

the sun's edge, hanging there for about forty minutes. Such a transit occurs but once in nearly a thousand years, and thus it should provide an excellent opportunity of studying Mercury at leisure to see whether there is the arc of sunlight around the portion not projected upon

the sun's disk.

"The presence or absence of such an arc would go a long way to settle the conflict between the planetary observers and the theoretical astronomers," says the author of the note.

*Science News Letter, June 29, 1935*

ECOLOGY—AGRICULTURE

## Intensive Weather Research Valued Above Klondike Gold

### Accurate Knowledge of Climatic Factors Needed For Intelligent Planning of Western Agriculture

"**M**ORE THAN all the gold in the Klondike" was the value-estimate set on a proposed program of intensive research on weather records of the past eighty years, by Dr. Isaiah Bowman, chairman of the National Research Council and director of President Roosevelt's Science Advisory Board, in an address delivered before the American Association for the Advancement of Science.

Emphasizing the necessity for accurate and dependable scientific knowledge in the development of long-range plans for land use, if repetitions of past disasters due to drought, dust storms, erosion and floods are to be avoided in future, Dr. Bowman said:

"Neither a scientist nor a governmental official can handle the problems of the drought on a hunch. We can never solve the problems of the drought by stopping the drought. We can only provide to some degree against its effects; and if we were forewarned against its coming the degree of provision against its effects could be greatly increased. Likewise, we can never solve the problems of soil erosion by stopping erosion. We can only reduce the rate of erosion. The effects of drought and soil erosion will outlast all the regulatory schemes of today.

"Amazement at the dust storms should not lead to the neglect of long-range studies. A strong force of experts should be working on the mass of climatological data on the Great Plains accumulated during the past 50 years by the Weather Bureau. If this were done the result would certainly be more valuable over a ten-year period than all the gold produced in the Klondike."

Such a study would be invaluable in

determining the location of the much-debated Great Plains shelterbelt region, Dr. Bowman suggested. Even on the basis of present imperfect knowledge, the Forest Service has already shifted the projected lines considerably to the eastward of their first proposed location.

But the immediate problem of the semi-arid western part of the Great Plains is not only where to plant more trees and shrubs, waiting twenty to thirty years for results, he continued. Even more urgently is it a challenge "to work out a land-use plan for the grasslands of the vast region west of the proposed shelterbelt and to start operat-

ing the plan now. The climatic map shows us how vast is this marginal area. . . . In two land types where risk is greatest lies the land on which in favorable years farmers are most strongly tempted to grow wheat. There the wheat farmer literally gambles on the rain.

The two types represent areas of maximum risk not because they are occasionally very dry but because they are occasionally so favorably wet as to cause agricultural overextension. To these difficulties has recently been added widespread and unexpectedly severe wind erosion. While the farmer is waiting for a return of moist years, the wind carries his farm aloft.

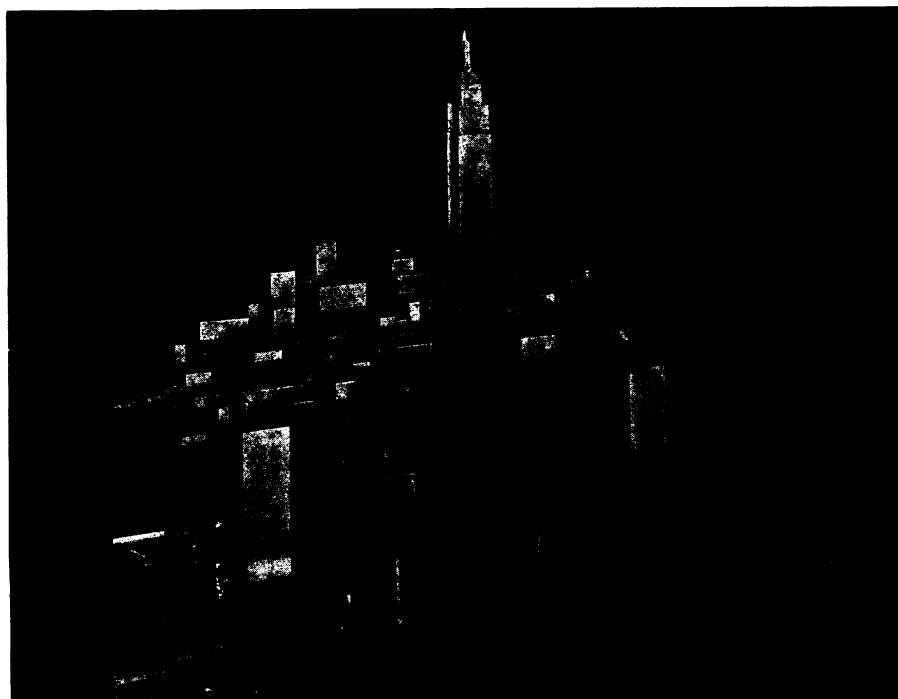
"The problem of the farmer turns on the question, how far can he go in reaping the bounty of the land in wet years and yet survive the penalties of inevitable drought? The problem of the government is to determine whether a man shall be allowed to grow grain in places where he can do so and ought not to."

