

THE BUHL PLANETARIUM

THE Buhl Foundation, in presenting to the city of Pittsburgh a Planetarium as their memorial to the late Henry Buhl Jr., has made a magnificent addition to the beautiful sights of our city. The Pittsburgh merchant whose will created The Buhl Foundation in 1928 was for a long time a citizen of the North Side, where the Planetarium has been built. As the fifth of this type of scientific hall to be constructed in the United States—others have been erected in Chicago, New York, Philadelphia, and Los Angeles—the Buhl Planetarium combines the best and newest features, both mechanical and architectural, of all the others and has the added advantage of an Institute of Popular Science—one of the very few such institutes in the world.

No longer will the dwellers in our city streets be unable to see the firmament, for its treasures will be arrayed in all their glory in the Planetarium; and although the Carl Zeiss projector is a complicated and astounding scientific instrument, its mission is essentially to popularize and make fascinating the

field of astronomy, illustrating amazingly the apparent movements of the sun, moon, stars, and planets across our sky. The Institute of Popular Science, also, will demonstrate in understandable fashion the progress of science in many other specific fields. Operating models—exhibits that move and talk and explain themselves—such as those used in the Deutsches Museum in Munich and in the Franklin Institute in Philadelphia, have been included in the Institute.

A giant stereopticon—or to use an old-fashioned term, a magic lantern—is what makes the stars come out in the sky theater. But the giant at the Buhl Planetarium is an unbelievably complex and versatile projector with 106 lenses that can reproduce the heavens on the inside of a great stainless steel dome as they actually appear from any point on the surface of the globe—there are no geographical limitations on its flexibility—at any given time in the past or future. The machinery of the instrument is so perfect that the commentator can press a button and make history—

astronomical history—turn back to, for instance, midnight of January 1, B.C. 2,000. And on the sky of the Planetarium projector, every star and every planet will be in its exactly correct position.

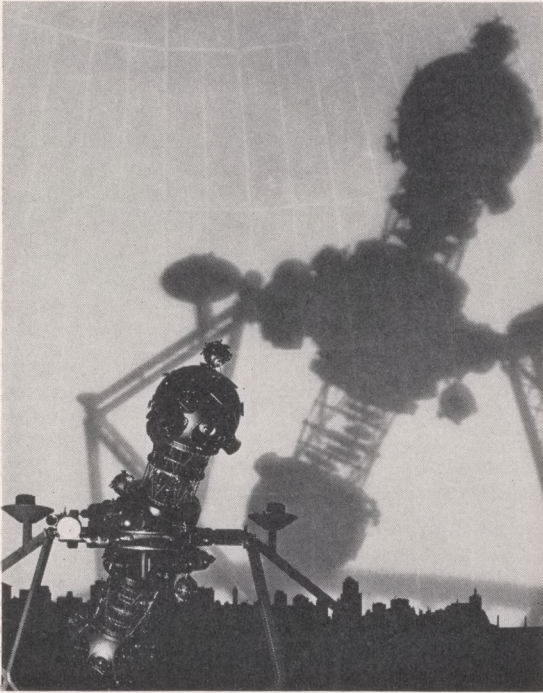
This projector can also speed up celestial time to send the universe wheeling through a year's cycle in a few minutes; it can bring evening, midnight, and dawn; and it can demonstrate eclipses of the sun and moon, shooting stars, and Halley's Comet, all at the will of the lecturer who regulates its operation from the speaker's panel control. Nine thousand of the fixed stars, every known constellation, the Milky Way, the nebulae, star clusters, the variable stars, are there. And all this is so convincingly done in a "theater of the stars" that for the period of the demonstration the audience captures the illusion of being "out under the starry skies," looking into the vast and illimitable reaches of the

universe, farther than eye could see.

Complex as it sounds, the instrument is relatively simple for an experienced operator. He has before him a keyboard of electric switches and he plays them just as an organist plays on his keys. And, like an organ, the switchboard of the Planetarium projector offers an infinite number of combinations in so simple a manner that the audience will just sit back in their chairs, and find themselves believing—because the sky looks so real—that they are out on top of one of our own Pennsylvania mountains on a clear starry night, with the splendor and majesty of the heavens spread out before them.

In addition to the Planetarium productions in the "theater of a thousand shows," the new institution will offer a lecture hall fully equipped for scientific demonstrations of many sorts and for the presentation of the finest in scientific and educational motion pictures. There are also five galleries to be

devoted to scientific exhibits, free to the public at all hours that the institution is open. In these galleries, exhibits will tell the story of physics, of chemistry, of astronomy, and, from time to time, of other sciences. At the present time the octagonal gallery, directly beneath the sky theater, is devoted to the exhibition of a group of interesting machines that demonstrate safe driving and test automobile operating skill by accurate measurement—under simulated road conditions. The Mezzanine Lounge, the Club Room, the headquarters and workshops for amateur astronomers—where expert scientists and teachers will instruct those who wish to know more of this ancient science—are among the other points of interest included in this new and welcome gift to the city of Pittsburgh.



THE GIANT PLANETARIUM PROJECTOR