

## Cactus Spines Trap Toad

A grim little memento of a tragedy of the desert has been brought back to the University of Pennsylvania by Prof. John W. Harshberger of the botany department, who recently returned from a trip through the West. It consists of the dried and mummified body of a horned toad, entangled among the curved spines of a small cactus. The skin of the luckless little animal was not punctured in any place, but its hind legs were fettered by the fish-hook-shaped thorns, and it had apparently died a slow death of hunger and thirst. The cactus appears to be much tougher than its animal victim, for though it had been torn from its roots for several weeks it showed no signs of distress, and Prof. Harshberger stated that such plants are able to live without a drop of water for several years, lying on a laboratory shelf.

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### EDUCATION

## Stammering Shows Character

Lisping and stammering are no longer thought "cute," and in this day and age they may prove to be fatal economic and social handicaps, in the opinion of Dr. Sarah M. Stinchfield, professor of psychology at Mt. Holyoke College. Prof. Stinchfield has made a four-year's study of the problem of speech defect in college students at Mt. Holyoke and finds in addition that they are symptoms of serious character defects as well.

"Girls with speech defects rarely become leaders in college activities or rise to the top in scholarship or in creative work," Prof. Stinchfield said. "While some of the girls who lisp and stutter do have superior mental endowments, most of them fall into classes whose scholarship is low. They almost never belong to honor societies in college and in the future they are apt to be seriously handicapped in the business or professional worlds."

Unsettled home conditions, domineering parents and feelings of inferiority in the home because of an older brother or sister who is more brilliant are often to blame for emotional instability, Prof. Stinchfield explained. Deep seated feelings of inferiority caused in the home or in school are at the bottom of the inability of children to express themselves easily or to talk normally in many cases, it is believed.

Science News Letter, October 2, 1926

## X-Ray Reveals Portrait

The uncanny power of the X-ray to reveal the mysterious past careers of paintings is proving of great assistance to art critics. The most recent test in which this technique was used to solve an art puzzle was in connection with a portrait belonging to the Metropolitan Museum of Art. The X-ray diagnosis of the painting was made by Alan Burroughs, of Harvard University, who has spent some time experimenting in this field at the Fogg Art Museum of Harvard.

The portrait, which represents a young woman with dark hair, dressed high, and a stiff round lace ruff, was believed to be by Frans Pourbus, because of the treatment of the lace collar and certain other details. The face, however, was recognized as having been painted over in more recent times. Connoisseurs hesitated to recommend removal of the face, fearing lest the original features might be found too badly damaged for restoration, so an X-ray diagnosis was attempted. The result proved that the original portrait, differing considerably in features from the later face, was practically intact, and represented an authentic old painting of good workmanship.

Success of X-rays in detecting art forgeries and in revealing hidden layers of pictures is due mainly to the fact that vegetable colors used by modern painters are transparent to the rays, whereas the mineral colors of the older painters intercept them.

Mr. Burroughs, who is now in Europe making X-ray photographs of masterpieces in the Louvre and Berlin Museums, states that the X-ray shows up the technique of different painters. The clean-cut, sure strokes of the master are very different from the nervous, patchy strokes of the art forger or the mediocre copyist, he finds.

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## Gypsies Speak Hindu Tongue

Modern gypsies, traveling over the country in Fords, speak a tongue their ancestors brought out of India between twelve and fifteen hundred years ago.

Dr. John Sampson, an eminent British philologist, has made a 30-year study of an isolated gypsy tribe in the mountains of Wales, and has found that the tongue they speak is still a real Indian language and not a mere jargon.

The relation of Gypsy languages to each other regardless of the country in which the tribes are found and their resemblance to several of the current vernaculars of central India is well known to scholars. They are all descended from Sanskrit, the oldest of Aryan tongues, but many Gypsy dialects on account of peculiar circumstances are apparently nearer in some respects to the mother tongue than the languages spoken in the region where it had its origin.

Ancestors of the present-day Gypsies wandered away from their home in central India at some time about the beginning of the Christian era into the mountains of Hindu Kush. Several centuries later they were driven out by the advance of the Huns and this invasion evidently started them on their world wide travels.

Authorities have suggested that in the course of their nomadic and rather anti-social life it was to their great advantage to have a language which was not intelligible to their enemies and that this doubtless was a powerful factor in preserving the ancient tongue.

Science News-Letter, October 2, 1926

Pictures were the first form of writing used by primitive man.

Seven new species of birds have recently been found in Yucatan.

## STUDY HELPS FOR SCIENCE CLASSES

(These articles will be found to be especially useful in class work.)

### GENERAL SCIENCE

Anniversaries of Science, p. 15. Articles marked with \* in classifications below.

### BIOLOGY

Fighting Forest Fires,\* p. 5. Cactus Spines Trap Toad, p. 7. Nature Ramblings, p. 11. Food and Prejudice, p. 13.

### CHEMISTRY

Ice Cream from Crude Oil,\* p. 1. Synthetic Rival to Quinine, p. 3. Burning Atomic Hydrogen, p. 11. Light Railway Cars, p. 11.

### PHYSICS

He Knows the Sun,\* p. 1. Smaller than Electron, p. 3. X-Ray Reveals Portrait,\* p. 7. Mars Closest to Earth, p. 9. Burning Atomic Hydrogen, p. 11. Copernicus' Universe, p. 13.

### HYGIENE

Dead Brought to Life,\* p. 3. Heart Hormone Discovered, p. 3. Synthetic Rival to Quinine, p. 3. Stammering Shows Character, p. 7.

(This will fit on a 3 x 5 card.)