



# Hemodynamics

Computerized mass-screening electrocardiography was demonstrated recently in a scientific exhibit at the American Medical Association meeting. Developed by Daniel K. Bloomfield, M.D., and Harry Zieske, Mount Sinai Hospital, Cleveland, the unit uses a simple pick-up consisting of two bowls of saline into each of which a hand is dipped. The electrocardiogram is instantly interpreted as normal or otherwise by the special-purpose computer which analyzes the R and T waves from Lead I. Eighty percent of all abnormal tracings, with few false positives, can be identified, say the investigators.

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A plastic, pocket-size slide rule has been developed by Lexington Instruments corporation, 241 Crescent Street, Waltham, Massachusetts 02154. Utilizing such known information as cardiac output, heart rate and mean arterial pressure, you can very simply and very quickly calculate cardiac index, stroke index, stroke volume and vascular resistance. These cardiac slide rules may be obtained directly from Lexington at \$3.50 each, or \$3.00 if order is accompanied by payment. (Circle No. 8)

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Bio-Medical Electronics, Inc., 653 Lofstrand Lane, Rockville, Maryland 20850, has announced a new EEG Analyzer designed for the Walter Reed Army Institute of Research in Washington, D. C. The EEG Analyzer examines the EEG waveform for frequency components, 0.01 Hz to 30 Hz, and quantizes two parameters according to specific frequency bands (3, 6, 9, 12, 17, 22 or 30 Hz). Two electromechanical counters represent

(a) the total number of times a response exceeded a preset threshold within the specific frequency band selected and (b) a number proportional to the total amount of time and amplitude of the accumulated responses. In addition, a six-digit counter is provided for totalizing all events exceeding the threshold level.

The arbitrary scoring is intended as a quick method of obtaining numerical indices to be used as a comparison of one subject with another. The output of each of the seven frequency band filters may be recorded on the adjacent monitoring channels of a polygraph. (Circle No. 9)

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Canada's Defence Research Chemical, Radiation, and Biological Laboratories has developed an instrument for the rapid and continuous determination of sweating rates. Manufactured by the Canadian Research Institute, 85 Curlew Drive, Don Mills, Ontario, Canada, the instrument, termed the Custance Sudorimeter, finds wide use in physiological and psychological research, monitoring during anesthesia, lie detection, human factors work, and the like.

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The instrument comprises a sensor which is applied to the human subject and measures small humidity changes. The variation of perspiration controls a valve admitting dry air to restore a pre-determined balance. The digital read-out is in linear relationship to the rate of flow of the restoring air. A sensitive panel indicator shows the degree and direction of unbalance so that interesting psychological correlations are possible. Provision is made for externally recording results.

A wide application of this instrument to operating room procedures as a replacement or an extension of oximetry is anticipated. Because the time of response is less than one second, it will provide supporting evidence in forensic lie detection. (Circle No. 10)

## Patient Move to be Near Donor "Unacceptable"

The British Medical Association Council has ruled that it is "ethically unacceptable" to transfer a critically ill prospective donor from one hospital to another just to be close to the potential organ recipient(s). In addition, the council agreed that immunological studies could be carried out during the late stages of disease without the permission of the next of kin but only when the studies would not weaken the physical or mental resistance of the prospective donor.

## It's A Fact

Americans are living longer with increased good health and vigor. This fact, in concert with the increased need for blood, has prompted a joint announcement by the American Association of Blood Banks and the American Red Cross that persons in good health may be blood donors until their 66th birthday. Some six and a half million pints of blood are collected and processed each year for use in surgery and therapy.