



miles, or about 17,000 miles nearer than its mean distance.

This will have a bearing on the height of the tides. These, as most people know, are caused by the gravitational pull of both moon and sun. When these bodies are in line, as they are at new or full moon, the two pulls reenforce each other, and the tides are extra high or low. These are the spring tides, which have nothing to do with the season, since they occur in autumn as well. Neap tides occur at first and last quarter, when the effect of the moon counteracts that of the sun, and the extremes are much less.

The distance of the moon from the earth also plays a part, for its effect is most when closest. So when it is closest at the time of full moon, as it is this month, the tides reach a maximum. At Sandy Hook, for instance, on April 3, the neap high tide reaches a height of only 3.5 feet above mean low water, a rise of only 3 feet from the preceding low. But on April 12 the high spring tide, at a height of 6 feet, is 7.4 feet above the previous low.

PUBLIC HEALTH

# Measles Increasing Among Civilians But Not In Army

**M**EASLES is continuing to increase among the civilian population but fortunately the young men in Army training camps have escaped the epidemic.

A total of 43,060 cases were reported by state health officers to the U. S. Public Health Service for the week ending March 15. The previous week's total was 34,420. States chiefly affected are New York, Pennsylvania, Ohio, Illinois and Michigan, each of which reported

At Dover, England, where the tidal changes are greater, the spring high on the 12th at 11:38 p.m. London time, is 20 feet above mean low water, 5 feet higher than the neap high on the 4th. If the Nazi invasion has not previously been attempted, Hitler might find that a good opportunity, since the full moon would furnish illumination.

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## Celestial Time Table for April

**Tuesday, April 1**, after 9:00 p.m., Occultation of Aldebaran. **Friday, April 4**, 7:12 p.m., Moon in first quarter. **Thursday, April 10**, 4:26 a.m., Algol at minimum. **Friday, April 11**, 4:15 p.m., Full moon. **Saturday, April 12**, 3:00 a.m., Moon nearest; distance 222,000 miles. **Sunday, April 13**, 1:15 a.m., Algol at minimum. **Tuesday, April 15**, 10:04 p.m., Algol at minimum. **Friday, April 18**, 8:03 a.m., Moon in last quarter; 6:53 p.m., Algol at minimum. **Saturday, April 19**, 12:26 p.m., Moon passes Mars. **Monday, April 21**, early a.m., Meteors of Lyrid shower visible. **Saturday April 26**, 8:00 a.m., Moon farthest, distance 252,600 miles; 8:23 a.m., New moon. **Sunday, April 27**, 4:59 a.m., Moon passes Saturn; 5:55 p.m., Moon passes Jupiter.

4,000 or more cases for the week. Virginia reported 1,900, New Jersey 2,500 and North Carolina 921.

There is no recognized epidemic of measles or any other respiratory disease in any of the Army training camps at the present time, according to reports received in the Surgeon General's office.

Army medical authorities feel they have been fortunate because no epidemics of respiratory disease have occurred in

the training camps this past winter. Even influenza, which was widespread throughout the civilian population, did not reach epidemic proportions in the training camps.

One reason for the absence of these diseases, it was pointed out, is the system whereby the young men are held in many small reception centers for a considerable period before being sent to larger training camps. The period of stay in the reception centers is long enough to cover the incubation period of the ordinary communicable diseases.

"Working quarantine" is another measure used by the Army to fight epidemics. If one or two men in a company get measles, the entire company would be put in work-quarantine, going ahead with their work, but segregated from the rest of the men in the camp. This helps to limit the spread of the disease.

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ICHTHYOLOGY

## Electric Device Aids In Study of Herring

**"E**LECTRIC detectives" are the newest aids to Canadian scientists engaged in the study of the lives and travels of Pacific Coast herring. Data obtained are needed for the more intelligent and efficient management of this important natural food resource.

The scientists insert metal tags bearing date and place of capture into the bodies of herring hauled up in their nets. Then they toss the fish overboard again. After a time, some of the tagged herring are again captured by commercial fishermen, along with thousands of other, untagged fish.

At the processing plant, induction coils on the conveyor system pick out the tagged fish by the electrical disturbance set up by the metal tags as they pass the coils. This causes a trap door to open, and the tagged fish fall through, along with some others.

Later, all the fish caught through the trap door are sent over the conveyor system again, spaced some distance apart, and this time only the tagged fish fall through the trap door. From these tagged fish, scientists can then reconstruct the story of each herring's travels and growth since its first capture. Gradually, by this and other means, the scientists can build up an accumulation of data on the life and ways of herring and thus ascertain what steps are desirable to conserve the fishery and protect fishermen's interests.

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