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ENGINEERING

### Miniature Manhattan In Artificial Wind

**T**O DETERMINE how winds stress large buildings, National Bureau of Standards scientists have built a model of the world's highest structure, New



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York City's Empire State Building, and several blocks of its surrounding buildings.

Subjected to regulated and artificial breezes in a ten-foot wind tunnel, this miniature Manhattan gives information that will allow engineers to design buildings that are safe in high wind-storms with due regard to least possible cost.

The 1,248-foot world's tallest structure is reduced in the model to a 5-foot

height. Frequent visitors to New York will be able to pick out familiar landmarks in the model, which is viewed toward the east in the accompanying illustration.

Wind pressure is one of the important factors in designing tall buildings, radio masts, water towers and chimneys. Bureau of Standards experts hope that measurements upon the Empire State Building in natural winds will be made so that they can be compared with the model's wind tunnel results.

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#### MEDICINE

## Supposed "Thymus Deaths" May be Due to Allergy

**S**UDDEN and mysterious deaths of small children, heretofore blamed on the thymus gland in the chest, may instead be due to extreme sensitiveness to an irritant of the sort that causes hay fever and asthma in adults, Dr. George L. Waldbott, of Detroit, told members of the American and Canadian Medical Associations at their recent meeting.

Dr. Waldbott based his opinion on changes found in the thymus glands and other organs after the deaths of children who died a so-called thymic death. These changes were strikingly similar to those found in infants that had suffered from asthma known to be due to supersensitiveness.

Enlargement of the thymus gland cannot be considered a result of the supersensitiveness, or allergy as it is termed medically. Persons with hay fever and allergy, Dr. Waldbott pointed out, do not as a rule have enlarged thymus glands, nor do children with the enlarged gland show symptoms of supersensitiveness. He therefore suggested that the enlarged gland may be a "pre-allergic" phenomenon.

During this "pre-allergic" state the body apparently has not a sufficient defensive force for fighting an invasion of irritating foreign substances, Dr. Waldbott suggested in explanation.

No effective treatment is known for the condition, but preventive measures offer some hope of warding off these deaths, Dr. Waldbott said. If they are really due to allergy, then any child whose parents have such an allergic condition may be expected to develop it, because such supersensitiveness seems to be hereditary.

Such children should be guarded against exposure to all the things that

can cause hay fever or other allergic attacks, Dr. Waldbott advised. These include weeds, face powder, chilling, over-heating, and taking of foods or drugs to which they may be sensitive.

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Sigillography is the science of deciphering and interpreting seals.

#### ARCHAEOLOGY

## Ditch In Guatemala Reveals Ancient Well

**D**ISCOVERY of an orange-red pottery well, from which thirsty Maya Indians drew water centuries ago, is announced by Oliver G. Ricketson, Jr., of the Carnegie Institution of Washington. (*Maya Research*, April).

The ancient well, which shows how ingenious Mayas stored water, was unearthed at Quirigua, Guatemala, where one of the Mayan cities was located. It consisted of a pipe of pottery which led down to a big pottery water jar. The jar was buried in stones and sand and served as a cistern. Holes in the jar below the water table permitted free entrance of water.

In the bottom of the jar the archaeologist found a used mano, or grinding stone, which suggests that some Indian woman lost it down the well.

The well was discovered when Mr. Ricketson was informed by Floyd Avary that several large pottery tubes had come to light during ditch digging on Quirigua Farm.

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#### A CROWN AND A CORNERSTONE

*Phoenixes and jeweled flowers tremble lightly on this gorgeous crown, believed to have been worn by a Chinese empress almost a thousand years ago. The imperial crown has come to New York, to the Metropolitan Museum of Art, where Alan Priest enthusiastically predicts that "it is, I think, bound to become the cornerstone and foundation of the study of Chinese jewelry, for today it has no known rival." Aside from Korean crowns, it is believed the only complete early crown to have come out of China. Five phoenixes, each dangling a pearl tassel from its beak, are ranged in front. Above is an airy mass of flowers with centers of pearl, uncut ruby, or cat's-eye among which fly birds and butterflies.*