

PHYSICS

Tracks of Cosmic Rays Seen by Experimenters

THE COSMIC RAYS, piercing radiations from the distant heavens, have been seen. At least, the straight paths along which they travel were made visible in experiments reported to the American Physical Society at Minneapolis by Dr. L. M. Mott-Smith and G. L. Locher of the Rice Institute, Texas.

Bullet-like corpuscles must form the problematical cosmic rays, conclude

these investigators, from their observations of these thin straight tracks of rapidly moving particles.

The famous Wilson cloud expansion chamber, which has been used to spy even on colliding atoms, was used by Dr. Mott-Smith and Mr. Locher in these experiments to make visible the paths of the rays. In a strong light they appear as trains of water droplets.

Simultaneously with the formation of each bullet-track a signal was observed in an electroscopic instrument known as a Geiger-Müller counter, used to detect the arrival of these

messengers from the depths of space.

Only a fast material particle like an electron could score such double hits, says the experimenters. They are "non-material" waves like the gamma rays from radium, however, in the opinion of Dr. R. A. Millikan, leading American investigator of the cosmic rays.

Supporters of the wave theory of the rays believe that their particle-like behavior is not due to the direct action of the rays but to secondary electrons driven out of air atoms encountered by the rays.

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