

## PUBLIC HEALTH

# Demand General Practice

THE PUBLIC will demand an about face from the medical profession soon, calling for more general practitioners and fewer specialists, a psychiatrist predicts.

Individuals want their doctor to recognize and respond to the emotional needs of the patient, Dr. Daniel Blain, California Department of Mental Hygiene, reports in *GP* (Aug.), journal of the American Academy of General Practice.

However, today's emphasis is upon more specialization, more and more carving of the patient into definite areas and a tendency to treat only one of these areas. Doctors tend to pay more attention to the patient's X-rays and microscopic evidence than to their reaction to the patient himself or to a general observation of the patient.

Queries to 3,500 national leaders representing virtually all the professions and leaders in America today resulted in rather consistent responses to questions on how they expected doctors to help meet the emotional needs of people.

If their answers are an indication of the national state of mind, the nation is upset, disturbed, irritated, tense and insecure, Dr. Blain says. Here are the ten most popular suggestions that the 3,500 returned:

1. Doctors should have more general knowledge of psychologic medicine and a greater awareness of the prevalence of emotional problems.

2. The "assembly line" approach in many doctors' offices should be reduced.

3. Doctors should become friends and counselors, and become good listeners.

4. More doctors should be in general practice.

5. They should have a sympathetic understanding of the patient as a human being.

6. Doctors should have better training in the social sciences.

7. They should help guide teen-agers and be able to recognize disturbances that lead to delinquency and crime.

8. Doctors should establish better relationship with their patients than can be accomplished in the professional atmosphere of the examining room.

9. They should refer their clients to family service agencies that could act helpfully.

10. Doctors should be aware of financial problems and the anxiety caused by medical costs.

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are believed to be composed of icy mixtures of frozen matter. Even when comets approach relatively close to the sun, they remain extremely cold. Their temperatures then reach only to about 190 degrees below zero Fahrenheit, due to the cooling effect when the comet's volatile gases are released by solar heating, Dr. Bertram Donn of Wayne State University, Detroit, has calculated.

Because comets are so cold throughout their lifetimes, they probably have not undergone any extensive chemical changes since their formation from the original solar nebula. This report appears in *Sky and Telescope* (Aug.).

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## ARCHAEOLOGY

# Date Rocks and Pottery

A DIFFERENT technique for measuring the age of prehistoric rocks, pottery, ceramics and lava flows has been developed by Dr. George C. Kennedy of the University of California, Los Angeles.

The technique, based on heating a previously fired object and measuring its light glow, can now give approximate dates to objects up to 500,000 years old, and the range may eventually be extended to 2,000,000 years.

Dr. Kennedy explains his method by analyzing a piece of lava rock found on the coast of Alaska.

When the rock is heated to a temperature of about 800 degrees Fahrenheit under a sensitive photomultiplier vacuum tube the heat releases a light, called the thermoluminescent glow.

By taking the rock's total glow and mean radioactivity, both easily measured, Dr. Kennedy fixes the number of years since the rock was last heated. Basically, his formula reads: Age of rock equals glow divided by mean radioactivity.

In the example, he found that the Alaska lava must have come from a volcano which erupted 200,000 years ago.

The glow technique gives archaeologists another highly effective tool in addition to the carbon-14 "atomic time clock" method developed by Dr. Willard F. Libby of UCLA, which dates organic matter up to 25,000 years old.

A hobby led 39-year-old Dr. Kennedy,

one of the country's leading experts on volcanoes, to the dating technique.

While investigating volcanoes in Mexico, he became fascinated with the small fired terra cotta figures and effigies buried in Indian graves of pre-Columbian times.

He gradually built up a collection, now considered one of the finest in the United States. Dr. Kennedy began to wonder about the exact ages of his figures, and not finding the information anywhere else, decided to develop his own answers.

During the coming year, Dr. Kennedy will check and refine his technique by measuring pottery from dated sites in Mexico, Greece, and the Near East, and comparing his results with the already established dates.

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## ASTRONOMY

## Sun Has Large Cloud Of Invisible Comets

THE SUN is surrounded by a large cloud of comets, most of them at such vast distances they are invisible from earth.

These comets may have been formed at the same time as other members of the sun's system from the original gaseous cloud, and with further growth might have become asteroids or even planets. Thus studies of comets can provide much insight into the origin of the solar system.

Comets have very low temperatures. They