

ARCHAEOLOGY

Earliest Gilgamesh Epic

Cuneiform writing almost 4,000 years old, deciphered at Pennsylvania museum, is oldest known record of man's longing for immortality.

OLDEST KNOWN written record of man's longing for immortality, a hero's poem or hymn of petition to the great god Utu on behalf of a dead friend, has just been deciphered out of its archaic cuneiform script by Samuel Noah Kramer, associate curator of the University of Pennsylvania Museum. The text and comments on its significance will be published in the forthcoming issue of the *Journal of the American Oriental Society*.

The hero who pleads with the god to grant his friend life everlasting is Gilgamesh, familiar figure in Babylonian mythology. For 70 years, scholars have been piecing together the epic of this great shadowy figure, whose career seems to have been a combination of the stories of Hercules, Samson, Tannhäuser and Parsifal. Most popularized portion of this epic has been the pre-Biblical account of the Deluge.

Now Mr. Kramer has found that there is an even earlier Gilgamesh epic. It was composed by the Sumerians, who lived in the Tigris-Euphrates valley before the Babylonians came and who passed on much of their culture and literature to their alien successors.

For several years, Mr. Kramer has been working over the difficult, often almost unreadable, inscribed clay tablets found buried since about 2000 B.C. in the ruins of Sumerian cities. By piecing various texts together, he has been able to obtain a picture of this pre-Babylonian Gilgamesh, who he finds is very much like his later incarnation, although the narrative of his adventures and exploits is not as consistent and well connected as it is in the Babylonian version.

Gilgamesh's petition that immortality be granted to his dead friend is given in full translation by Mr. Kramer. With a few gaps and uncertain spots rendered inevitable by defects and difficulties in the obscure cuneiform text, it reads:

The lord, towards the mountain of the living man set his mind,
The lord Gilgamesh, towards the mountain of the living man set his mind,
He says to Enkidu, his servant:
"Oh Enkidu . . .
I would enter the mountain, I would set up my name,

In its places where the names (of the gods) have been set up, I would set up my name,
In its places where the names have not been set up, I would set up the names of the gods."

His servant Enkidu answers:
"Oh my king, if thou wouldst enter the mountain,

Inform thou Utu (the sun-god),
Inform Utu, the hero Utu,
Inform Utu, the builder of the mountain,
The hero Utu, the builder of the mountain of the cedar forest."

Gilgamesh took an all-white kid,
A dappled kid as offering he pressed to his breast,
In his hand he placed the silver staff . . .
He says to the heavenly Utu:

"I would enter the mountain, be thou my ally
I would enter the mountain of the cedar forest,
be thou my ally."

Heavenly Utu answers:
"Although thou art . . . for the young, but what wouldst thou in the mountain?"

Gilgamesh answers the heavenly Utu:
Oh Utu, I would speak a word to thee, hear my word,

I would utter a plea to thee, open thy ear.
In my city man has died, oppressed is the heart,
Man has perished, heavy is the heart,
I went up to the wall,
I saw the dead bodies floating on the . . . river,
Now let me not thus; so be it.
Man, the tallest, cannot reach to heaven,
Man, the widest, cannot cover the earth.
I would enter the mountain, I would set up my name,

In its places where the names (of the gods) have been set up I would set up my name,
In its places where the names have not been set up, I would set up the names of the gods."

Utu accepted his tears as an offering,
Like a kindly man, he showed mercy to him.

Science News Letter, February 26, 1944

ENGINEERING

New Electric Motor Has Speed of 120,000 R.P.M.

➤ A RECORD-BREAKING electric motor, which operates at 120,000 revolutions a minute, has been developed, built and thoroughly tested by the General Electric Company. This new three-horse-power motor weighs only seven pounds and is so small that it will fit into the palm of a man's hand.

The motor is water-cooled and is equipped with oil-mist lubricating bearings. Tests, including a continuous run of eight hours, have proven its perfection, it is claimed.

The ordinary three-horsepower electric motor weighs 105 pounds. The speed of rotation of this new motor is 65 times faster than the conventional motor used in home washing machines

and refrigerators. Motors of this type will be used for the grinding and drilling of essential parts of airplanes and other war equipment and will not be available for general use until after the war.

"It's hard to realize speeds of 2,000 revolutions per second in a motor," D. H. Ware, motor engineer of the company pointed out. "However, if the wheels of an automobile could be made to turn at the same speed, the auto would move at the rate of 10,000 miles per hour, or 165 miles per minute. This is about 14 times the speed of sound."

