ASTRONOMY

Yale Has New 40-Inch Telescope

➤ A NEW 40-INCH telescope is in the final stages of installation at Yale University's Observatory at Bethany, Conn.

The $220,000 instrument is equipped with a control system that allows synchronization of the telescope, the high aluminum dome, the observers' positioning platform and the coude room on the ground floor. A coude focus allows the light gathered by a telescope to be directed into a large fixed laboratory even though the telescope is moving to track a star.

The Yale 40-inch telescope is expected to be in operation by the end of summer, capturing the light from such faint objects as satellites, asteroids and comets.

It will be used primarily to record the measurements, positions and movements of stars, and to determine the brightness of stellar bodies.

The Cassegrainian telescope has a 600-pound mirror made of Pyrex, a low linear expansion glass. Its secondary mirror is 15 inches in diameter.

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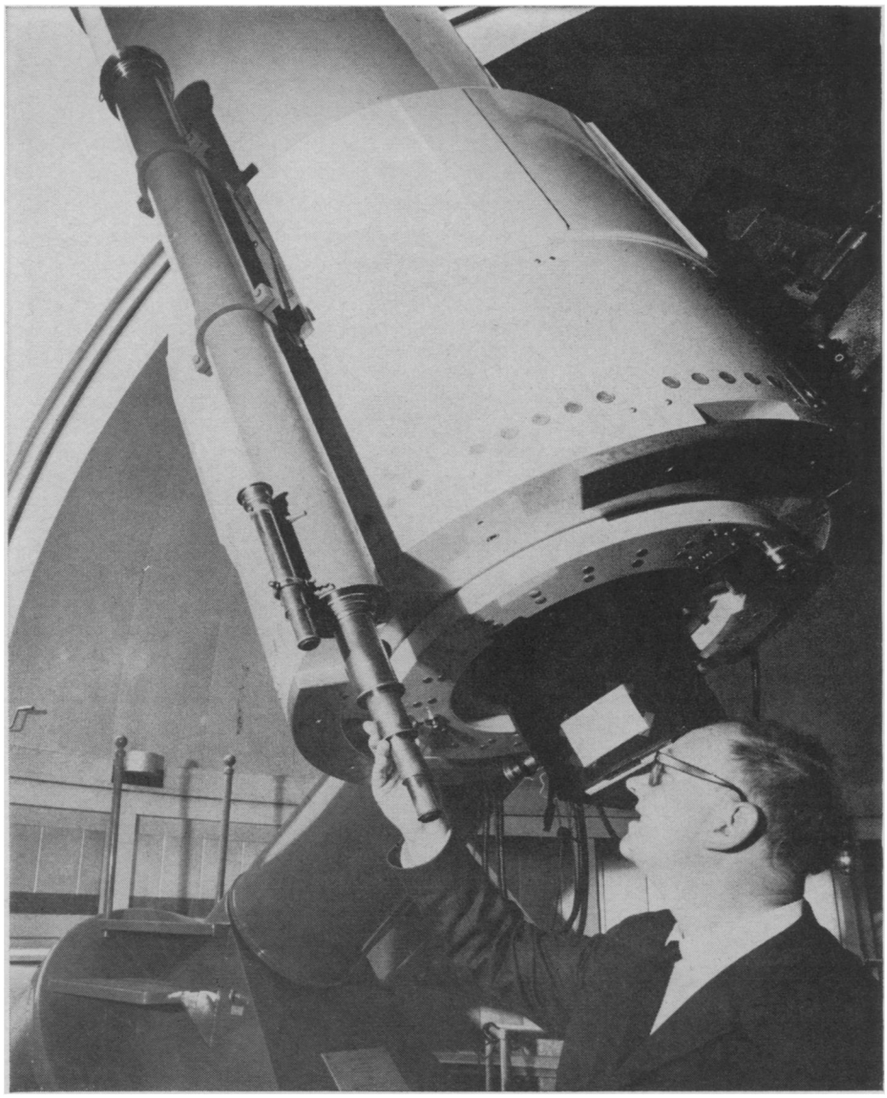

Yale University

CASSEGRAINIAN TELESCOPE—Adriaan J. Wesselink, research associate in astronomy at Yale University, examines the two small telescopes used for visual sighting and focusing of the Cassegrainian telecope being installed at Yale's observatory.

CRIMINOLOGY

National Crime Lab Proposed by Physicist

➤ ESTABLISHMENT of a large, up-to-date crime laboratory, 10 times the size of the current FBI lab, was proposed by Dr. Albert V. Crewe, physicist and director of the University of Chicago's Argonne National Laboratory.

Science has been almost "completely neglected" as an answer to crime, stated Dr. Crewe, despite the fact that technology is now capable of putting teeth into the old saw that "crime doesn't pay."

Dr. Crewe said he has in mind a laboratory equipped with the largest and fastest computers, plus a nuclear reactor for sophisticated chemical analysis. Also important is communications research, particularly in microelectronics.

He said that the laboratory should be staffed with scientists of the highest caliber under the wing of a university.

The overall purpose would be to advance the field of crime detection, rather than to solve particular crimes. But, he said, as detection becomes more certain, it acts as a deterrent to crime.

A murderer hardly ever uses arsenic poisoning, simply because its symptoms are so easily detected, and every criminal knows he should not leave his fingerprints at the scene of the crime.

" . . . Of all the tools, of all the weapons which have been used on the problem of crime, science and technology have been among the most profitable," said Dr. Crewe.

Dr. Crewe called it "incredible" that society should rely so heavily on technology and yet "completely ignore its future."

The main problem has been expense. Few local police departments can afford a nuclear reactor or a computer system. But the nation could. Some jobs of a crime laboratory might be to work out an alarm system for homes, set up a useful computerized fingerprint file, design a counterfeiting-detection device, and improve identification of criminals, using the new science of pattern recognition.

Dr. Crewe made his suggestions at the University of Chicago before a day-long Seminar on Sudden Death sponsored by the American Academy of Forensic Sciences.

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