

radium G and actinium D two independent checks on the age of the earth can be obtained from the radium clock.

The new figure given for the actinium-radium ratio is different from that accepted by the National Research Council Committee: three per cent.

At present the greatest possible age for our planet is believed to be 3,000 million years.

Science News Letter, July 25, 1931

INVENTION

Dripless Pitchers Designed By German Engineers

GERMAN ENGINEERS are developing pitchers that will not drip on the table.

An investigation of household appliances in general is being conducted under the auspices of the German National Engineering Society, Verein Deutscher Ingenieure, a report to the American Standards Association reveals.

The hausfrau's necessity of buying only inexpensive and foolproof articles has prompted engineers to lend a hand. Correct design of home utensils is receiving careful study while engineering is also being applied to such problems as nutrition, food preparation, and heating and lighting.

Science News Letter, July 25, 1931

SPENCER SCIENTIFIC AND EXPERIMENTAL WORKS
4503 Wolf Street, Denver, Colorado
Optical Engineering and Designing
Repairing and Special Work
Assistance in Experimental Work
Instruction in Technical and Scientific Subjects
Astronomical telescopes, reflectors, prisms, gratings, lenses, standard flats, gauges, optical instruments, supplies, patterns, castings, agate work, crystal specialties, testing, and used equipment

PHYSIOLOGY

Automatic Reaction Protected Body Before Mind Developed

BEFORE conscious mind evolved, there was the automatic protective response of the living thing which still operates in the unhappy physiological "kicks" that hay fever-producing pollens give the unfortunate human sufferer.

This new idea of one phase of man's evolution has been advanced in a scientific paper by Dr. Henry Sewall of the University of Colorado, just published in the magazine, *Science*.

His theory concerns the nature of that very perplexing condition called allergy, present in hay fever, for instance.

Some unfortunate people are hypersensitive to the protein material in various plant and tree pollens, so that tiny amounts of these proteins cause the sneezing, sniffing and otherwise distressing condition known as hay fever. Still other people are hypersensitive to the proteins of certain foods, and become startlingly ill after eating such foods. Fish and eggs are often the offenders in these cases.

The protein of disease germs also causes widespread reaction in the bodies of sensitive persons. The germ of tuberculosis is particularly active in this regard. People who are not affected by germ proteins are called immune to that germ or disease. But whether it is hay fever or idiosyncrasy for certain foods or susceptibility to disease, the entire

condition is spoken of by scientists as allergy.

Many theories have been advanced as to the nature and cause of allergy, but none of them has been universally accepted. Dr. Sewall suggests that if allergy is considered as similar to a mental response to danger, research on it may be more fruitful and conclusive.

Allergy, he explains, seems to be the response of the body to an invading enemy. Fear and pain are other responses which we make when danger threatens. These responses, however, are mental.

Response to Enemy

Before men and other animals had progressed to the point of having minds, so that they could feel pain and fear, the organism was merely a community of living cells. Yet this community must have had some way of meeting danger from without, or it would never have survived to develop into the animal and human bodies we know today. Allergy may have been the pre-mental response of these cell-communities to danger, a sort of forerunner, in the evolutionary scale, of fear and pain, Dr. Sewall suggests. It has persisted in the highly developed bodies we now have, so that it forms an auxiliary to fear and pain as a means of protecting us from danger and attacks of invisible enemies.

Science News Letter, July 25, 1931

CONVENIENCE COUPON

for New or Renewal Subscription to *Science News Letter*

Send this coupon to Washington while you are thinking of it.

Science News Letter,
21st and Constitution Avenue,
Washington, D. C.

Please } start renew my subscription to SCIENCE NEWS LETTER. I am enclosing remittance as checked below:

- 2 years, \$7
 1 year, \$5

Name _____

Street Address _____

City and State _____

If this subscription is a renewal, check here

STANDARDS

"Skin" Test Determines Wear Length of Varnishes

SCIENCE has made it possible to tell which finishes, varnishes, and lacquers will wear longest. Under a unique test recently developed at the Bell Telephone Laboratories, disks of wood or metal are given coatings of different kinds of finish and speedily rotated through sand. The disk that emerges from the treatment with the least "skin" rubbed off is rated to have had the best finish.

Science News Letter, July 25, 1931

Homing pigeons were used by the Greeks to carry the names of Olympic victors to various cities of Greece.