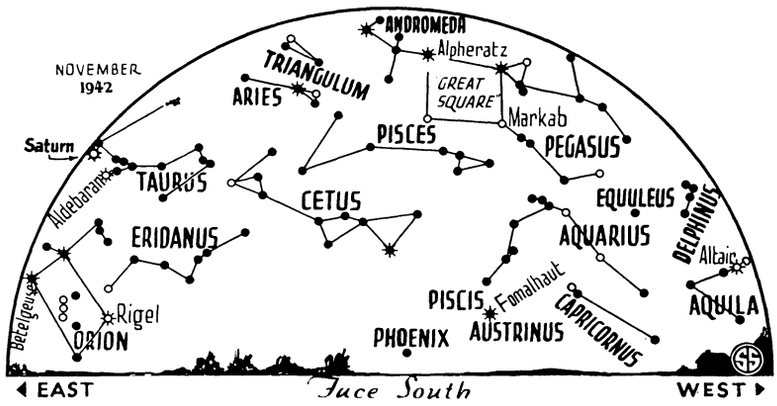

On the average, on the night of November 15, when the Leonids will be at their height, about twenty will be seen an hour, though the number is greater after 1:00 a.m. (wartime, or midnight by eastern standard time) than before. This is because we are then on the advancing part of the earth, and meet the meteors head-on. Those reaching us in the earlier hours must catch up to us.

Celestial Time Table for November

Nov.	*EWT*	
1	2:18 a.m.	Moon in last quarter.
	8:21 p.m.	Algol at minimum
4	5:10 p.m.	Algol at minimum
8	11:19 a.m.	New moon.
10	1:00 p.m.	Moon nearest, distance 225,300 miles.
12	1:00 p.m.	Jupiter stationary, starts retrograde or westward motion among stars.
15	2:56 a.m.	Moon in first quarter.
16	Early a.m.	Leonid meteors.
19	1:14 a.m.	Algol at minimum.
21	10:03 p.m.	Algol at minimum.
22	4:24 p.m.	Full moon.
23	10:50 a.m.	Moon passes Saturn.
24	6:52 p.m.	Algol at minimum.
25	7:00 a.m.	Uranus nearest, distance 1,713,000,000 miles.
26	10:00 a.m.	Moon farthest, distance 252,200 miles.
27	7:49 a.m.	Moon passes Jupiter.
30	9:37 p.m.	Moon in last quarter.

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GENERAL SCIENCE

"Rules of Reasoning" Urged for Modern World

AMIDST FIGHTING the war, scientists both in the United States and in England are marking the tercentenary of the birth of Sir Isaac Newton. His contributions to optics, mechanics, astrophysics and mathematics had such a radical effect upon scientific progress that they are fundamental to our whole civilization.

Newton's great work was the Principia, pronounced the greatest production of the human mind. In evaluating the impact of Newton upon the world, the new British scientific quarterly, *Endeavour* (October) recommends to scientists today Newton's "rules of reasoning" formulated in 1687, saying: "Strict adherence to them would swiftly dispel the miasma of unfounded hypothesis that still from time to time vitiates the atmosphere of science." The world at large may be similarly admonished.

Here are Newton's rules:

1. We are to admit no more causes of natural things than such as are both true and sufficient to explain their appearances.

2. Therefore to the same natural effects we must, as far as possible, assign the same causes.

3. The qualities of bodies, which admit neither intensification nor remission of degrees, and which are found to belong to all bodies within the reach of our experiments, are to be esteemed the universal qualities of all bodies whatsoever.

4. In experimental philosophy we are to look upon propositions inferred by general induction from phenomena as accurately or very nearly true, notwithstanding any contrary hypotheses that may be imagined, till such time as other phenomena occur, by which they may either be made more accurate, or liable to exceptions.

Science News Letter, October 31, 1942

GENERAL SCIENCE

Smithsonian Research Adapted to War Effort

➤ SMITHSONIAN INSTITUTION research programs have been adapted to the needs of the country at war. Since the United States was thrust into the conflict by enemy aggression, over 500 scientific problems have been presented for solution by the Institution's specialists. They range through all the sciences, from the workings of machines and weapons in its extensive collections to the languages and customs of South Sea Island tribes.

This is the fourth war in which the Smithsonian Institution has functioned as an arm of the government. In previous conflicts queries were mainly in the field of mechanics and invention. In this total war, they run through the whole alphabet of the sciences, from anthropology to zoology.

A special committee has been appointed for the coordinating of the scientific war efforts of the Institution's staff of nearly 100 scientists. Under the chairmanship of Carl W. Mitman, historian of inventions, it comprises also L. B. Aldrich, physicist, Wm. N. Fenton, ethnologist, Herbert Friedmann, biologist, and W. P. True, chief of the Smithsonian editorial division.

Despite immediate urgency of war work, the Institution's normal aims of peaceful, constructive research are not being shelved, declares Secretary Charles G. Abbot. Even the programs that have had to be suspended because of the war are left in such condition that they can be resumed as promptly as possible on the return of peace.

Science News Letter, October 31, 1942

PUBLIC HEALTH

Salesmen Pinch-Hitting For Doctors as Advisers

➤ SALESMEN are successfully pinch-hitting for doctors on the staffs of several health departments and there should be more such use of lay personnel in these days of acute doctor-shortage, Dr. R. A. Vonderlehr, U. S. Public Health Service, told the National Conference on Venereal Disease Control Needs in Wartime at Hot Springs, Ark.

The salesmen, of course, are not treating patients. But men who used to sell vacuum cleaners, electric refrigerators and the like have been given training in the basic facts of venereal disease and are now successfully selling the public on methods of protection against syphilis and gonorrhea.

The syphilis spirochete and the gonococcus are not part-time saboteurs, Dr. Vonderlehr pointed out, urging that all State health departments use full-time salesmen or other trained lay personnel to combat these foes by health education.

Science News Letter, October 31, 1942