

## KENTUCKY STUDENTS SAY EVOLUTION HELPED FAITH

Evolution, though the target of the Fundamentalists of Kentucky who for several years have tried to get it banned by legislation similar to that of Tennessee, does not harm the religion of university students but rather helps it, if the testimony of the students themselves be accepted. Dr. Austin R. Middleton, of the University of Louisville, stated in his address as retiring president of the Kentucky Academy of Science, that he had questioned his classes concerning the possible effects of the doctrine. Of 132 essays on the subject written by the students, only five held that evolution was not true. Of the remainder eighty writers stated that their religious beliefs had been strengthened, and not one student, even among the five opposed to evolution, claimed that the teaching of the theory tended to weaken faith.

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## GOLD TRANSMUTATION CLAIMS MAKE GERMAN CHEMISTS ROW

Gold from mercury - was it really made by Prof. A. Miethe in his electric tube?

This question, which has been agitating the scientific world for the past two years, was thrashed out at a hot session of the German Chemical Society at Berlin, crowded with dramatic situations and personal clashes of the debating scientists.

The opponents of the claims of Prof. A. Miethe and Dr. Hantaro Nagaoka, who independently worked out the process by which they claim to have produced gold from a baser metal, massed an attack against the German and Japanese scientists, and were met by the stout defense of their supporters.

Prof. E. Riensenfeld of the University of Berlin declared that distillation of mercury to absolute purity was impossible - that there would always be traces of gold present to vitiate the results of the experiment. Prof. E. Tiede of the same University presented a flat counter-claim, stating that he had obtained pure mercury, gold-free, without difficulty; but he added that when he repeated Prof. Miethe's experiment the results were wholly negative.

Prof. Fritz Haber, famous for his contribution to the solution of the fixed nitrogen problem, outlined the extreme difficulty of obtaining absolutely pure mercury, and of keeping it pure throughout the long course of an experiment. The presence of gold even at a distance, as in the operator's spectacle-frames or in metal compounds in an adjoining room, he said, might spoil the experiment through being drawn in ultramicroscopic quantities into the electric current, by an effect like that of the cathode rays.

Prof. E. Duhme stated that mercury always contains traces of gold, but that these may not be capable of detection except after considerable ageing of the mercury by standing, or even by being subjected to an electric current.

The end of the session was enlivened by a personal clash between Prof. Haber and Dr. H. Stammreich, Prof. Miethe's assistant.

Prof. Miethe in an interview with a representative of Science Service stated he sees no present reason for changing his views. The process really active in

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.

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#### 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