



### By Command of the Sun

**M**ARCH sunshine, and even February sunshine, have as much to do with bringing forth May flowers as have the traditional April showers. And it is not merely the sun's part in thawing the snow and ice of winter, nor his gifts of food through the sugar-making factories in the leaves, that bring about the miracle of bloom in spring woods and fields, but the long-neglected astronomical fact that each day is a little longer than the day before.

For uncounted centuries people had seen the flowers spring up as the sun returned northward after his winter retreat. The connection of increased sunlight with the pleasures of spring had not escaped even the oldest of peoples. From the Nile to the Baltic, from India to Yucatan, men made a god of the sun and invented myths of spring, some of them most poetic and beautiful.

But it was not until a short time ago that two scientists of the U. S. Department of Agriculture, Dr. W. W. Garner and H. A. Allard, discovered that the changing length of day is a potent control over the blossoming time of plants. They put numbers of different kinds of flowers and vegetables into a greenhouse equipped with shades and electric lights, so that they could give them a wholly artificial length of "day," making it at will longer or shorter than the natural day. They soon found that plants whose season of bloom came before midsummer were stimulated into flower production by increasing the light-period a little each day, whereas plants of naturally late flowering habits could be brought into bloom by daily

shortenings of light. Typical "long-day" plants are crocus, hyacinth, iris, columbine, lily of the valley—all spring flowers. "Short-day" flowers include goldenrod, aster, chrysanthemum, sunflower—flowers of autumn and late summer.

Since these pioneer workers carried on their experiments, many other botanists, as well as commercial florists, have repeated the work and elaborated on it, so that greenhouses are hardly accounted complete unless they have their batteries of electric lights to make artificial lengthening of daylight possible. But in our admiration of the ingenuity of human gardeners, we must not lose sight of the fact that the first to use this method of bringing flowers into bloom by changing the length of day was the ruler of day itself, the sun.

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#### PUBLIC HEALTH

## Big Increase in Leprosy Due Largely To Better Reporting

**L**EPROSY is increasing in many parts of the world by leaps and bounds.

This startling declaration made by Dr. O. E. Denny, director of the U. S. Marine Hospital at Carville, La., national leper home, needs some qualifying, Dr. Denny explained in a Science Service interview. He discussed the leprosy problem at the meeting of the medical board and the advisory committee on research of the Leonard Wood Memorial, a fund supported by the American public and devoted to the study of the nature and treatment of leprosy.

The number of known cases of leprosy is increasing in many countries, Dr. Denny explained. In the United States, for example, each year more cases are discovered and segregated. But there are probably no more cases of the disease now than there were 25 years ago. The apparent increase, that is, the increase in reported cases, is due to the fact that doctors are learning more and more to recognize cases of leprosy and to diagnose it correctly.

In India, for instance, there were about 300,000 recognized lepers about 50 years ago. Now there are between one and three million recognized lepers in that country. Whether this enormous

### Cover Picture

**W**HILE DREDGES grappled with her sister ship's twisted girders and soaked fabric in the watery Atlantic grave off Barnegat Light, the Macon took to the air. The front cover presents the new queen of the skies as she appeared before being "walked" from the huge Akron air dock for the first trial flight.

The photograph is a study in superlatives. The end of the air dock, through which the Macon is exposed, is 325 feet wide and 200 high. Its length is 1,175 feet. Even the world's largest airship is dwarfed in this structure. The Macon has an overall length of 785 feet, overall height of 146 feet and a 6,500,000 cubic-foot gas capacity.

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The Aztec Indians called corn "teocentli" meaning food of the gods.

increase is real or is apparent and due to better diagnosis and reporting, we shall never be able to find out, Dr. Denny said. Probably the increase is only apparent, however.

In one or two countries there is an actual increase in leprosy. In South America, authorities are concerned over the situation. In Argentina, where there was no leprosy to speak of 25 years ago, it seems to be increasing in actual fact. A possible explanation may be that more and more remote mountain villages and their Indian inhabitants are coming into contact with the larger towns and with civilization. Leprosy is to some extent a disease of civilization, and it is being spread as commerce grows between the remote villages and the larger towns where a few cases of the disease exist and where the Indians may come in contact with it for the first time.

In the South Pacific, in one or two of the very small islands, leprosy also is increasing and here, too, Dr. Denny believes the increase is a real one.

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A new broadcasting station near San Francisco was christened on its opening night with a "bottle of nothing"—a glass bulb containing the nearest approach to a vacuum that can be made.