

PSYCHOLOGY

# Government Begins Projects In Psychological Research

1—Forest Fire Setting Seen as a Human Problem  
2—Mental Health Survey Is Begun in Kentucky

**N**OW psychology is to be used to fight the devouring flames of forest fires.

Uncle Sam's fire fighters have tried water and shovel and backfire. They have experimented with chemical extinguishers and smothering gases. They have used airplanes as part of their fire-fighting equipment.

Now they are ready to try a new weapon—they hope to put out some of these fires at their source through an inquiry into the minds of the human beings who set some 155,000 forest fires every year in the United States, including the "firebugs" responsible for 43,000 blazes of deliberate incendiary origin.

A call for cooperation from leading psychologists was issued at the meeting of the American Psychological Association by Dr. John P. Shea, of the Adult Education Society, Kansas City, Mo., who has already been called into consultation by the U. S. Forest Service and who has made a preliminary survey of the problem. On the part of the Forest Service he urged formation of an advisory council of psychologists, sociologists and educators for a massed attack on the problem.

Superstitions, folk ways and traditions, almost akin to fire-worship and tracing their origins back to dim antiquity are responsible for the loss of millions of acres of forests each year in this streamlined age in America.

"Large groups of (*Turn to Page 206*)

**A**T PRESENT filling more hospital beds than all other diseases combined, mental illness has been recognized by the U. S. Public Health Service as a medical-social-economic problem of national scope and demanding coordinated, cooperative attack. Ways in which psychologists can aid in studying underlying causes of mental illness and the social conditions prejudicial to mental health were discussed at the meeting of the American Association of Applied Psychology. The problem is also being presented with a request for cooperation to psychiatrists and sociologists.

At the psychology meeting, Dr. L. M. Rogers, director of field studies in mental hygiene for the United States Public Health Service, outlined the campaign planned by Uncle Sam for a fundamental attack on the social and economic conditions that at present form a hazard for America's mental health.

Lexington, Ky., has been selected by the Public Health Service as a typical American community for intensive study of this problem. At a diagnostic and consultation center there are registered the individual mental health problems of the community. To this center men and women, boys and girls, needing psychological aid, are sent by social agencies, private physicians, teachers, judges, individuals and by officials of the University of Kentucky, which is located at Lexington.

Thus a cross section of the mental health problems of this sample American community is gradually being built up. In connection with the study of these individual cases, a detailed investigation of the social and economic conditions of the community is being made, especially as they bear on individual maladjustment. It is in connection with this sort of investigation that the Public Health Service expects particular aid from the psychologists.

Appointed chairman of a committee of psychologists to cooperate with the U. S. Public Health Service is Dr. J. B. Miner, who as head of the department of psychology and director of the personnel bureau of the University of

Kentucky, is in close touch with the Health Service Mental Hygiene Survey in Lexington.

This survey is not a part of the National Health Survey, which has been assaying America's health resources, but is a separate program designed to promote mental hygiene and dig out the facts regarding the obscure origins of mental illness.

*Science News Letter, September 24, 1938*

ASTRONOMY

## Seven Miles Are Added To Venus' Diameter

**N**EW measurements have added seven miles to the diameter and 12,000,000,000,000,000 tons to the weight of that old gal up in the sky so few of us ever see—Venus.

The American Astronomical Society heard this from Dr. H. R. Morgan and F. P. Scott, of the U. S. Naval Observatory in Washington, D. C., who have just completed redeterminations of the planet's mass from a study of the disturbances it effects through gravitation on the motions of the earth itself.

New calculations, the two astronomers said, indicate that the ratio of its weight to that of the sun is 1 to 407,000 instead of 1 to 408,000, as previously believed. This represents for the planet, whose size is approximately the same as the earth, a weight increase. Naturally, its volume is also increased—by 700,000,000 cubic miles.

They also calculated that the earth is 81.26 times as massive as the moon, from a similar study of the motions of the earth and moon.

*Science News Letter, September 24, 1938*

Georgia peaches are being de-furred by electricity.

Chinese artists can paint on paper made from rice straw, reed, hemp, or mulberry bark, but they like bamboo pulp paper best.

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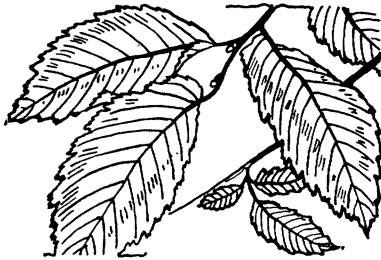
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### Bandaging Before Amputation

IF THE doctor cuts off your thumb (or your nose, or your leg) he bandages you up afterwards. But a tree performs thousands of amputations upon itself every autumn—and puts on the bandages before each operation!

The loss of each leaf is a little am-

putation to the tree. It is not like trimming your nails or cutting your hair. These are dead parts of ourselves, and we can cut them off without pain or loss of blood, just as a tree can have its outer bark cut or knocked off without losing any of its sap.

But a leaf is a living part of the tree itself, with sap-channels and other vital connections running back into the trunk. If it is cut or pulled off there is a loss of sap, just as there is loss of blood if you get a slight cut or scratch.

Loss of one or a few leaves is not serious to the tree, any more than a few scratches are serious to you. But ten thousand, or a hundred thousand, such small wounds could bring serious consequences, not only through sap leakage, but even more seriously, through leaving all those tiny openings through which fungi, bacteria, and other organisms of injury and decay could find their way in.

So when autumn brings the slow decline of the leaves' vital activities and it comes time for their death and the myriad little amputations that part them

from the tree, the event is well prepared for beforehand.

First, there is a gradual withdrawal of the larger part of the valuable food-stuffs in the leaves. The sugars and proteins migrate down the petiole or leaf-stem into the wood of the branches and trunk.

Then the bandage is applied. Across the base of the leaf-stem there forms a double layer of corky cells. They are waterproof, impervious to microbes. They put a tight seal across the place where the petiole is set into the twig.

This little corky barrier is called the absciss layer, which is Latin for "cutting-off layer." And that is exactly what it is. The split between leaf and tree comes at just that point. When the amputation is accomplished the bandage can be found already securely in place.

*Science News Letter, September 24, 1938*

## From Page 204

people burn their forests, regularly—even 'religiously,' declared Dr. Shea. "The motives may be found in a study of group psychology. Studies are needed involving both the habits of individuals and the folk ways of groups—their attitudes, economic needs, customs, mores, superstitions."

The careless smoker and camper are guilty of some of the destruction of our forests by fire, but should not take all the blame, he indicated.

"The problem of forest burning is primarily a problem of human behavior," Dr. Shea said. He urged psychologists to cooperate immediately in its solution.

"It is a race between public education and disaster," he declared. "Ways must be found to change public attitudes and habits."

"Like falling cards knocking down their neighbors, where forests are burned the soil goes down, when the soil goes down the people go down. The paradox is that Americans are doing this to themselves."

*Science News Letter, September 24, 1938*

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