

# Ur Yields Old Gods and Royal Tombs

Archaeology

The body of a baby girl, adorned with a little gold headdress almost exactly like that worn by Queen Shub-ad of Ur, is one of the new discoveries in the royal graves at Ur of the Chaldees, according to a report just received from C. Leonard Woolley, director of the joint expedition of the University of Pennsylvania Museum and the British Museum.

This 5,000-year-old grave, which Mr. Woolley suggests might be called the grave of the baby princess, contained also a set of miniature silver dishes, including a tumbler and bowls. The royal headdress, which attracted much attention last season when discovered with the remains of the Queen, is a delicate and elaborate structure of gold ribbon, gold leaves, and flowers with pointed petals.

After two months' excavation at the ancient cemetery this season, remarkable finds have already been made, and the investigations have just reached the deep-buried layer of earth where, according to last year's experience, the most important tombs should lie.

The director reports that he is now working at a sector of the cemetery hitherto untouched by archaeologists, and although more than 200 graves have already been found there, only a few places have been probed to the depth at which royal tombs may be expected.

**Noiseless Airplanes—Cont.**  
a constant whistle will be present. This is being reduced by cutting down the number of exposed wires, supports and other equipment attached to the fuselage.

When early slumbers are broken or the peace of an evening shattered, even aviation enthusiasts have visions of a terrible future when the whole heavens will pulsate to the whirling roar of many motored planes.

Nevertheless, the time is almost at hand when airplane engines will be as quiet as automobile power plants, and airplane passengers can expect to ride in enclosed cabins as quiet and comfortable as railroad cars within a year or two. For the man on the ground, aviation engineering does not promise the complete elimination but only the reduction of the present noise. (*Turn to next page*)



*COPPER STATUE, representing a human face, possibly the face of a god, with animal horns, found in the latest excavations at Ur*

From discoveries that have been made, the expedition staff has formed the theory that a king's burial in Ur would be in a subterranean building at the bottom of a deep vertical shaft. After the king was buried there and his slaughtered attendants were laid with him, the shaft would be filled in at intervals with votive offerings up to a certain point. There a chamber would be constructed to receive the last offerings and over this more earth, and finally, possibly as a superstructure, there would be a funerary chapel.

**"Our Father"—65 Per Cent**

Education

Tennessee college students preparing to be teachers are well acquainted with the words of the Lord's Prayer, but they understand only about two-thirds of this famous classic which they will repeat daily in their schoolrooms. This is shown by an educational experiment with 540 students, conducted by Lester R. Wheeler, of the East Tennessee State Teachers College, and reported to *School and Society*.

Ninety-six per cent. of the future school teachers wrote the words of the Lord's Prayer from memory without leaving out a word. When asked to explain the fifteen different thought units, the average student gave acceptable interpretations of only 65 per cent. of the ideas. Some of the units were found to be much easier to understand than (*Turn to next page*)

The tomb of a woman, wearing a golden headdress and other jewelry, has been discovered, the circumstances indicating elaborate burial rites. Four men-servants or soldiers and a serving maid were buried with this lady of Ur. Outside the stone blocking of the door were set clay pots of food and the carcass of a sheep. In the filling-in of the shaft leading down to the tomb, the excavators found tier above tier of food vessels and meat offerings and human skeletons.

"Another most interesting discovery was that of a harp," Mr. Woolley wrote. "The woodwork of the instrument had decayed and disappeared, but luckily a workman noticed the holes which it had left in the soil, and by filling these with plaster of paris we obtained a complete cast of the harp's body, to which was attached the bull's head of copper inlaid with lapis lazuli. The most astonishing thing was the fact that when the earth was carefully cut away to expose the cast there were found surviving as lines of white fibrous powder the ten cat-gut strings of the harp.

"Prominent among our other finds are a copper statue-head, possibly of a god, having a human face and the horns and ears of a bull, and a painted clay pot, which is the first complete one of its kind found at Ur."

*Science News-Letter, January 19, 1929*

**Good as Neon Lights**

Physics

Red neon lights, suggested as beacons for airports, are not any better able to penetrate fog, as its advocates have claimed, than ordinary incandescent lamps, equipped with colored screens. This was announced by Dr. Lyman J. Briggs, of the U. S. Bureau of Standards. Neon lights are familiar to everyone because they are used in the newest tubular advertising signs.

Tests carried out by Bureau of Standards scientists were made under actual field conditions. The neon lamp was compared with incandescent lamps so arranged that the color, size and shape of each lamp appeared identical to the aviator.

