ASTRONOMY

Spot 1952's Second Comet

➤ THE SECOND comet of 1952, a periodic wanderer that returns about every five years, has been spotted.

Known as the Grigg-Skjellerup Comet, the object, in mid-April, was located in Aquarius, the water carrier. Much too faint to be seen without a good-sized telescope, it is moving away from the earth and will continue to grow fainter.

The comet was spotted on March 25 by J. A. Bruwer of the Union Observatory, Johannesburg, South Africa. News of the find was cabled to Harvard Observatory, clearing house for astronomical information in the western hemisphere in Cambridge, Mass., by Mlle. J. M. Vinter-Hansen of Copenhagen.

The history of this comet well illustrates how international the skies are. It was first located by a New Zealand astronomer named Grigg in 1902, then was lost until May 6, 1922, when J. F. Skjellerup, a Finnish astronomer, found it again, so that now both names are attached to it.

On its next return, it was located first by Dr. E. Delporte of the Belgian Royal Observatory. In 1932, it was spotted by Dr. George Van Biesbroeck of the Yerkes Observatory, Williams Bay, Wis. Other countries entering the comet's history have included Sweden, Denmark, Japan and England.

Comets are spotted on photographic plates by comparing two photographs made some hours apart so that the motion of the comet shows up. Stars move also, but they are so distant that years are required before their motion becomes evident. After three separate observations of a comet are obtained, its exact path can be calculated.

For a regularly returning comet, astronomers calculate ahead of its arrival where it is expected to be. Comet Grigg-Skjellerup was at the right place about on schedule, its predicted position on April 8 being right ascension 21 hours 10 minutes and declination south four degrees. When spotted on March 25, its position was right ascension 20 hours 30 minutes and declination south 12 degrees.

Science News Letter, April 19, 1952

PSYCHOLOGY

Rate Big League Players

➤ GUS ZERNIAL of the Philadelphia Athletics would be considered the American League's leading swatter in spite of his .268 batting average. He would, that is, if formulas for evaluating baseball players developed by Robert B. Reynolds of the University of Iowa, Iowa City, were adopted by club officials.

Monte Irvin would head the batters of the National League.

Mr. Reynolds bases his formulas on a statistical study of just what kinds of player performance contribute most to a club's standing. He calculated how closely each of the indexes of performance was related to clug standing over a period of six years in both leagues.

Runs batted in, he found, do a lot more toward putting a club in the first division than do the number of hits per time at bat. The best measure of pitching performance he found to be the earned run average, that is, the number of earned runs (of the opposing team) mutiplied by nine and divided by the number of innings pitched. By this measure, the National League would be led by rookie player of the Boston Braves, Chet Nichols, while Saul Rogovin of the Chicago White Sox would rate as best pitcher of the American League. The earned run average, the statistics showed, is a much better index to the value of a pitcher than games won or lost.

The contention of baseball men that good pitchers are the most important asset of a club was refuted by Mr. Reynolds' statistics. Batting and pitching carry about the same weight in determining club standing. Fielding and stolen bases, on the other hand, contribute little or nothing.

Mr. Reynolds, who is a graduate assistant in social sciences at the State University of Iowa, has an amateur interest in baseball. The formulas he has worked out will aid club officials, he believes, in deciding whether to draft or purchase likely prospects, whether to trade off players and what to do about holdouts. They cannot be used blindly, however, he warns. They serve to supplement expert opinion, not replace it.

Science News Letter, April 19, 1952

VETERINARY MEDICINE

New Disease, "Soremuzzle," Attacks Sheep in Texas

➤ SHEEP IN west Texas are being attacked by a new disease called "soremuzzle." The death rate ranges from 10% to 30%, the American Veterinary Medical Association reports in Chicago.

Cause of the disease, which the association calls "baffling," is not known. Typical symptoms are rapid weight loss, inflammation of the muzzle, and tendency to lameness, depression and scouring. The disease is not the same as the condition called soremouth, although the two look alike. Soremouth, also called contagious ecthyma, can be prevented by vaccination, but no method of preventing soremuzzle has yet been found. No outbreaks of soremuzzle have been reported outside of west Texas. Some authorities say it is very like a disease called blue tongue which attacks sheep in South Africa.

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MEDICINE

Spleen Extract Readied To Save Atomic Victims

➤ ATOMIC BOMB victims of the future stand a good chance of being saved from lethal radiation effects with a blood-forming substance extracted from the spleens or other blood-forming parts of animals.

Good progress toward refining that substance from animal spleen has been made at the University of Chicago's Goldblatt Memorial Hospital by Dr. Leon O. Jacobson, professor of medicine. He will also be associate director of the Argonne Memorial Hospital when it opens in September.

Dr. Jacobson found that if he extracted the spleen from a mouse, kept it still functioning and attached to the body and shielded it, the mouse could take more than double the amount of the usual lethal dose of radiation and still live. Radiation—either from an A-bomb or from X-ray machines used in treatment of cancer—destroys the blood-forming properties of the body.

Dr. Jacobson proved that it was the blood-forming properties of the spleen which, protected by shielding from radiation, immediately began producing new blood in the mice. He ground up spleens and then injected them into mice that had been radiated with more than the usual lethal dose. Blood immediately began being produced.

The substance in the spleen or other blood-forming tissues which produces blood must be refined out, Dr. Jacobson said, before it can be used on humans, because other parts of the spleen can produce dangerous reactions in the patient.

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