## Self-Taught Forecasting

*(Continued from p. 290)*

ture falling below that of the layer of air in contact with the ground. The air near the ground then becomes cooler and more dense than the air above, and this lower layer tends to remain in contact with the ground. Thus, over level land on a clear, calm night, there is near the ground a thin layer of colder air with a layer of warmer air above it.

On sloping ground, this cooled surface air tends to drain toward lower levels and to gather in depressions so that the temperatures in valleys and at the bottom of hills are lower on a calm night than the temperature on hillsides.

Night winds are of great importance in determining temperature differences, and even a light wind will mix the warm air above and away from slopes with the thin layer of surface air which has been cooled through contact with the ground. A moderate wind may so thoroughly mix the air that there will be little or no temperature difference between the hillsides and valleys.

A layer of low clouds or a thick layer of ground fog helps prevent loss of heat from the earth at night and keeps temperatures from dropping as low as they otherwise would.

• Science News Letter, 81:290 May 12, 1962

PHYSICS

## Nuclear Fission Pictured By Model of Fragments

### See Front Cover

➤ THE GLITTERING Lucite rods, shown on the cover of this week's SCIENCE NEWS LETTER, picture the energies of nuclear fragments resulting from neutron-induced fission of millions of uranium nuclei.

The model was demonstrated recently by Dr. Walter M. Gibson of Bell Telephone Laboratories, shown in the picture. Two crystal counters were used to obtain information on which the model is based. The counters allow precise measurement of a large number of fissions in a short time.

The two horizontal axes at the base of the model correspond to the energies of the two fission fragments. The length of the vertical rods indicates the number of fissions that occurred. The three black lines on the left mound correspond to 10,100 and 1,000 fissions.

• Science News Letter, 81:303 May 12, 1962

## Questions

GENERAL SCIENCE—How many of the Nobel Prize winners visiting President Kennedy were scientists? p. 291.

PALEONTOLOGY—Which other animals do "animal" organisms two billion years old resemble? p. 298.

PHYSICS—How many photographs were analyzed in the discovery of the Eta meson? p. 292.

*Photographs:* Cover, Bell Telephone Laboratories; p. 290, U. S. Weather Bureau; p. 291, United Press International; p. 293, Piasecki Aircraft Corporation; pp. 294 and 296, National Aeronautics and Space Administration; p. 298, Dr. Elso S. Barghoorn; p. 299, L. O. Nicolaysen; p. 304 (top), Rosi-Trac Rail, Inc.