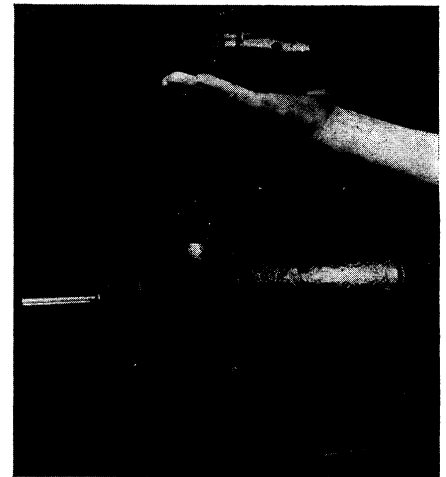
Science News Letter, February 26, 1944

INVENTION

New Type Bomb Rack Gives Better Control Over Load

➤ A NEW TYPE bomb rack for warplanes is the subject of patent No. 2,342,022, granted to C. G. Trimbach of Eggertsville, N. Y., and assigned to the Curtiss-Wright Corporation. It is designed to give better control over the bomb load, in a number of different ways.

The rack is recessed into the underside of the plane wing, though not necessarily built solidly into it. The inventor prefers a form that can, if necessary,



POCKET-SIZED—This midget motor, but one-fifteenth the size and weight of the average three-horse-power motor, operates at 120,000 revolutions per minute, or 65 times the speed of the motor of a household washing machine. It has been developed by the General Electric Co. for use in grinding and drilling airplane parts and other war equipment.

be jettisoned, whether still loaded or empty. It can even be dumped with its bombs all set to "safe," when preparing to make an emergency landing on a friendly airfield. It is also removable for reloading, so that a plane can be "bombed up" more or less like loading a clip of cartridges into a rifle except for the larger scale of the operation.

Primary feature, however, is the method of delivering the bombs in nor-

mal runs over a target. The bombs are loaded on an endless chain conveyor which is moved by a motor under control of pilot or bombardier. They are released one by one as they are brought in line with a bomb chute. The operator can drop them singly, or he can deliver "sticks" or strings in any degree of spacing he desires, by regulating the speed of the motor.

Science News Letter, February 26, 1944

gas near the muzzle it has it only a short distance in front of the chamber. The piston has a short stroke, and does not necessarily move parallel with the bore; various alternative means are shown for applying its power to a solid rod-like piece of metal that thrusts backward into the stock, which the inventor calls an inertia member. This unlocks and opens the breech, and at the same time compresses a long helical spring which furnishes the energy for the return stroke that inserts a new cartridge and closes the breech.

Science News Letter, February 26, 1944

SOCIOLOGY

Race Prejudice

Is not inevitable and can be eliminated from society. Tendencies which inevitably lead to biased racial feelings could be redirected or suppressed.

➤ RACIAL PREJUDICE is "definitely" not inevitable and can be eradicated from a society, Dr. Scudder Mekeel, of the University of Wisconsin and the Julius Rosenwald Fund, declared to the American Orthopsychiatric Association meeting in Chicago.

A comparison of human societies, he pointed out, shows that not only are individuals modified for getting along in a particular society but that such modification often entails the controlling or almost complete repression of many human tendencies and needs.

Prejudice arises from certain tendencies, he explained. First of all, there is a definite tendency for groups to feel superior to others. At the same time, there is a tendency for aggressions and anxieties to be projected on these "out-groups." Sometimes these are directed against persons within the society as scapegoats.

"However," Dr. Mekeel stated, "it is possible for such tendencies to be redirected or suppressed by society."

He cited Hawaii, Brazil and Russia as societies where racial prejudice is at a minimum.

In our own society and culture, the most significant thing about race prejudice is that it is socially sanctioned and learned. It is a "ready-made and culturally normal outlet for at least mild forms of hostility, fear and superiority."

Science News Letter, February 26, 1944

Remedy for Race Riots

➤ A METHOD for overcoming prejudice of the intense kind that led to zoot-suit disturbances and race riots in Los Angeles last year was proposed by

Dr. Dorothy W. Baruch of that city. Providing better jobs, better housing and better recreational facilities and education of the groups involved are not enough to remedy the situation, she declared.

The terrific hostility born of long periods of frustration and fear cannot so easily be cured. Frequently, as orthopsychiatrists have learned, people cannot use what is provided, whether it be information and education, or a new situation. Actual psychiatric treatment is required.

Both the majority groups and the minority groups, she said, must be helped to do three things: first, to face the fact that they have hostility in them; second, to reduce its violence; third, to handle knowingly left-over hostility that cannot be drained.

From such treatment will come a lessening of guilt, a growth in feelings of personal strength and worth, a lessening of isolation and a growth in feelings of mutuality and belonging. As a result, and only by such methods, Dr. Baruch believes, various peoples could live together safe from unreasoning attack and free to work together toward the building of a new kind of world.

Science News Letter, February 26, 1944

ORDNANCE

New Semi-Automatic Rifle Has Simple Construction

➤ A SEMI-AUTOMATIC rifle of simplified construction, on which T. F. Horan of New Haven, Conn., received patent No. 2,341,780, is gas-operated, like the Army's model M-1, but instead of having the take-off for the powder

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