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## Obituary

Sarah Goforth

American astronomer Fred Whipple, known to friends as Dr. Comet, died in August at the age of 97. Whipple is best known for positing in 1950 that comets are not loose clouds of dust and particles, as was widely believed, but hunks of ice embedded with rocky debris. The so-called dirty-snowball theory remained controversial until 1986, when a European spacecraft photographed the icy core of Halley's comet and vindicated Whipple.

During stints at Harvard University and the Smithsonian Astrophysical Observatory, Whipple discovered six comets, all of which bear his name. He also invented the "Whipple shield," a metal skin that protects spacecraft from collisions with rocks and particles by vaporizing them on contact. His work wasn't confined solely to comets, however. During World War II, he crafted a tool that dropped shredded tinfoil from Allied aircraft to confuse enemy radar.

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