

EDUCATION

Typical Teacher Married, Well Qualified for Job

► CONTRARY TO POPULAR opinion, the typical American teacher is not a pretty young girl fresh out of high school.

Most teachers are married. Most are well-qualified for the job. And most are themselves parents of children. More than half of all teachers are women teaching in the elementary grades.

These facts were revealed by a comprehensive survey conducted by the National Education Association.

The typical woman teacher, it was revealed, is older than the typical man teacher—45.5 years against 35.4. The woman teacher is also more experienced in teaching—15.4 years against eight years for the man teacher.

The typical man teacher, however, teaches in high school or in junior high and has 129.1 pupils in his classes. The typical woman teacher is in an elementary grade and has 30.8 pupils in her class. The man teacher's salary is \$4,374 while the woman gets \$3,932.

The typical teacher of both sexes is a college graduate with a bachelor's degree. A higher degree is held by 42% of the men and 18.1% of the women. More teachers have higher degrees than lack any degree.

The typical teacher is also an active member in a church and belongs to at least one or two community organizations. About 85% voted in the most recent election.

Science News Letter, April 13, 1957

RADIO ASTRONOMY

Exploding Star Is Giant Atom Smasher

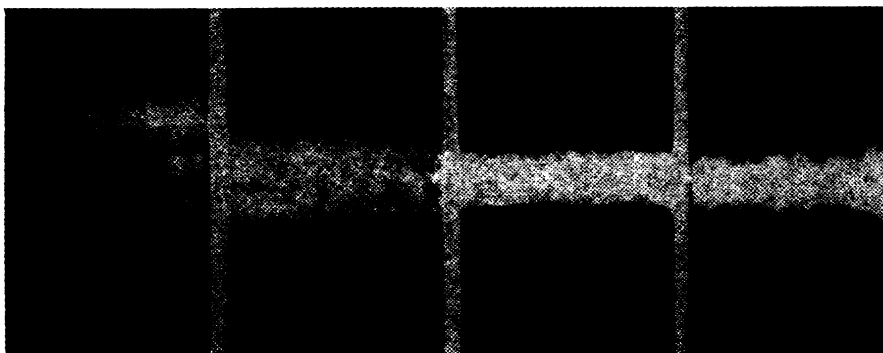
► AN EXPLODING STAR that suddenly became extremely brilliant on July 4, 1054, A.D., is now known to be an atom smasher in the sky so huge it dwarfs the entire solar system.

Debris from this heavenly cataclysm is called the Crab Nebula. It is visible through a telescope as a faintly glowing cloud of gas. Astronomers at Mt. Wilson and Palomar Observatories in California have found that light from this former supernova is nearly 100% polarized.

This indicates a very strong magnetic field and large quantities of very fast-moving electrons. Acceleration of electrons may also be responsible for the radio waves broadcast by the Crab Nebula, Drs. B. F. Burke and M. A. Tuve, director, Carnegie Institution's Department of Terrestrial Magnetism in Washington, suggest.

All sources of radio noise so far identified with visible objects in the sky appear to be composed of highly turbulent and ionized gases, they report to the Smithsonian Institution. Other requirements may exist, they say, which will influence theories of how an agitated gas emits radio waves.

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RUSSIAN'S "PINCH EFFECT"—Successive photographs at intervals of 0.5 microseconds taken from a moving picture of a pulsed discharge in heavy hydrogen. They show the first contraction, or "pinch."

PHYSICS

The AEC's Paper Curtain

Most U. S. research on the possibility of controlling thermonuclear reactions to produce peaceful power is hidden behind the Atomic Energy Commission's secrecy regulations.

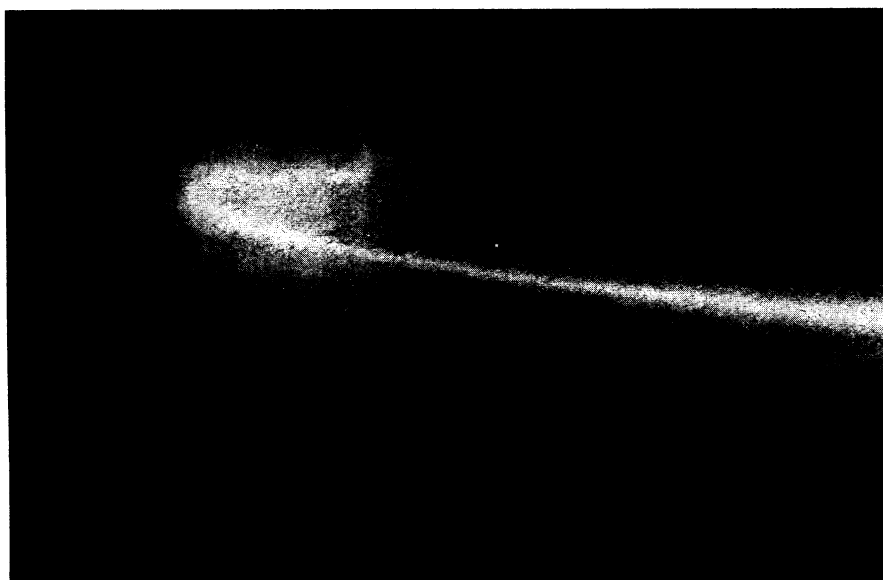
► A PAPER CURTAIN still hides most of the progress being made by the United States in harnessing the fiery heat of hydrogen-bomb reactions for peaceful power.

A slight tear in the curtain occurred when the Atomic Energy Commission announced plans to build a "Model C Stellarator," a large device for research in controlled thermonuclear reactions. However, as an iceberg is seven-eighths hidden under water, so the largest part of present work is hidden behind secrecy regulations.

Judging from the information so far re-

leased, considerable progress is being made in the five laboratories involved in Project Sherwood, the AEC's name for its controlled thermonuclear program. It seems to be only a matter of time, brains and many dollars to wrest power from fusion reactions.

The amount of money devoted to research on harnessed fusion in the current fiscal year ending this June 30 is more than 20 times the amount spent in 1953, Rear Admiral Lewis L. Strauss, AEC chairman, reported. From 20 scientists and engineers studying the problem in 1953, the figure has



EARLY U. S. "PINCH EFFECT"—This photograph shows the "pinch" going around a curve in xenon gas in an early Perhapsatron torus, which is a doughnut-shaped apparatus, the Atomic Energy Commission explains.