

Sky and TELESCOPE



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Whipple's Comet



ites, which probably arrive somewhere on the planet every day, escaped the eye of science completely until the beginning of the 19th century. It may very well be that there are many different varieties of matter which owe their presence on our planet to the same force as that which gives us tektites, but which are, as yet, unrecognized. Any field man experienced in either geology or meteoritics well knows that there are a multitude of puzzling rock specimens whose presence cannot clearly be accounted for.

But there is another approach. The protracted, abundant blasting of the moon's surface which I have endeavored to depict in my recent paper, "Meteorites and the Moon," long ages ago reduced that surface to a deep mantle of fragments. Each new arrival sinks far into this mantle, where its enormous kinetic energy melts the meteorite itself and a portion of the fragmental lunite, allowing the heavier constituents to sink to a lower level, leaving the lighter materials at the surface of the melt. Thus, through millions of years, the lunar mantle has undergone a smelting process. Each cubic foot or meter of its surface layer has been melted a thousand times until only the lighter materials—mainly silica—are left at the surface, with, of course, a certain admixture of the meteoritic substances. The fact that nickel has been found in a few tektites would seem to bear out this idea. And it is by no means impossible that some rare forms of "meteorites" are in reality tektites.

It would be unwise to try to predict what may finally be the ramifications of this study of tektites when once it gets under way. At present, the majority of scientists are awaiting an introduction to the stranger. And it is amazing how the tempo of progress is stepped up when multitudes begin to contribute bits of information to a pool of knowledge which previously had represented the efforts of only a few.

I well remember how in the '20's I was painfully though unsuccessfully trying to convince the "authorities" that meteorites could be discovered by a planned search in the Great Plains. Enthusiastic though I was, I would have branded any man as a radical who would have predicted even half the success we have since attained in this search. I also remember when, a few years ago, it was demonstrated quite "clearly" before a meeting of the Society for Research on Meteorites that no tektites would ever be found in North America, because this continent lay outside the "great circles." Then, within a year after that meeting, hundreds of tektites were being collected in Texas.

Perhaps on some not-too-distant day, man may be permitted to witness the fall of a shower of tektites, and thus finally settle some of the questions regarding

NEWS NOTES

BY DORRIT HOFFLEIT

S.S. GEORGE E. HALE

The memory of the foremost astrophysicist of the past generation has recently been honored in the naming of a victory ship, the S.S. *George E. Hale*, which was launched at 10 p.m., Tuesday, January 19th, by the California Shipbuilding Corporation. This is the 125th ship launched by this company in the present war production program. The keel was laid only 27 days previously. Mrs. G. E. Hale, the astronomer's widow, was the sponsor, and her daughter, Mrs. Paul A. Scherer, was the matron of honor at the launching.

George Ellery Hale was the inventor of the spectroheliograph (also invented independently by Deslandres), founder of the *Astrophysical Journal*, and the genius behind the construction of the Yerkes and Mt. Wilson Observatories with their world's largest refracting and reflecting telescopes. His latest great achievement was the practical conception of the 200-inch Palomar reflector. In 1936, a symposium in honor of his many achievements and services to astronomy was held at Harvard College Observatory. This has been recorded as "The Works of George Ellery Hale," in the July-December numbers of *The Telescope* of that year. Dr. Hale died on February 22, 1938, at 70 years.

Hale's significant services to astronomy began early—at the age of 20 he founded the Kenwood Observatory in Chicago. We trust that the S.S. *George E. Hale* will continue to live up to that spirit of service and devotion to a cause that its name signifies to every astronomer.

DOROTHEA K. ROBERTS

In October, 1942, a noted woman astronomer died in San Francisco at the age of 81. A native of California, she was educated in schools of Germany and France in years when American education could not compete with European. She was the first woman to receive the degree *Docteur ès Sciences* from the University of Paris. In 1887 an international committee adopted plans for the "wholesale" preparation of star charts and catalogues, the *Carte du Ciel*. Dr. Dorothea Klumpke was put in charge of the Bureau of Measurements, which agreed to chart all stars to the 14th

these interesting and puzzling objects. We must not, however, look forward to this too optimistically, because our own planet shields our side of the moon rather effectively. But when that absorbing event takes place, we shall be prepared, and not treat it with such skepticism as were treated the first witnessed meteorite falls.

magnitude and catalogue all to the 11th in a wide belt of the sky—an arduous, tremendous undertaking.

In 1901 she married the British amateur, Dr. Isaac Roberts, and from then until after his death, in 1904, she devoted her energies to his studies of the photography of nebulae and clusters. In commemoration of his birth she published, in 1929, the *Isaac Roberts Atlas of 52 Regions, a Guide to William Herschel's Fields*.

She received numerous honors, the most prized being her election as Chevalier de la Légion d'Honneur, receiving the Cross of the Legion from the President of France, in 1934. It was shortly thereafter that she returned to her native California.

RUSSIAN ASTRONOMY

At least one Russian observatory was still astronomically very active in 1942. A publication from the Abastumani Astrophysical Observatory on Mount Kanobidi contains researches on such technical subjects as carbon isotopes in the spectra of N-type stars; colors of 1,758 stars near the galactic plane; color indices of 155 galactic nebulae; the chromospheres and photospheres of Cepheids; distributions of stars in the Milky Way; spectrohelioscopic and actinometric observations; photographic observations of asteroids; and the accurate latitude and longitude determination of the observatory. We hope 1943 will prove astronomically just as fruitful at that observatory.

SIMON MARIUS COMES INTO HIS OWN

A conflict on priorities has existed ever since the time of Galileo. Who first discovered the moons of Jupiter? Nearly everyone automatically answers, "Galileo." Yet Simon Marius, a German contemporary of Galileo's, laid claim to earlier observations, made in November, 1609, some months before Galileo's discovery. Ernst Zinner, noted historian of astronomy, has studied all the available evidence in detail, and concedes the priority of discovery to Marius.¹ Recognition of the importance of the discovery in displacing the earth from its supposed position at the center of the universe must, of course, still be granted to Galileo. But for Galileo's appreciation of the significance of the discovery, Marius' earlier observations might have remained unannounced.

¹In an article in the *Vierteljahrsschrift der Astronomischen Gesellschaft*, 1942, entitled "Zur Ehrenrettung des Simon Marius."