

ARCHAEOLOGY

Assyrians Threw Dice To Choose High Official

ONE OF THE DICE used by Assyrians 3,000 years ago in choosing an official for a great national honor has been discovered in the Babylonian Collection of Yale University, Prof. Ferris J. Stephens, acting curator, announced.

The die is a cube of baked clay a little over an inch across. It is labeled the "lot of Iahai." Historians recognize Iahai as a high official of Shalmaneser III, King of Assyria in the ninth century B.C. Iahai was one of the dignitaries whose name was put into the hat, so to speak, in choosing the "eponym official" for one year. The lucky man would have lasting fame, because the next year would be officially known by his name.

The name of a missing king of Babylonia has been restored to royal history through discovery of a brick from walls of a temple in Nippur. The brick, acquired by the Babylonian Collection of Yale recently, reveals the impressive sounding name of Hashmargalshu, who lived about 1550 B.C. Although he tried to take care of his historic immortality by setting up a memorial tablet in the temple of a god, this King Hashmargalshu had the perverse bad fortune of being the only king out of 36 in his dynasty to be forgotten—until now.

A story of rivalry between two queens has also come to light through deciphering of writing on a stone pillar. The inscription tells of a queen Shalabashtashu who calls herself the "beloved

wife of Rim-Sin," Prof. Stephens said.

"We knew already the name of another wife of this king," he said, "who also called herself 'the beloved wife of Rim-Sin,' and who dedicated a memorial in honor of her husband.

"Apparently this new inscription shows that Shalabashtashu was trying to outdo the other wife, for she says that the structure which she has caused to be erected is something 'which up to that time no woman had ever done.'"

Science News Letter, April 28, 1934

ARCHAEOLOGY

Architects Discover Danger at Temple

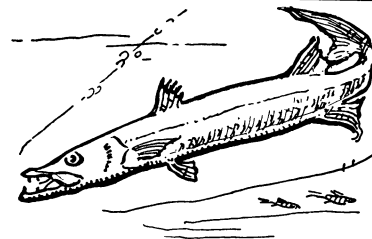
THE LITTLE temple of Nike, or Victory, one of the architectural gems on the Acropolis, is in danger of caving in. Architects, investigating the foundations, reported the weakness of the structure.

As a result of the report, arrangements are now being made to take down the temple and re-build the base on which it stands. The temple will then be set up again on the new, firm foundation. The project is expected to require a year. Temporary removal of the building is welcomed by archaeologists, who see a chance to learn whether a still more ancient structure stood on the site of the Temple of Victory.

Athenians came to this temple to worship Athena as Goddess of Victory. After the Athenians defeated the Persians, it was said, they desired to bind Victory to themselves, and so they cut off her wings to make flight impossible. The Greek writer Pausanias called the temple that of Wingless Victory.

The Nike temple was built about 410 B.C. and stood until 1687, when it was damaged in the bombardment of Athens by the Venetians. The Turks at that time took the temple materials to use in building a bastion. About a century ago, German and Greek architects attempted to restore the temple to its original delicate beauty, but lack of experience in this type of problem resulted in a reconstruction lacking in permanence. Violent storms or even slight earthquakes threaten the edifice.

Science News Letter, April 28, 1934



The Big, Bad Barracuda

WHEN President Roosevelt cracked about coming back from his vacation a "tough guy," having "learned all kinds of lessons from barracuda and sharks," he singled out about the most appropriate pair of submarine professors that could have been selected by one whose job it is to battle the big fish in the rough waters of our present economic turmoil. Anybody who can get the better of those spike-toothed "hard babies" off the Florida keys need not hesitate to challenge their human counterparts in Wall Street or the Wheat Pit.

The shark's reputation is already thoroughly and widely established. He is popularly looked upon as the epitome of all that is insatiably voracious, cruelly cold-blooded, utterly indifferent to the rights of anything else in the sea—even other sharks. He is rugged individualism to the ruthless limit.

But the barracuda surpasses even the shark. His voraciousness, his cruelty, his rapacity are at least equal to the shark's, and he adds to these two qualities that make him even more formidable. He is of a higher evolutionary status than the shark, and is therefore more intelligent; and he is much readier to attack.

His truculence is perhaps the most outstanding thing about him. A shark will seldom attack a man under water, but a barracuda is apt to rip at him entirely unprovoked. Dr. Paul Bartsch, Smithsonian marine biologist, who often puts on a diving helmet and walks about on the sea bottom to get better acquainted with things down there and to take photographs, states that he has always found the shark a gentleman, but confesses to nervousness whenever a barracuda is about.

The barracuda is a big fish, though nowhere nearly the size of a man-eating shark. The latter ranges from twen-

▼ THE GREATEST STAR CATALOGUE

**R
A
D
I
O**

an address by

Prof. Samuel G. Barton

Of the Department of Astronomy, University of Pennsylvania

Wednesday, May 2, at 3:40 p. m., Eastern Standard Time, over Stations of the Columbia Broadcasting System. Each week a prominent scientist speaks over the Columbia System under the auspices of Science Service.

ty feet up, while the biggest barracuda is seldom more than a six-footer. In general appearance the barracuda resembles the muskallunge of freshwater lakes in the North, and his pike-like manners correspond well to his greater size. Curiously enough, though, the barracuda is not very closely related to the fierce freshwater cousins, muskallunge and pike, but has as his next of kin the rather good-natured, mild-mannered mullets, which also abound off the coast of Florida.

