

ASTRONOMY

Unpredicted Meteor Shower Surprises Astronomers

Brief, Brilliant Display, Destined to Fame, Apparently Caused by Minor Planet Now Visiting Neighborhood of Sun

A GREAT unpredicted meteor shower, seen from Europe on Monday night, Oct. 9, has been identified with a minor periodic comet that otherwise made no stir in the astronomical world.

European astronomers saw the display of "shooting stars" and immediately cabled the news to Harvard Observatory which is this continent's central station for astronomical telegrams.

The shower will probably go down in history as one of the major meteoric displays of history. A hundred "shooting stars" a minute were reported from the Soviet observatory at Poudkovo, near Leningrad. This indicates that the display surpassed in brilliance the showers of 1833 and 1866. The shower was short-lived, lasting only a few hours, and its maximum came at 20 hours Greenwich time or 3 p. m. Eastern Standard Time when it was still bright daylight in the United States.

Dr. W. J. Fisher, Harvard astronomer, checking possible causes of the shower, found that the Giacobini-Zinner comet, a periodic visitor to the sun's neighborhood, was in such a position as to be associated with it. Meteors have been seen but sparsely only a few times in the past in association with this comet. The theory is that the meteors are stray fragments of the comet that plunge into the upper atmosphere of the earth and burn with brilliance that gives the popular name "shooting star."

370,000 Miles From Orbit

The earth was rushing through space only 370,000 miles away from the orbit of the Giacobini-Zinner comet on Oct. 9, Prof. George Van Biesbroeck of the Yerkes Observatory computed. The comet itself passed this part of its orbit on July 21. Although the earth came within only $1\frac{1}{2}$ times the distance of the moon from the orbit, the comet itself is now hardly observable, being distant from the earth $11\frac{1}{2}$ times the average distance from the earth to the sun.

The Giacobini-Zinner comet was seen

this year in April from Hamburg Observatory on its regular visit to this part of the solar system. It was very faint; within sight of only large telescopes. It was discovered in 1900, rediscovered in 1913 and observed again in 1926.

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AVIATION

New Parachute Device Adopted by Navy

THERE IS NOW no excuse for a naval aviator to fly without a parachute. Heretofore, some flying personnel were exempted from wearing parachutes when they prevented efficient performance of duties in cramped quarters. A quick-attachable type of parachute has been developed, only the harness of which is worn except in emergency. The packed parachute is stowed close at hand and an almost instantaneous connection to the harness can be made.

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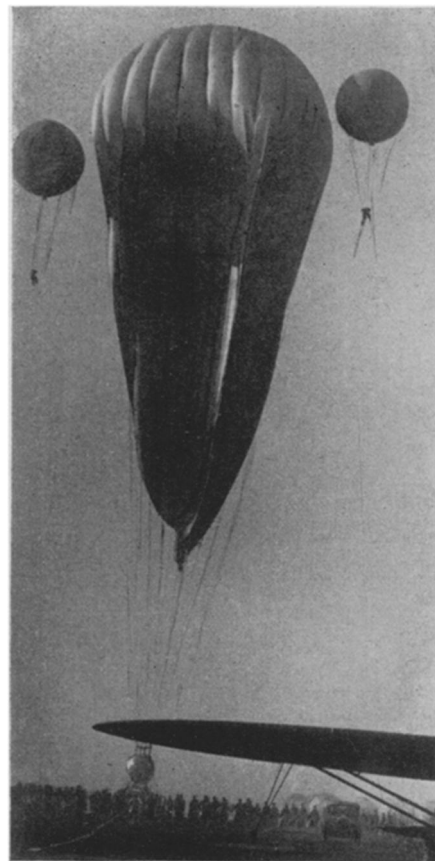
MEDICINE

Radium "Seeds" Planted to Fight Cancer at Close Quarters

MOST important of the new advances in surgery is the application of radium directly to the internal organs for the treatment of cancer, in the opinion of Dr. H. Beckwith Whitehouse of Birmingham, England.

This English surgeon, a member of the Radium Commission of Great Britain, addressed the American College of Surgeons in Chicago recently on pre-cancerous conditions of the breast. The campaign against cancer will be most effective when directed against such pre-cancerous conditions, he said.

Dr. Whitehouse described what he called the surgery of access of radium



READY TO RISE

Silhouetted against Moscow's gray Sept. 30 dawn, the big gas bag USSR is shown, in one of the first pictures of its record flight to reach this country. It is being given a final inspection by men suspended from little balloons. (SNL, Oct. 14, '33, p. 245)

as follows: A rubber tube containing radium needles which are like little beads is stitched directly to the cancerous organ within the body. The tube is about the size and shape of a small quill. Its length varies according to how deep into the body it must penetrate to reach the cancer. After a week the stitches will be absorbed by the body tissues and the tube may be pulled out and its hole allowed to heal.

"We shall hear a good deal more about radium treatment," Dr. Whitehouse predicted, but he warned that this potent substance, like X-rays, is dangerous when used by the unskilled.

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