

ASTRONOMY

Many Eclipsing Stars

A total of 42 eclipsing stars beyond our own galaxy have been spotted. They are among the brightest two-star systems ever found in the universe.

► DOZENS OF eclipsing stars so bright we here on earth can see them even though they are beyond our own Milky Way galaxy of stars, and some 500 million billion miles away, have been detected in the southern skies.

A total of 42 eclipsing stars have been spotted in the Small and Large Clouds of Magellan, the closest galaxies to our own, Mrs. Virginia McKibben Nail of Harvard College Observatory reported to members of the American Astronomical Society and the Astronomical Society of the Pacific meeting in Victoria, B. C. Except for these, only two stars beyond our own galaxy are known to be double stars that periodically eclipse each other.

"These stars are among the brightest two star systems ever to be found in the universe," Mrs. Nail stated. "Eclipsing stars brighter than these may never be found."

The newly-discovered eclipsing stars are each about 600 times as bright as our sun. Although on photographic plates they show up as about the 15th magnitude, if they were as close as Sirius, the brightest star in the sky, they would outshine it and all other stars in our heavens.

The stars in these two-star teams usually take two or three days to swing around each other. Some, however, take as little as a

day while one team requires over two months to complete its circuit.

Although the individual stars in the pairs have never been seen, Mrs. Nail estimates that the stars of each pair are about the same size. Many are quite elliptical in shape rather than being as nearly round as our sun or earth or moon. Most of them are blue in color.

The orbits of most of the doubles are so oriented that the most distant member is never completely hidden. The eclipse is only partial and the change in brightness is not very great.

The groups of hundreds of millions of stars that make up the Large and Small Magellanic Clouds are so far south that they are never seen from the United States. To the unaided eye they look like detached portions of the Milky Way. To study the change of light for each pair, Mrs. Nail used photographs made throughout the past ten years at Harvard's station in the Orange Free State, South Africa.

At first these eclipsing stars were believed to be members of our own Milky Way galaxy, seen against a background of Magellanic cloud stars. But further analysis proved them to belong to these more distant galaxies and to be uniformly distributed throughout them.

Science News Letter, July 5, 1952

VETERINARY MEDICINE

National Anti-Rabies Effort

► A NATIONAL program to control and eventually wipe out rabies from this country was called for, as the so-called dog days and, according to the old notion, mad dog season approaches.

The United States has more rabies than probably any other country in the world, Dr. H. W. Schoening of the U. S. Bureau of Animal Industry declared at the meeting of the American Veterinary Medical Association in Atlantic City, N. J.

"The time is now past due for a national program of control and eventual eradication," he said.

"This envisages the U. S. Public Health Service, the U. S. Fish and Wildlife Service, the U. S. Bureau of Animal Industry, the State Livestock Sanitary Service, the practicing veterinarians, physicians and the public at large working together," he said.

Evidence that such a program would

work came from a report by Dr. Robert McClelland, Buffalo, N. Y., veterinarian, of how a coordinated control program checked rabies in that city when a severe outbreak flared up after World War II.

"The county rabies committee sparked local bodies into action," he said. "Health departments, police and sheriff's departments, dog clubs, civic clubs and veterinarians joined in the effort. Public response to such a careful educational program was amazing.

"Within a year, the incidence of rabies was reduced to zero."

As a member of an anti-rabies team, Dr. McClelland said, the practicing veterinarian has three duties to perform:

1. Careful clinical diagnosis.
2. Protection of his patients through immunization.
3. Education of his clients with emphasis on the control of hysteria.

Science News Letter, July 5, 1952

● RADIO

Saturday, July 12, 1952, 3:15-3:30 p.m. EDT
"Adventures in Science," with Watson Davis, director of Science Service, over Columbia Broadcasting System.

Dr. Harry J. Prebluda, biochemist of the U. S. Industrial Chemicals Company, discusses "Chemical Aids to Growth."

ENGINEERING

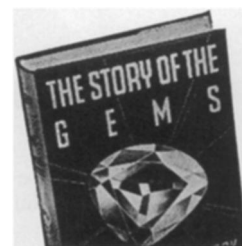
Midwest Oil Pipe-line Operated From New York

► A MIDWEST oil pipe-line has been operated by remote control from New York City for almost two years, A. J. Hornfeck and G. R. Markow of the Bailey Meter Co., Cleveland, Ohio, reported to the American Institute of Electrical Engineers in Minneapolis, Minn.

Through remote metering and teletype facilities, the New York operator has a complete picture of, and full control over, the eight-inch pipe-line which connects the Wood River Refinery of the Shell Oil Co., in southwestern Illinois, to Columbus, Ohio, several hundred miles away.

Four automatic pumping stations give the refinery products an extra boost as they speed toward Cleveland. In an emergency, the New York operator can sound a siren in each of the pumping stations to alert the local operator on duty to the emergency condition.

Science News Letter, July 5, 1952



STORY of the GEMS

By HERBERT P. WHITLOCK
Curator of Minerals and Gems
American Museum of Natural History

"The best popular book on gems we have seen . . . Combines in happy fashion the complete mineralogical background of precious and semi-precious stones with enough of the fascinating history of gems to make the book much more than a manual of cuttable stones . . . Very fine illustrations of cut gems, some in color, and of carved jade and other precious stones. An excellent book for the small library since it covers accurately a wide field."—*Saturday Review of Literature*

Large handsome format

PROFUSELY ILLUSTRATED
\$4.00 postfree

5-Day Money-Back Guarantee

EMERSON BOOKS, Inc.

Dept. 195-H, 251 W. 19th St., N. Y. 11