

## Ant Mound Has 8,239 Inhabitants

Entomology

When the 1930 U. S. Census gets under way it will take in many kinds of live stock, but will perforce have to omit many other kinds, important though these may be in the economic life of our country; among these, ants. The importance of the ant is conceded without argument, especially on picnics and in pantries. But counting the ant population is too much of a job.

Except when a university professor really gets his curiosity aroused. Prof. A. E. Andrews, of the Johns Hopkins University, did not wait for the census year, but made a count of the six-legged citizens of a good-sized ant mound near Baltimore last fall and this spring. In the forthcoming issue of the *Quarterly Review of Biology* he tells of his findings.

The census involved the destruction of the mound, for the ants were so active during warm weather that it was necessary to wait until autumnal

chill had stupefied the insects. Then the mound was carefully picked to pieces and most of the ants removed and counted. The task was completed during the following spring.

A total of 8,239 ants were found in the galleries of the earthwork. Prof. Andrews thinks this represents a fair average for an ordinary ant mound of the species examined. Some European counts have shown three times that many, but other estimates, running as high as half a million ants per mound, he thinks are too high.

In one forested area in Baltimore County, Prof. Andrews counted 200 ant mounds, and in another place, near Washington, 989 mounds. Allowing an average population of 10,000 ants per mound, the first colony would comprise a total of about 2,000,000 insects, and the second something over 8,000,000. Inasmuch as this species is accused of harming young trees, the existence of the ants in such large numbers becomes a matter of economic moment.

## Deafness Traced

Medicine

Diseased ear conditions that cause deafness are usually due to disease in the nose, Dr. Edmund P. Fowler of New York declared in a report of clinical investigations at the Manhattan Eye, Ear and Throat Hospital.

Speaking before the American Federation of Organizations for the Hard of Hearing, Dr. Fowler also stated that variations in deafness, that is, improved or diminished hearing, have been found to be closely associated with improvement or deterioration in the nasal disease conditions.

X-ray examinations of a large number of children attending the clinic on ear diseases revealed pathological conditions in the nasal sinuses, he explained. Treatment of this condition resulted in improving the hearing of more than 50 per cent. of the usual chronic cases of deafness in these children, and in 25 per cent. the improvement is marked.

The children's hearing has been tested from time to time and X-ray examinations have been made.

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## Herschel Discovers Uranus—Continued

moves in a more contracted orbit; and I shall therefore call it in future the first satellite, though last discovered, or rather last ascertained; since I do not doubt but that I saw them both, for the first time, on the same day, which was January the 11th, 1787.

I now directed all my attention to the first satellite, and had an opportunity to see it for about three hours and a quarter; during which time, as far as one might judge, it preserved its course. The interval which the cloudy weather had afforded was, however, rather too short for seeing its motion sufficiently, so that I deferred a final judgment till the 10th; and, in order to put my theory of these two satellites to a trial, I made a sketch on paper, to point out before-hand their situation with respect to the planet, and its parallel of declination.

The long expected evening came on, and, notwithstanding the most unfavourable appearance of dark weather, it cleared up at last. And the heavens now displayed the original of my drawing, by shewing in the situation I had delineated them, *The Georgian Planet attended by two Satellites.*

I confess that this scene appeared

to me with additional beauty, as the little secondary planets seemed to give a dignity to the primary one, which raises it into a more conspicuous situation among the great bodies of our solar system.

For upwards of five hours I saw them go on together, each pursuing its own track; and I left them situated, about two o'clock in the morning on February the 11th, as they are represented in the figure, fig. 1. The letters S. N. P. F, denote the south, north, preceding and following parts of the heavens, as they are seen, by the *front-view*, in my telescope. The south preceding satellite is the second, or that whose motion was first ascertained; the other is that which moves in a smaller orbit, or what I have called the first satellite; and the direction of their motion is according to the order P, S, F, N, of the letters.

I have not seen them long enough to assign their periodical times with great accuracy; but suppose that the first performs a synodical revolution in about eight days and three-quarters, and the second in nearly thirteen days and an half.

Their orbits make a considerable angle with the ecliptic; but to assign

the real quantity of this inclination, with many other particulars, will require a great deal of attention, and much contrivance: for, as estimations by the eye cannot but be extremely fallacious, I do not expect to give a good account of their orbits till I can bring some of my micrometers to bear upon them; which, these last nights, I have in vain attempted, their light being so feeble as not to suffer the least illumination, and that of the planet not being strong enough to render the small silk-worm's threads of my delicate micrometers visible. I have, nevertheless, several resources in view, and do not despair of succeeding pretty well in the end.

W. HERSCHEL.

Slough, near Windsor,  
February 11, 1787.

**Frederick William Herschel (1738-1822)** by the time he had reached his early thirties was a famous organist and composer in Bath, England, having migrated there from his home in Hanover, Germany. From harmony his studies led him to astronomy. With telescopes of his own making he set out upon a comprehensive survey of the heavens. In the course of his observations he discovered the object, at first thought to be a comet, which proved to be the first member of our family of planets to be discovered within historic time.

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