Science News Letter, April 28, 1934

SEISMOLOGY

Earthquakes of the Week

NORTHERN VERMONT experienced a local earthquake of 20 seconds duration Saturday night, April 14, 9:58 p. m., E.S.T. Prof. E. C. Jacobs, University of Vermont seismologist, rated it as a feeble shock of intensity four on the Rossi-Forrel scale. It was too near to develop characteristic waves on the seismographic record.

The strong earthquake that was recorded on the seismographs of the world on Sunday the 15th was centered near the island of Mindanao in the Philippine Islands, the U. S. Coast and Geodetic Survey has determined, using seismological reports telegraphed to Science Service. Strong shocks have occurred in this area before. The longitude and latitude of the approximate epicenter was 8 degrees North and 127 degrees East. The time of origin was 5:15½ p. m. E.S.T.

Seismologic stations reporting the Philippine quake were: Meteorological Observatory, Victoria, B. C.; Georgetown University, Washington, D. C.; Fordham University, New York City; U. S. Coast and Geodetic Survey stations at Honolulu, Tucson, Ariz., and Chicago.

Science News Letter, April 28, 1934

A New Volume in the
NEW WORLD OF SCIENCE SERIES
Edited by Watson Davis

THE STORY OF ENERGY

By MORTON MOTT-SMITH

An authoritative and entertaining volume describing how man has discovered, harnessed and applied energy from the days of Watt down to the aeroplane, together with the new concepts of the universe brought about by man's increasing knowledge of energy. Illustrated—\$2.00.

D. APPLETON-CENTURY CO.
35 W. 32nd St., New York

PSYCHOLOGY

Loud Sounds Seem Lower In Pitch Than Softer Tones

THE INTENSITY of a sound and its frequency are quite distinct physical attributes, but the corresponding psychological attributes of loudness and pitch are not so independent; a loud tone sounds lower in pitch than a high one, and a low tone sounds unduly loud, it was indicated by a report to the National Academy of Sciences delivered at the annual meeting by Dr. Harvey Fletcher, of the Bell Telephone Laboratories, New York City.

A group of ordinary listeners who took part in the reported experiment found that a 50-cycle tone with an intensity which is 10,000 times that of a just barely audible sound appears just as loud as a 1,000 cycle tone with an intensity 1,000,000,000 times that of the threshold.

The apparent pitch of a tone also de-

pends upon its intensity, it was found. The pitch of a 200-cycle tone was heard as being as much as a quarter of an octave lower at the very high intensities than at the low intensities. However, when the tones were of very high frequencies, near 2,000 or 3,000 cycles, such changes of apparent pitch with intensity were not observed.

When ten tones are sounded together, is the resulting sound ten times as loud as each one alone? Speaking from the point of view of physics, the answer is yes. But speaking from the point of view of psychology, it all depends upon the pitch of the component tones. The loudness of one such complex tone with frequencies which are harmonics of 500 cycles per second was found to be one thousand times louder than one of the components instead of only ten times.

Science News Letter, April 28, 1934

•First Glances at New Books

Additional Reviews
On Page 271

Mining—Economics

THE ECONOMICS OF MINING—Theodore Jesse Hoover—*Stanford Univ. Press*, 547 p., \$6. Mining is not a mere matter of geology and metallurgy. It involves dollars and cents as well. This book by Stanford University's engineering dean deals with valuation, organization and management of non-ferrous mines. Addressed primarily to young mining engineers, the book seeks to answer: How may the metal mining industry get the most for its money in the long run?

Science News Letter, April 28, 1934

Biology

ADAPTATION ECOLOGIE ET BIOCOENOTIQUE—Marcel Prenant—*Hermann et Cie. (Paris)*, 60 p., 15 fr.

Science News Letter, April 28, 1934

Geology

METAMORPHISM—Alfred Harker—*Dutton*, 360 p., \$5.90. Dr. Harker approaches metamorphism from the dynamic point of view; he considers the process first, the products afterwards. His treatment of the process is two-fold: first thermal, then regional metamorphism. This book will be highly valuable to more advanced students in geol-

ogy, who will also find the very numerous diagrams, drawn from microscope studies, of great assistance in rendering unmistakable the clear descriptions in the text.

Science News Letter, April 28, 1934

Biology

DYSHARMONIES ET DISCONTINUITES DANS LA CROISSANCE—Georges Tessier—*Hermann et Cie. (Paris)*, 39 p., 10 fr.

Science News Letter, April 28, 1934

Biology

LES PAGURES OU BERNARDS L'ERMITE (UN EXEMPLE D'ADAPTATION)—Charles Pérez—*Hermann et Cie. (Paris)*, 33 p., 9 fr.

Science News Letter, April 28, 1934

Biology

POLARISATION ET DEPolarISATION CELLULAIRES—M. Dubuisson—*Hermann et Cie. (Paris)*, 47 p., 12 fr.

Science News Letter, April 28, 1934

Biology

REPRODUCTION SEXUALITE HEREDITE—Georges Bohn—*Hermann et Cie. (Paris)*, 89 p., 15 fr.

Science News Letter, April 28, 1934