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THE MATH ENTERTAINER
By Philip Heafford
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MEDICINE

Multiple Births Foretold

► YOU CAN BE WARNED in advance if twins or quintuplets are expected in your family. A telemetering device perfected by a Yale faculty member can detect heartbeats of unborn babies more accurately and quickly than previously used methods.

Dr. Orvan W. Hess, an internationally known obstetrician and gynecologist who has been on the Yale Medical School faculty for the last 25 years, reported that his transistorized apparatus is easily transportable and "relatively inexpensive."

Dr. Hess made the report at a lecture series in Cleveland, sponsored jointly by the Institute for the Study of Human Reproduction and the Saint Ann Hospital.

A doctor or a nurse could readily set up the transmitter in a patient's room or monitor several patients at the same time by tuning them in on different spots on the shortwave band.

The device was perfected by Dr. Hess in association with Wasil Litvenko, an engi-

neer in the medical electronics laboratory at the Yale University School of Medicine, New Haven, Conn.

Their telemetering system involves placing small electrodes onto the pregnant women, who can walk around while the procedure is underway. The electrodes are little discs about the size of dimes, or in some cases they are like suction cups, held in place by adhesive tape.

Tiny electrical impulses emanating from the baby's beating heart are picked up by the electrodes, carried by wire to transistorized transmitters operating on 33 megacycles and beamed for broadcast to be picked up by any shortwave receiver within a radius of 300 feet.

Not only does the device offer psychological certainty to prospective parents worried about possible multiple births, but the method may eventually detect early changes that lead to damage, Dr. Hess believes.

This would make it possible for physicians to cut down on the number of malformed newborns and estimated 160,000 infant deaths that occur in the United States every year.

Dr. Hess' instrument detects audible heart sounds as early as the 14th to the 15th week of fetal life. The other methods are definitely less sensitive, he said, explaining that the electronic stethoscope cannot pick up "fairly comparable" results until somewhere between the 20th and 22nd week of fetal life.

• Science News Letter, 84:338 Nov. 30, 1963

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