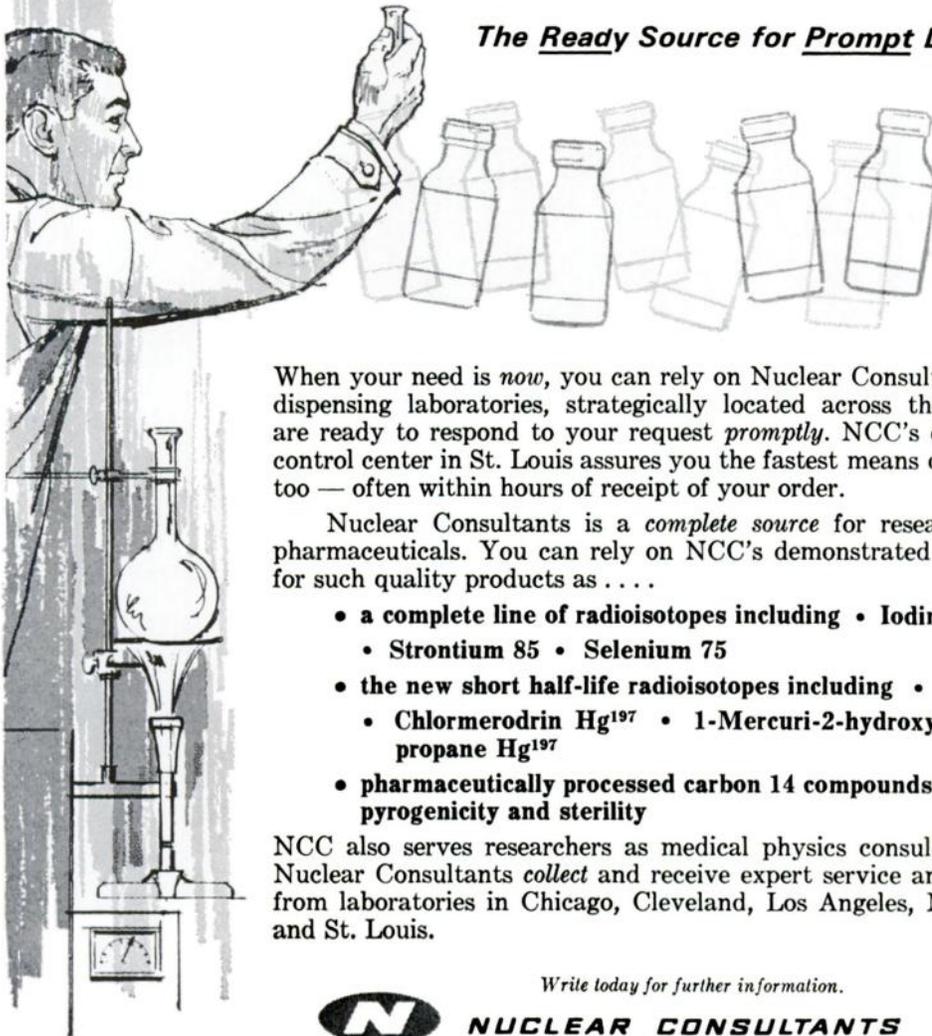


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