

their beaks, but more often they swallow them whole and later regurgitate them. They may let them lie around in the nest for a while, but after their own young are hatched the alien eggs are broken open and eaten.

California gulls range far inland; Dr. Twomey has observed their habits in Idaho, where he saw them attack and kill the young of wild geese, carrying

them off to feed to their own nestlings. Gophers, ground squirrels and other small animals met the same fate.

Dr. Twomey cautions against regarding California gulls as "vermin" and subjecting them to persecution because of these predatory habits. They destroy immense numbers of destructive insects, he points out, and have long been known as voracious devourers of mice.

*Science News Letter, June 19, 1948*

## NUCLEAR PHYSICS

## New Powerful Accelerator

Expected to be largest and most powerful laboratory research tool of its type in the world. Will take two years to complete and cost \$2,000,000.

► THE most powerful electrostatic accelerator known in the world will be constructed beside a cliff on a mesa in New Mexico at the Los Alamos Scientific Laboratory of the University of California, the U. S. Atomic Energy Commission has announced.

This new Van de Graaff-type generator will yield positive ions with energies up to 12,000,000 electron volts. The energy will be far less than the billion-electron-volt level proposed for new cyclotron-type "atom smashers," but the electrostatic generator has many advantages for certain types of atomic research.

Flexible, high precision energy control to one-tenth of one percent will be possible with the new machine. Scientists can change from one type of ion to another with continuously variable energies from 2,000,000 to 12,000,000 electron volts. Neutron beams between 30,000 and 30,000,000 electron volts will also be available.

Using the new accelerator, it will be possible to study the properties of both light and complex nuclei below 20,000,000 electron volts. Precise data are needed in this range which cannot be obtained

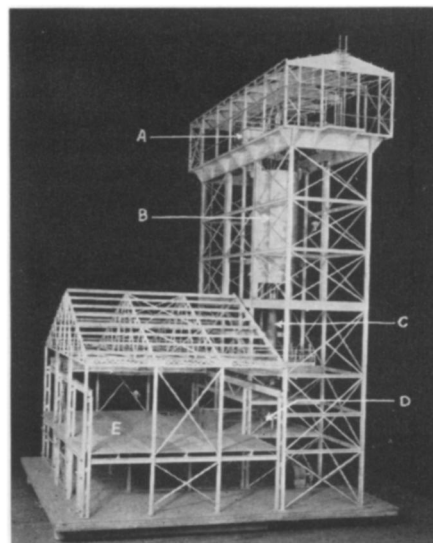
with other atom smashers.

The Van de Graaff generator is named for Dr. R. J. Van de Graaff of the Massachusetts Institute of Technology, the scientist who first used a belt to convey charge to high electrostatic potentials. The new machine planned for Los Alamos will be a pressurized Van de Graaff on which pioneering work was done by Prof. R. G. Herb of the University of Wisconsin.

The cliff-side structure will be 120 feet high with a control room and laboratory space housed on the top of the mesa. The generator will be 13.5 feet in diameter and 39 feet high. Total cost of the new generator and buildings will be \$2,000,000 and two years will be required for completion.

The electric charge is carried from the bottom to the top by a cotton belt 30 inches wide. By spraying the belt with a charge at the base, a great potential difference can be built up between the upper electrode and the ground. This potential difference is used to accelerate charged particles down two evacuated tubes in the column.

*Science News Letter, June 19, 1948*



**ACCELERATOR MODEL**—Important parts of the proposed 12,000,000 electron volt electrostatic accelerator are: (a) heavy crane (b) pressure shell enclosing generator (c) inner insulating column enclosing accelerating tubes (d) 90 degree reflecting magnet and (e) target rooms.

of his discovery being forwarded by Dr. L. Volta, director of the Royal University Observatory, Turin, Italy. Astronomers in this country were notified of the comet's discovery and position by Harvard Observatory, clearing house for such information in the western hemisphere.

Prof. J. J. Nassau, director of the Warner and Swasey Observatory, the Case Institute of Technology, at East Cleveland, took the picture on the cover of this week's SCIENCE NEWS LETTER with the 24-36 inch Schmidt-type telescope-camera at the observatory on June 6 at 4:15 a.m., EDT. Exposure time was four minutes. It shows the comet's tail extending for 2.5 degrees across the heavens. The comet was moving rapidly northwest.

Star-lovers watched the comet as it moved across the heavens, going from the constellation of Perseus into the constellation of Andromeda and on into Perseus again. At first visible just before dawn, as it moved away from the sun the comet could be seen in the early morning hours.

Comet Honda-Bernasconi soon began to fade in brightness, having dropped to fifth magnitude within a week of its discovery.

*Science News Letter, June 19, 1948*

## ASTRONOMY

## Spot Bright New Comet

See Front Cover

► A BRIGHT new comet flashed across the heavens early this month. Of the fourth magnitude when first seen, it was easily picked up with binoculars, and could also be spotted with the naked eye by people far from city lights.

The comet was discovered by watchful

observers both in Japan and Italy. Minoru Honda of Japan's Kurashiki Observatory spotted it on June 2. This is the second comet Mr. Honda has discovered within one year, as he spotted a ninth magnitude one last November.

The comet was independently found on June 4 by Giovanni Bernasconi, word