



Historic Old Telescope Atop U. Hall Now Back In Service

By Dave Mittlestaedt

As a result of two years of work by Matthew J. Cottrell, a graduate student in the department of physics and astronomy, a virtually forgotten but valuable possession of the University has been renovated and is again in use.

Now more than 70 years old, the six-inch refracting telescope installed in 1931 in the observatory dome on the fifth floor of University Hall had deteriorated. Unused for many years, the telescope and dome had sustained considerable damage from vandalism and a leaking roof.

Then in 1976, Dr. William Rush, former associate director of the Ritter Planetarium, showed the telescope to Mr. Cottrell, who is interested in the history of science and especially in antique scientific instruments. He took on the task of renovating the instrument and tracing its history.

The telescope was first installed in 1927 on the roof of the Science Building at the University's former Nebraska Avenue campus, near the site of the present Scott Park campus.

It was a gift of four Toledo businessmen: Thomas A. DeVilbiss, then president of the DeVilbiss Co.; Clement O. Miniger, president of the Electric Auto-Lite Co.; Henry Page, president, treasurer and general manager of the Page Dairy Co.; and William H. Yeasting, president of the former Commercial Savings Bank & Trust Co. They had purchased the instrument from D.W. Williams, a Milan, Mich., schoolteacher.

When the present University Hall was completed in 1931, the telescope was installed in the fifth-floor dome, which was built with materials and time donated by local craftsmen. The room directly below was used as an astronomy laboratory.

From a serial number, Mr. Cottrell was able to determine that the instrument was built sometime between 1899 and 1907 by a firm headed by John Brashear at Allegheny, Pa., now a part of Pittsburgh. Unfortunately, most of the firm's records for the period had been lost or destroyed.

Noted for the high quality of its optical instruments, Brashear's company also

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The six-inch refracting telescope in the observatory dome atop University Hall is back in service after years of neglect. The instrument, built sometime between 1899 and 1907, was overhauled by Matthew J. Cottrell, left, a graduate student in physics and astronomy, who describes the quality of its images as "absolutely outstanding." At right in the picture is Dr. Adolf N. Witt, professor of astronomy and director of the Ritter Observatory.

Telescope Renovated

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built a 30-inch refracting telescope at Pittsburgh's Allegheny Observatory and a 72-inch reflecting telescope at Canada's Dominion Astrophysical Observatory in Victoria, B.C. When the Dominion telescope was completed in 1918, it was the second largest in the world.

The University's instrument was used primarily by John Brandeberry, a former chairman of the mathematics and astronomy department and dean of the College of Engineering, and June Winslow, a mathematics and astronomy professor.

In addition to class work, Mr. Winslow used the telescope to offer monthly public viewing nights. Public viewing night programs also were conducted by W.A. Hiltner and Hugh Kirk, undergraduates in the early 1930s. Mr. Hiltner is now chairman of the department of astronomy at the University of Michigan, and Mr. Kirk is a Toledo patent attorney.

In an early article in the Collegian, the instrument was erroneously described as a "90-inch telescope." The inaccuracy resulted when a reporter measured the focal length (length of the tube) and used this measurement to describe it.

In renovating the instrument, Mr. Cottrell tried to make as few changes as possible, using almost all of the original parts. The only major change was the installation of a modern electric clock-drive which allows the telescope to follow the earth's rotation, keeping a certain area of the sky in view.

Originally, the instrument was equipped with a spring-driven, hand-wound clock, which was replaced with an electric clock sometime in the 1930s. The original drive has disappeared, but Mr. Cottrell said he is keeping the second drive with the telescope as a part of its history. The

modifications he made to the instrument were minor, so the old drive could be reinstalled very easily.

The telescope was painted many times over the years and paint had dripped into the bearings. Thus, the instrument had to be completely disassembled, cleaned and polished. The telescope and bearings are brass, and the mounting is cast iron. Mr. Cottrell said that when he cleaned the telescope, he found that six or seven coats of paint had been applied.

He did all the work himself, except for a part machined by Guenther Buening, shop superintendent in the department of physics and astronomy.

Mr. Cottrell said he thinks the telescope is "irreplaceable."

"To replace it with a modern telescope would probably cost between one and two thousand dollars, but a new instrument wouldn't have its historic or nostalgic value. The University is very fortunate to have an instrument like this," he says. He describes the quality of the images through the telescope as "absolutely outstanding."

He points out that, unlike the instrument in Ritter Observatory, the telescope on University Hall is designed for visual observation since the lenses have been color-corrected for the human eye.

Incidentally, he says, the mirror for the Ritter telescope was ground by the J.W. Feckler Co., a successor to Brashear's firm. The mirror was ground on a blank of Cer-Vit material developed and produced by Owens-Illinois, Inc.

Mr. Cottrell currently is working on a paper on the history of the old telescope for the UT archives. He says he could still use more information, and would appreciate any additional data about the instrument that anyone may have.