"The test showed that there is no real difference in the fog-penetrating quality of the light from the two sources," said Dr. (*Turn to next page*)

# Misapplied Chemistry

ARTHUR D. LITTLE, in *The Handwriting on the Wall* (Little, Brown):

It would be a pleasure to rehearse the triumphs of applied chemistry and to demonstrate its intimate relation to agriculture and to industry of every sort. I should like to make you realize how deeply you are indebted to Faraday and Pasteur, to Burton, Nobel, and Solvay, and to those many other men of genius who, in cooperation with the rank and file of laboratory workers, have conferred upon you countless benefits. For the moment, however, I have assumed the functions of the Devil's Advocate and in that capacity must direct your attention to chemistry when misapplied.

Misapplied chemistry is the chemistry of the ignorant, the charlatan, and the swindler. It flourished long before the practices of Egyptian priests led the Arabs to adopt for it the name Al Chemy, the Egyptian, or Black Art, and it remains to-day an active and sinister offshoot of the science.

There are, of course, instances without number where chemistry has been misapplied without intention, and these we may view with charity. We may even be grateful to that chemical student who reported that hydrofluoric acid "itches" glass, though it is obviously a pity that glass should itch when it is so hard to scratch. We may sympathize

## Good as Neon—*Cont'd*

Briggs. "In beacons of moderate candlepower any advantages due to the distinctive color of a neon lamp may be obtained more conveniently and simply and more reliably by means of an incandescent filament lamp equipped with a suitable color screen."

As a matter of fact, putting a red filter in front of a light does not increase its fog-penetrating power, he said. Tests were also made with incandescent lamps, one of which was covered with a red screen. The lamps were both of the same power. In every case it was found that the uncovered light could be seen through a greater thickness of fog.

*Science News-Letter, January 19, 1929*

with that other student who defined caustic soda as "a cooling summer drink," and we need not condemn too harshly the druggist who gave the very little girl aspirin when what she asked for was ice cream. The little girl probably said quite enough herself. We need not be so tolerant with the manufacturer who misbrands his goods or who sells water at high prices. Some years ago we analyzed a leather stain for which a Jewish client was paying eighty-five cents a gallon. It proved to be water containing a little gum tragacanth colored with aniline dye. When our client read the certificate he remarked, "Now I see where the Gentiles get the money that we get from the Gentiles."

The late Professor Brush, the distinguished mineralogist of Yale, delighted in the story of the young farmer, who knocked timidly at his office door one day. In response to the professor's invitation to enter, the farmer's head appeared at the partly opened door, and an anxious voice inquired, "Are you alone?" "Yes, yes," said the professor, "come in." The farmer entered, closed the door carefully behind him, seated himself, and from the depths of a carpetbag drew forth a large lump of yellow mineral, which he passed to the professor. "What do you think of that?" he said. Professor Brush examined it for a moment

## "Our Father"—*Cont'd*

others. Only 44 per cent. could explain "Our Father," while Thy kingdom come" proved to be the most difficult of all, and was answered by only 43 per cent. The easiest passages were "and forgive us our debts" and "lead us not into temptation."

The investigation indicates "that the school and church are failing in teaching the student the wider and more subtle meaning of this well-known passage," Mr. Wheeler reports. "If college students understand only about two-thirds of the prayer the ignorance of the average child will probably be more appalling than this study indicates."

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and replied, "I never saw a finer specimen of pyrite." "Pyrite!" said the young man, "What do you mean? Ain't that gold?" "No," said Professor Brush. "It is only a compound of iron and sulphur." The farmer sank into his chair, then pulled himself together, and said weekly, "My God! Professor, I've just married twenty acres of it."

Our own experience with the prize hens concerned a local example of misapplied chemistry. The award of the blue ribbon to a fine coop of Rhode Island reds had been contested by a defeated exhibitor on the ground that the hens were dyed. We were waited upon by a committee, who requested that we determine whether the hens were in fact better than they should be, since it appeared that hens are not permitted the cosmetic aids so freely utilized in other feminine circles. Never having analyzed a hen, we stipulated that the committee should supply one which, like Cæsar's wife, was above suspicion. This they did, and from her feathers we were unable to extract a trace of dye. From those of the beribboned birds, however, sufficient color was readily removed to dye deeply large skeins of worsted.

*Science News-Letter, January 19, 1929*

Palestine's Jewish population is growing rapidly.

## Noiseless Airplanes—*Cont.*

With the more vital problems of aviation well on the road to solution, it is quite possible that inventive genius will solve the problem of propeller noise, or possibly change the whole principle of airplane propulsion. It is not beyond the realm of imagination that the present generation may live to see the day when airplanes will slip noiselessly through the air on missions of pleasure and commerce, or in time of war on trips of deadly destruction.

*Science News-Letter, January 19, 1929*

Virginia has produced more scientists than any other state in the South.

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