

ASTRONOMY

# 19-Day September

► "THIRTY DAYS hath September . . ." begins the old calendar rhyme, but 200 years ago, September had only 19 days for people in America and England.

Thursday, Sept. 14, followed immediately after Wednesday, Sept. 2, in the year 1752. Many people felt they had been robbed of 11 days, and riots resulted. "Give us back our fortnight!" was a familiar cry.

The cause of this peculiar short month was the introduction of the Gregorian calendar, adopted two centuries previously in many Catholic countries, into England and the American colonies.

The Julian calendar, used by many countries at the time, was not based upon an exact enough estimate of the length of the tropical year. As a result, the vernal equinox, which occurred on March 21 at the time of the Council of Nicaea in 325 A.D., began arriving earlier and earlier. By 1582, it fell on March 11.

## Do You Know?

Accidents kill more young children than does any single disease.

Hawks apparently have the sharpest vision of all creatures.

In general, human births are most frequent in August or September; they are less frequent in April or May.

Stream pollution, a long-time problem in an Ohio area, was stopped in six days after the state brought suit against the companies responsible.

Prestressed concrete beams are "squeezed" together at their lower sides by taut wires or rods to counteract stretching forces when heavy loads move over them.

Eye strain from too much reading or close work partly is due to prolonged contraction of the ciliary muscle; the muscle makes the eye lens more convex when objects near the person are being viewed.

The sun is responsible for all the trouble man has experienced throughout the ages in trying to develop a reliable calendar. Instead of completing its apparent trip among the stars in an even number of days or hours, the sun takes 365 days, five hours, 48 minutes and 46 seconds to return to an equinox.

To make a more exact calendar, Pope Gregory XIII, upon the advice of the astronomer Clavius, in 1582 ordered the calendar corrected by dropping 10 days. In France, Spain and other Catholic countries, the day following Oct. 4, 1582, was called the 15th instead of the fifth.

To avoid further displacement of the beginning of spring, Gregory decreed that the rule of adding an extra day every fourth year should be followed except in the case of those century years whose number is not divisible by 400. Thus 2000 A.D. will be a leap year, but 2100 will not, nor was 1900.

The new-type calendar was not adopted in England and her colonies until the 18th century. By that time, 11 days had to be dropped to bring the calendar in line. The new calendar was recognized in China and Russia early this century, at which time the two calendars differed by 13 days.

Science News Letter, September 13, 1952

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