



11, 1956, Mars will be only 35,400,000 miles away. By that time powerful new telescopes, such as the 200-inch at Mt. Palomar, which will start operation this year, and the 120-inch of the Lick Observatory, now planned, will be in operation. New electronic observing techniques, now under development, may well by then have been perfected, further augmenting our telescopic powers, and the solutions to many problems concerning this red planet may finally be given.

One of the chief of these concerns the so-called "canals," curious straight markings on its surface which some expert observers with the largest telescopes never could see, while others have reported seeing them plainly with smaller instruments. They are best observed with the eye at the telescope. Some photographs seem to show them, but not clearly, for they are just at the limit of what can be recorded in this way.

The trouble is that the air through which we have to point our telescopes is continually in motion, and this bends the light rays and blurs the image. Occasionally, perhaps only for a fraction of a second, conditions may become very steady and the visual observer can get a glimpse of very fine detail. Since, in the past, photographic exposures have been at least several seconds, they were always

somewhat blurred. The tremendous light-gathering power of the 200-inch telescope may make it possible to take very short exposures which will catch the instants of "good seeing." This will involve taking hundreds or even thousands of pictures, one after the other, and then studying them to see which is the best. No doubt such a program will be carried out in 1956 at Mt. Palomar, and also, perhaps, about June 25, 1954, when Mars will be a little more than 40,000,000 miles away.

**Time Table for February**

Feb.	EST	
1	7:31 p. m.	Moon in last quarter
4	11:00 a. m.	Mercury farthest east of sun, visible for a few days in west in early evening
5	1:08 a. m.	Moon passes Jupiter
8	9:00 p. m.	Saturn opposite sun and nearest earth, distance 761,610,000 miles
	10:02 p. m.	New moon
9	1:00 a. m.	Moon farthest, distance 252,670 miles
11	1:07 a. m.	Moon passes Mercury
13	7:03 a. m.	Moon passes Venus
17	11:00 a. m.	Mars opposite sun and nearest earth, distance 63,020,000 miles
	8:55 p. m.	Moon in first quarter
19	10:00 p. m.	Mercury between earth and sun
23	7:45 a. m.	Moon passes Saturn
	7:00 p. m.	Moon nearest, distance 222,130 miles
24	8:51 p. m.	Moon passes Mars
	10:10 p. m.	Full moon

Subtract one hour for CST, two hours for MST, and three for PST.

Science News Letter, January 31, 1948

in England, owned by the Duke of Bedford, is not quite purebred—there is a little more than three percent of domestic cattle blood in the strain.

The wisent is a taller, longer-bodied animal than its American cousin, states Mr. Glover. It is higher in the hind-quarters and not so thick in the body. He regards the wisent as much superior to the American bison.

Wisent are naturally forest animals, requiring food elements obtained by browsing on twigs and bark of shrubs and trees for best health. They do, however, eat some grass.

Before World War I there was a large herd in the Caucasus region, comprising well over a thousand head. There was a smaller herd, of possibly 200 animals, in a forest preserve in Poland. Besides these, there were smaller groups elsewhere in Europe, principally in zoos. During the period of confusion and want after 1918, all the animals in the Caucasus herd were killed for food by the natives of the region. The herd in Poland survived, but World War II resulted in the disappearance of most of its specimens. Now the rehabilitation of the species must be attempted with the 97 known pure-blooded animals.

In prehistoric times the wisent was abundant and widely distributed over Europe and parts of Asia. Its pictures were accurately drawn by Cro-Magnon artists in the caves of France and Spain. It figures in very early Mesopotamian art, and was probably the prototype of the great winged bulls of Assyria, long after it had disappeared from that part of the world.

During the Middle Ages and early modern times, hunting and the spread of cultivation steadily diminished its numbers and drove the survivors eastward. Then the staggering blows of two world wars have all but finished it off.

Science News Letter, January 31, 1948

**WILDLIFE**

# Bison Near Extinction

► THE European bison, or wisent, close cousin to the North American bison, has been pushed to the edge of extinction by two world wars, reports Richard Glover of the University of Manitoba. Most recent available figures show a total of exactly 97 pure-bred specimens, 48 of them males and 49 females. Fifty of the animals are in Poland and the USSR; the rest are divided among Germany, the Nether-

lands, Sweden and Switzerland. If there is to be a comeback of the species, it is from these animals that the new stock must be bred.

Since the wisent crosses readily with both American bison and domestic cattle, there are a good many hybrids in various European countries. These, however, will be rigidly excluded from the comeback effort. Unfortunately, a well-tended herd

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