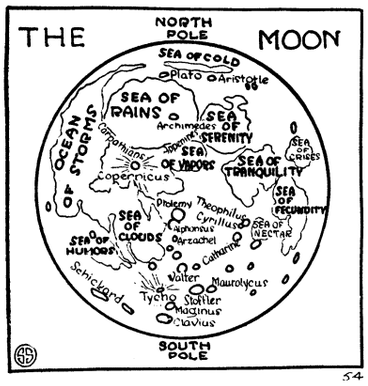
ASTRONOMY

Moon With Opera Glasses



By James Stokley

With the wonderful achievements of the great telescopes in modern observatories, many people have the idea that not much can be seen in the heavens without the aid of these big instruments. But it must be remembered that the discovery of the craters of the moon, spots on the sun, the moons of Jupiter and many of the stars too faint to be seen with the unaided eye was made by Galileo and other early astronomers. Their telescopes were inferior to a good pair of modern prism binoculars, and showed scarcely more than a good pair of opera glasses.

On the moon, especially, a pair of binoculars, magnifying perhaps seven times, reveals a wealth of detail. The waterless "seas," so named by Galileo, are seen far more clearly than with the naked eye. The larger of the lunar craters, which may or may not have a volcanic origin, and which are never within the reach of the unaided eye, can easily be picked up. These are a hundred miles or so in diameter, far larger than any of our terrestrial volcanoes.

The best time for looking at the moon is around first quarter, when it is directly south at sunset. Then, as the sunlight shines at a low angle across the craters in the center of the moon's disc, shadows are formed which bring them into strong relief. As the moon waxes to full, the sunlight shines on them from the same direction as that from which we see them, and so then they are invisible. But at full moon, the seas show up best, and also the great "rays" extending from the craters Copernicus and Tycho.

The names of some of the larger lunar objects are given on the map above. These names were introduced by Giovanni Battista Riccioli, an Italian astronomer. In 1651, forty-one years after Galileo had made the first telescopic observations, Riccioli published "The New Almagest," a ponderous Latin tome. In this appeared his map of the moon with these names that are still used. The various craters are named after great astronomers of his time and earlier, and he was careful to provide a crater for himself. Modestly, however, he chose a fairly small one. As bigger telescopes have revealed still smaller craters, more modern students of the stars have been similarly commemorated.

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MEDICINE

Influenza Death Rate Cut

The general death rate of the industrial population of the United States and Canada for 1927 will probably be the lowest ever reported, according to figures already available from the records of the Metropolitan Life Insurance Company. The chief factor in bringing about this decrease is the drop in the influenza death rate to about half that of 1926, with an accompanying decline in pneumonia mortality.

Deaths from tuberculosis probably will be found to have reached a new low level in 1927, it is stated, attaining a point that would have been regarded as nothing less than visionary as short a time as ten years ago. Whereas the rate was 224.6 deaths for every 100,000 of the company's policyholders in 1911, the indications are that for 1927 it will not exceed 90 per 100,000.

The year just past, however, will show no decrease in the number of accidental deaths over the last three or four years. The rising toll of the automobile, the statisticians report, along with considerably more suicides and a small increase in homicides all combine to make the 1927 record of violent death decidedly depressing.

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ZOOLOGY

Canada to Count Musk Oxen

The animals on the Canadian musk-ox sanctuary, one of the loneliest lands of the earth, are to be visited during the coming year by an explorer of the Canadian Department of the Interior, W. H. B. Hoare. He left Ottawa this month, taking with him a team of six Eskimo dogs imported specially from Baffin island. Proceeding as fast as possible by rail, he will then strike into the interior for the 15,000 square mile reserve in the Northwest Territories, east of Great Slave Lake. This area is almost never visited by white men, and it is believed that even Eskimos and Indians rarely go there.

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BIOLOGY

NATURE RAMBLINGS

By Frank Thone

Scrub Pines

When this country was being settled, there was cast ahead of the first wave of really permanent settlers a restless, poverty-bitten, migrant class of people called "movers." They never held a farm for as much as a decade, but as soon as they heard another family had moved into the next township they decided the country was "gittin' too crowded," and so sold out to the first bidder.

Of such a generation of semi-Ishmaelites are the numerous species of scrub pine to be found in all parts of the world. They are always among the first trees to arrive on a newly exposed terrain, laid bare by a fire, or the moving of a sand dune, or the rising of land from below an old tide level, or left as a mountain-side scar by an avalanche. They are "pore an' no-account" but they are tough and very patient, and they can eke out a living from a spoonful of dust in the cracks of a rock, or from the miserly nutriment offered by a heap of raw, drifting sand.

But neighbors they cannot abide. And when the more prosperous tree species begin to arrive—their settlement more often than not made possible by the soil-forming processes carried on under the shelter of the despised scrubs—the bent and knotted first-comers yield their birthright, and leave their land to the children of strangers. Their own offspring may be found again at the raw frontier, pushing out into the most hopeless places, and taming them a little, to make possible a still farther advance of the trees that will surely come again to usurp their place.

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Parchment paper cut into narrow strips and plaited is being used to make very light hats.

The pod of the Brazil nut weighs from one to two pounds and contains from 12 to 22 nuts.