



NATURAL

Nature built the scenery for the stage of Denver's new mountain amphitheater in the Rocky Mountains, as shown in this photograph by Harry M. Rhoads.

company Ma-lc, has labored for four years at the theater, under direction of National Park Service officials—Edward Teyssier, supervisor of all Denver Mountain Park projects, and Albert C. Dice, in direct charge of the theater.

It was an immense job. Between 40,000 and 50,000 cubic yards of dirt had to be moved; the whole structure

is of reinforced concrete or natural stone. Colorado evergreens are planted in stone boxes on the side; there are elaborate dressing and preparation rooms, an elaborate lighting system.

"If there are people here 3,000 years from now, the theater will be here for them to enjoy," said a national park official.

Science News Letter, July 5, 1941

ASTRONOMY

New Van Gent Comet Won't Be Seen With Naked Eye

Will Be Brightest in Early September When It Can Be Seen With Small Telescope Moving Toward Dipper

HOPES that the new Van Gent Comet (*See SNL*, June 21), which is moving into the northern sky after its discovery by an astronomer in South Africa (not in Java, as first reported), will become visible to the naked eye are not to be realized.

This is shown by a calculation of the comet's path made by L. E. Cunning-

ham, of the Harvard College Observatory who discovered Cunningham's comet which did reach naked eye visibility last winter.

Dr. F. J. Bobone, of the Argentine National Observatory, calculated the comet's path in space. These data, transmitted to the Harvard College Observatory, clearing house for such astro-

nomical news, were released by Dr. Harlow Shapley, director of the Harvard Observatory.

Dr. Bobone's orbit brings the comet closest to the sun on Sept. 3, when it will be about 89% as far from that body as the earth's distance, 93,000,000 miles. Seen from the sun, at that time, it would be in our northern constellation of Draco, the dragon. However, from earth we will see it in a different direction.

When discovered, the comet had a short tail, and was of the eleventh magnitude, far below the fifth magnitude, the minimum for naked eye visibility. On June 16, according to Mark Howarth, New South Wales astronomer who radioed to Harvard, it had increased to the tenth magnitude.

Mr. Cunningham's figures, based on the data computed by Dr. Bobone, reveal that in mid-July the comet will pass just below the bright star Arcturus, visible in the southwest in the evening in the constellation of Bootes. Then it will move towards the figure of the Great Bear, and in October will be a short distance below the bowl of the Big Dipper.

At the present time it is approaching the sun, which increases its real brilliance, but it is moving away from the earth, which partly counteracts the rise in brightness. On July 1 it will be about two-thirds of the sun's distance from us, or 60,000,000 miles. It will be about 130,000,000 miles distant on Sept. 3, when closest the sun. After that, it will get closer until Dec. 8, when it will be 74,000,000 miles away, but by that time it will be well outward bound from the sun.

In early September it will appear brightest, Mr. Cunningham finds, when it will reach magnitude 7.5, not enough to be seen with the naked eye, but visible through small telescopes if one knows just where to look.

Astronomers at the Yerkes Observatory, Williams Bay, Wis., and the U. S. Naval Observatory in Washington have observed Van Gent's comet. Dr. George Van Biesbroeck, at Yerkes, picked it up on June 18.

Using the 26-inch refracting telescope at the Naval Observatory, U. S. Lyons found it on the night of June 19 in the constellation of Libra, the scales, which is visible in the south about midnight. A photographic record of the comet was also secured by G. M. Raynsford, with the 10-inch star camera.

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Plastic fly screens are being tried out, and are said to resist corrosion.