

meninges (the membrane that envelops the brain).

Feeling that perhaps the hemorrhages were an effort of nature for relief, when everything else failed, Drs. Lawson and Graybeal tried venesection.

Within two days the man was mentally clear and physically in good shape. Now whenever he feels a fulness in the head or the joints, he comes to one of these two doctors and has about a pint of blood removed.

The two other cases reported are of boys 10 and 15, one with a family history of hemophilia and the other without such a history.

In all these venesections, Drs. Lawson and Graybeal use an aspirating needle in one of the veins of the arm. There has been no subsequent bleeding at the point of insertion.

In commenting on the three cases, the physicians say:

"Our studies suggest that in hemophilia there are other factors in the hemorrhagic condition besides the delayed coagulation time, such as an increased volume of blood or more fragile capillaries, and it is possible that extravasation in the tissues may tend to increase hemorrhage."

In the Lawson-Graybeal cases venesection has been used only at the time of a bleeding crisis.

Whether the treatment would be of value in cases in which there is a lacerated wound, such as occurs when a tooth is pulled or a finger mashed, they are not yet ready to say.

Science News Letter, December 10, 1938

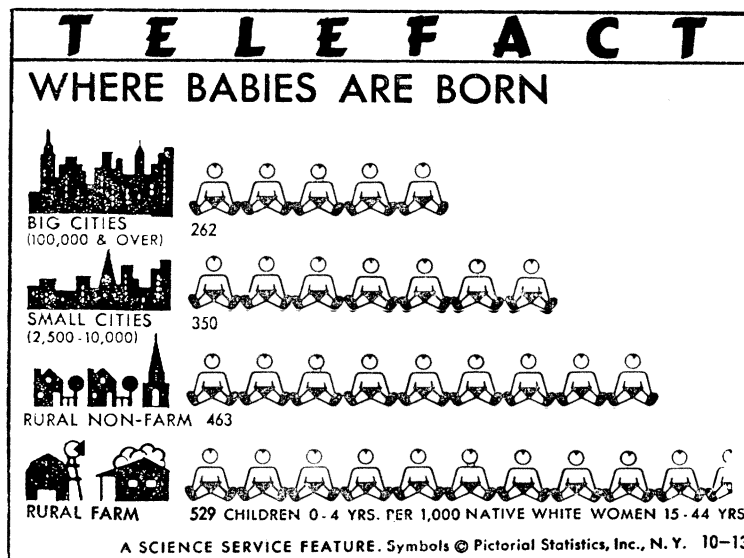
SEISMOLOGY

Earthquake Observatory Established in California

A NEW seismological observatory has been established by the University of California, in the town of Mineral, which is situated in Lassen National Park, near the only active volcano in the United States proper. This is the seventh station for the study of earthquakes to be established in the state by the University.

Setting up instruments at Mineral does not mean that seismologists expect renewal of volcanic activity on the part of Lassen peak, it was explained, but only that a station was needed in this part of the state, and that its work can be facilitated by the presence of scientists of the National Park Service in the region, together with the cooperation of the Seismological Society of America.

Science News Letter, December 10, 1938



EASY TO READ

Telefacts were first designed for use by newspapers. If you like them, why not suggest to the editor of your favorite paper that he should use this effective method for presenting important facts in a form that is easy to understand and remember?

BACTERIOLOGY

Bacteria Turn Wood Sugars Into Valuable Chemicals

Butyl Alcohol Is Principal Product; Lesser Amounts Of Ethyl Alcohol and Acetone Were Also Obtained

CHEMISTS at the University of Wisconsin are now using bacteria to turn sugar, made from wood, into valuable chemicals.

Butyl and ethyl alcohol, acetone and isopropyl alcohol are among the chemicals which have been produced experimentally by the fermentation of wood sugars.

Sugars from trees like hemlock, beech, maple and birch are no new thing, for in Germany there has been much research on the problem and two methods—those of Bergius and Scholler—are in commercial production.

Wood Sugar Obtained

In the Scholler process dilute sulfuric acid is percolated through shredded wood under pressure at high temperature and a dilute solution of wood sugar is obtained.

N. O. Sjolander, A. F. Langlykke and W. H. Peterson of the chemistry department at the University are using similar dilute sugar solutions as the starting point of their fermentation process. (*In-*

dustrial and Engineering Chemistry, Industrial Edition, November)

The find that the butyl anaerobes *Clostridium felsineum* and *Cl. Butylicum* are able to ferment wood sugar solutions having a concentration up to five per cent. almost completely.

The first of these microorganisms, *Cl. felsineum*, gives the same distribution of products produced by fermentation as did common sugar, glucose, when it is fermented. Butyl alcohol was the principal product. Lesser amounts of ethyl alcohol and acetone were obtained.

The other organism, *Cl. butylicum*, produces these same chemicals out of the wood sugar but, in addition, it creates considerable amounts of isopropyl alcohol. In fact, the organisms produce more of this chemical from wood sugar than they can from glucose.

Science News Letter, December 10, 1938

The Red Cross is now training skiing enthusiasts and ski patrols in expert methods of handling people injured in winter sports.