ASTRONOMY

Trace in Heavens of Greatest Stellar Explosion Ever Seen

Remnant of What Was Probably Famous Nova of 1604 Found in Small Fan-Shaped Cloud on Infra-Red Photos

A REMNANT of what was probably one of the brightest "temporary" stars on record—the famous nova observed by Kepler in 1604—has been discovered by Dr. Walter Baade of the Mount Wilson Observatory. The object is very close to the position given by Kepler and resembles a small fan-shaped cloud. It is clearly visible on photographs taken in red light but very faint on the ordinary plates sensitive only to blue light. This probably explains why repeated attempts in the past to locate the star have failed.

The star suddenly blazed out in 1604 and for several weeks was as bright as the planet Jupiter. For nearly two years it was studied by the great astronomer, Kepler, until it faded from sight. Although Kepler left careful records of the star's position and brightness, repeated search centuries later with the most powerful telescopes failed to locate the object.

Kepler's nova is of extraordinary interest in that it was undoubtedly a supernova, a type of nova far brighter than the ordinary temporary stars. It is believed to have been the third supernova to appear in our galactic system in the last 900 years. Before the outburst the supernova may have been just an ordinary star, but afterwards for a brief time it often emits as much light as ten million stars like our own sun.

Science News Letter, February 7, 1942

MEDICINE

Make Electric Recordings of Unborn Baby's Heart

ELECTRIC recordings of the heart beats of an unborn baby can now be made successfully for practical purposes. A technique for this is announced by Dr. Arthur J. Geiger, Dr. Willys M. Monroe, and Dr. Allan V. N. Goodyer, of Yale University School of Medicine, in the proceedings of the Society for Experimental Biology and Medicine. (December)

Doctors have tried for years to obtain electrocardiograms of the unborn baby's heart beats, although these graphic recordings of the electric current produced by the heart muscle contraction have long been used in studying heart disease.

A method of securing reliable records of the fetal heart beat from the sixth month of pregnancy and occasionally earlier has also been reported by Dr. Hubert Mann and Dr. Phineas Bernstein, of New York (*American Heart Journal,* September).

The new technic, the Yale investigators report, enables the doctor to tell promptly whether a woman is about to become a mother or whether she has a tumor. It does not give "false positive" results and takes less time than mouse or other biological tests for pregnancy.

"Will it be twins?" can be answered much earlier than by any other method of examination.

In their work the Yale doctors use a single stage resistance-coupled amplifier with a conventional portable electrocardiograph. The electric current accompanying the unborn baby's heart beats is picked up by disk electrodes placed on the mother's abdomen. They are amplified 20 times, which brings the recording into plain view, and the apparatus is arranged to minimize pickup of the mother's electrocardiogram.

The small 12-pound amplifier of standard radio parts is simple to operate and can be easily carried with the electrocardiograph.

Science News Letter, February 7, 1942

In Florida swamps there are *oysters* that live in trees.

SCIENCE CLUBS OF AMERICA

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NEWS OF CLUBS

SALISBURY MILLS, N. Y.—Model airplanes, astronomy and photography, are chief pursuits of the Science Club at Salisbury Mills School, sponsored by Frederic C. Freer, principal and head of the science department.

Editorial Note: It is recommended that those interested in model airplane building try their hands at the production of true scale models. The U. S. Navy would like to see American model makers standardize constructions on a scale of 1 to 72; that is, one inch in the model should represent six feet on the full-sized craft. Such small models demand delicacy of manipulation but they serve a distinct purpose in that a group of such scale models, all suspended by threads from the ceiling, will give the viewer an excellent comparison of the relative sizes of various airplanes.

Beginning February 9 the Science Page. released to newspapers by Science Service, sponsor of Science Clubs of America. will show full-size drawings of scale models. We recommend that these accurate drawings be used for the solid wood constructions. A set of finished models will be useful to airplane spotters.

NEW YORK, N. Y.—Much interesting experimental work can be performed on the kitchen or dining room table, as Ira J. Laufer, president of the Junior Research Society, and his father have learned. Ira had an idea he could advance the study of living organisms and believed he could find a number of friends who had similar inclinations. Ira's father was kindly disposed toward a plan for forming a club. Canvassing his neighborhood, Ira soon got a group of young fellows of his age together. Now they mess up the tables in Ira's home, but make sure that everything is cleaned up afterward. All this makes father, Irving Laufer, very happy because—you see—he is the sponsor.