

changing mercury into gold, he said, is still unknown, and consequently success in a repetition of his experiments is possible only by chance. He intends to publish his work in full at an early date, and in the meantime he will exchange his apparatus with other experimenters, to eliminate possible sources of errors due to differences in construction.

Prof. Miethe stated that in forty-two experiments the output of gold was constantly proportional to the amperage of the current and to the time of the process. When repeated with all conditions identical but without turning on the current the result was negative.

The purification of mercury for the experiment is a very difficult distillation, probably involving a complicated atomic process not yet well understood. Much further research on this detail alone is needed, Prof. Miethe said. He stressed also the dangers involved by the extremely poisonous nature of the mercury vapors.

DATES SIEGE OF TROY BY ECLIPSE OF SUN

The Trojan War, sung by Homer in his Iliad, began in 1197 B. C., and the famous wooden horse got through the walls, opening the way for the destruction of the city, in 1187 B. C. Ulysses got home to Ithaca after his long wanderings ten years after that, and at 8:30 on the evening of April 16, 1177 B. C., he sent an arrow through the last of the suitors who had been pestering his faithful wife Penelope.

This exact dating of events that happened three thousand years ago has been made possible by the calculations of an astronomer, Dr. Schoch of Heidelberg. Using the regular astronomical methods for ascertaining the dates of eclipses, and making allowance for the retardation of the earth since the time of Homer by the brake-like action of the oceanic tides, Dr. Schoch used as his basic date the total eclipse of the sun recorded in the twentieth book of the Odyssey, where Theoclymenus addresses Penelope's suitors as follows:-

"Ah, unfortunate men, what horror is that that has
happened?
Shrouded in night are faces and heads. To the hands it
descendeth.
See, too, crowded with ghosts is the porch and crowded the
courtyard.....
Withered and gone is the sun and the poisonous mist is
arising."

The view that these lines and those following described a total eclipse was taken by Plutarch and by medieval commentators.

Dr. Schoch examined the century within which the siege of Troy and the return of Ulysses are said to have fallen, namely 1240-1140 B. C. He concludes that the total solar eclipse of 1177 B. C. can alone be taken into consideration. In this year, on April 16, the sun was totally eclipsed in the island of Ithaca at 11:41 a.m. local mean time. He reconstructs the events of that day, as recounted in the Odyssey, and

on the assumption that this eclipse really was historical, restores the chronology of the Trojan war and subsequent events as follows:-

Trojan War	B. C.	1197-1187
Fall of Troy	"	1187
Wanderings of Ulysses	"	1187-1177
Landing on Scheria	"	1177 beginning of April
Landing on Ithaca	"	1177 April 12
Slaughter of Suitors	"	1177 April 16 6 to 8:30 p,m,

The fact that the eclipse appears, from the calculation, to have been total on Ithaca, is an important piece of evidence. The path of totality over the earth is an extremely narrow one at all times, and it is highly improbable that there has been a total eclipse in that particular spot since the time of Ulysses.

Dr. Schoch's table supplements from a different angle the attempts, hitherto entirely archaeological, to fix the date of the Trojan war. Some few years ago, several large clay tablets were dug up at Boghaz-Keui in Asia Minor. They were inscribed in cuneiform characters, such as were used by the Babylonians and the Assyrians, but were in a hitherto unknown language, almost certainly Hittite. Herr Forrer, a Swiss philologist, who claims to have deciphered some of them, states that one describes an invasion of Asia Minor during the reign of a Hittite king, who is known to have occupied the throne about fifty years before the traditional date of the Siege of Troy. Until Dr. Schoch made his calculations, this was thought to have taken place about 1172 B. C. The invaders were described as Achaeans, commanded by Atreus, who was the father of Agamemnon and Menelaus. From the Boghaz-Keui tablets, if Forrer deciphered them correctly, it would appear that the Greeks were planning to seize various districts in Asia Minor, and that Helen was a mere pretext for the war with Troy.

NEW PREHISTORIC FOOTPRINTS BROUGHT FROM GRAND CANYON

New finds of footprints of reptiles left in soft sand at least 25,000,000 years ago have just been made in sandstone 1,800 feet down from the rim of the Grand Canyon and have been brought to Washington. This is the greatest depth in the canyon at which such prints have been found.

The prehistoric tracks were found by Charles W. Gilmore, curator of vertebrate paleontology of the National Museum, and will be added to the government's fine collection of footprints of the Permian Age. Mr. Gilmore, who has just returned to Washington, spent three weeks in Arizona, and obtained from the canyon a ton and a half of material containing fossil tracks of reptiles and prints of plants.

These ancient prints can be used as evidence to assist geologists in determining more exactly the age of the beds of rock in which they were found, said Mr. Gilmore.

"The fact that the prints were found 1,800 feet from the top of the canyon means that after these queer, long extinct reptiles impressed their feet in what was then moist sand, almost 2,000 feet of rock material was slowly piled up in successive strata above the prints," he explained. "And this does not take into account many