

◊ * ○ • SYMBOLS FOR STARS IN ORDER OF BRIGHTNESS

some months, in Virgo, but it is in the sign of Scorpion, and not until some time in 1956 will it actually be in the latter constellation.

So if you should come across a reference, perhaps in some almanac, to a planet being in a certain sign, remember that you will not find it in the star-figure of that name. It is most likely to be in the one next door, to the west.

Celestial Time Table for May

May	EST	
2	2:00 a.m.	Moon nearest, distance 222,200 miles.

3:22 p.m.	New moon.	
4	7:51 a.m.	Moon passes Venus.
5	3:10 p.m.	Moon passes Jupiter.
8	6:00 p.m.	Mercury directly beyond sun.
9	1:17 p.m.	Moon in first quarter.
14	9:00 p.m.	Moon farthest, distance 252,300 miles.
16	2:17 a.m.	Moon passes Saturn.
17	4:47 p.m.	Full moon.
21	3:22 a.m.	Moon passes Mars.
23	7:09 a.m.	Venus passes Jupiter.
25	8:49 a.m.	Moon in last quarter.
30	8:00 a.m.	Moon nearest, distance 224,200 miles.

Subtract one hour for CST, two hours for MST, and three for PST.
 Science News Letter, April 24, 1954

GEOGRAPHY

Cultural History Hint

► **DESCRIPTIVE TERMS** in place names like the "brook" of New England and the southern "branch" or "run" can tell us a great deal about the cultural backgrounds of this country, Dr. Wilbur Zelinsky of the University of Wisconsin told the meeting of the Association of American Geographers in Philadelphia.

Such terms have survived only from those pioneer groups who established their dominance at an early date and managed to keep it for a considerable period, Dr. Zelinsky explained. There is no trace, he said, in place names of the brief Swedish occupancy of the lower Delaware or of the Spanish tenure of Georgia.

Many of our terms have come from England, but many have undergone radical changes in meaning when they moved to the new world. The word "creek," for example, in England was used to apply to salt-water inlets or tidal estuaries, but in this country, except along the New England coast, the term is applied to small fresh-water streams.

The word "brook," which originally in England meant a torrent, became the designation for any small stream in New England and later traveled far into the northern Middle West.

In the South, the place of "brook" is taken by the term "run." The use of this

word in the homeland was quite infrequent and limited to a few areas in Scotland and the north of England. The question of how this obscure word became so widespread in this country is a major enigma, Dr. Zelinsky said.

In other cases, the distribution of the use of terms is puzzling. "Hill" is a nearly universal word in the United States, but there is a notable concentration of "hills" in New England. "Knob" is limited to the Southern Appalachians and, ironically, is seldom used in the unusually knobby New England terrain.

What is a "notch" in New England becomes a "gap" in the Southern Appalachians. A "glen" or a "gully" in New York and New England may be called a "draft" in Virginia.

A small crossroads hamlet in New England may have "corners" as part of its name, while in Virginia it will have "forks."

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The male *prairie chicken* has a wind sac on his throat with which he makes a booming call.

More than half the earth's surface is covered by sea, but only about one percent of the *food* for the earth's 2,500,000,000 people comes from this huge water area.

BIOCHEMISTRY

Bone Marrow Gives Radiation Protection Clue

► **BLOOD PLASMA** and bone marrow, where blood cells are formed, are giving new leads to possible protection against radiation, whether from A- and H-bombs or X-rays.

Blood plasma transfusions given before exposure to fatal amounts of radiation will protect mice from death, Drs. Agnes N. Stroud and Austin M. Brues of Argonne National Laboratory, Chicago, reported at the meeting of the American Federation of Societies for Experimental Biology in Atlantic City, N. J.

Injections of bone marrow after exposure to high doses of X-rays prevents or retards destruction of body tissue proteins that usually comes with such X-ray doses, Dr. Julius White and associates at the U. S. National Cancer Institute reported.

The plasma transfusions would not be practical for protecting humans from A- or H-bomb death, the Argonne scientists declared. For one thing, enormous transfusions would be needed in the critical five to 30 minutes before the radiation came.

However, the material in plasma, perhaps a globulin, that is protective might be isolated and show scientists what kind of chemical could be made for radiation protection. So far the Argonne scientists have not isolated the material, although they think they are on its track. Gamma globulin, used for polio, has some of the protective material, but less of it than other globulins in blood.

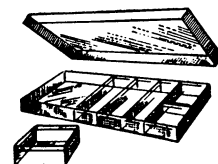
The bone marrow findings are considered important because they give the first sign that tissues other than blood cells are affected by radiation. Heretofore, radiation death has been chiefly attributed to blood cell destruction.

Previously, the late Dr. Egon Lorenz of the National Cancer Institute had shown that bone marrow injections given after radiation significantly reduced mortality in guinea pigs.

The National Cancer Institute studies give support to the idea that the material which protects against radiation circulates in the body, probably outside the cells, and may be a chemical made by cells in the bone marrow.

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