

## ASTRONOMY

# April 9, 30 A. D. First Easter, German Investigator Declares

**T**HE EXACT date of the first Good Friday was April 7 in the year 30 A. D., and the first Easter Sunday was on April 9.

This is the claim of Prof. D. Oswald Gerhardt of Berlin, based on astronomical calculations and historical research, as set forth in the German scientific magazine *Forschungen und Fortschritte*.

The first step in Prof. Gerhardt's chain of evidence is the date given for the baptism of Jesus by his cousin John, in the Gospel according to St. Luke. This states that this event, marking the beginning of Jesus' public life, occurred in the "fifteenth year of the reign of Tiberius Caesar." Tiberius became emperor on the death of Augustus, in 14 A. D. This would put his fifteenth year in 29 A. D. or possibly in 28.

There is, however, one possible source of error. Two years before his accession as emperor, Tiberius was accorded imperial honors by proclamation of Augustus. Coins were struck with his image on them, the highest privilege of an emperor, as early as the year 12 A. D. Therefore there is a chance that his "reign" may have been counted as beginning two years before the death of Augustus. This would set the possible date of the beginning of Jesus' public ministry as early as 26 A. D.

Support for this earlier date is found in the statement in the second chapter of the Gospel according to St. John, that after His baptism Jesus made a visit to Jerusalem, the Temple being then 46 years from its foundation. Since the date of the beginning of the Temple is known from independent sources, this visit seems to have occurred in the spring of 27 A. D.

The public life of Jesus covered a period of more than three years but less than four. This would set the year of His crucifixion and resurrection as about the year 30. To make allowances for all possible sources of error, Prof. Gerhardt adopts a "bracket" of five years, 29 to 33 A. D. inclusive.

With this he begins his astronomical calculations to determine the exact date. Gospel accounts state that the crucifixion took place on the eve of the Sabbath of Passover, on the fifteenth day

of the month Nisan. The problem then became one of determining the year on which Nisan 15 fell on Friday.

The Jewish calendar, like all ancient time reckonings in the East, was reckoned on the changes of the moon. A month began on the evening when the first light of the new moon became visible. With the assistance of data prepared by a number of other astronomers, Prof. Gerhardt has been able to reconstruct the Jewish calendars of the five years in question, and finds that the fateful fifteenth of Nisan on which crucifixion occurred corresponds with the date, according to modern reckoning, of April 7, 30 A. D.

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## ETHNOLOGY

## Dionysos, Greek Wine-God, At First an "All-God"

**D**IONYSOS, the Greek wine-god known also as Bacchus, was not originally merely a god of wine. He was an "all-god," with power in heaven and on earth, and able to confer immortality on his devotees. Only in the later developments of his cult did he degenerate into a patron of mere bibulosity.

This is the belief of Prof. Johannes Leipoldt of the University of Leipzig,

## PHYSIOLOGY

# Anesthetic Drugs Make Jelly Of Brain and Nerves

**C**OAGULATION or clotting of the liquid protein substances of brain and sensory nerves is the cause of the action of common anesthetic drugs.

A challenge to the chemist is contained in this statement by Prof. W. D. Bancroft of Cornell University to the meeting of the American Chemical Society at Indianapolis. Practically nothing is known about the nature or the properties of these animal proteins, said Dr. Bancroft.

Different proteins occur in different parts of the nervous system for suitable

who has been investigating all available materials on the Dionysiac cult in ancient Greece and Rome.

It is not easy to get all the facts about Dionysos, Prof. Leipoldt states, because the doctrines concerning him were kept secret, and his rites were "mysteries" which only the initiate might witness.

Dionysianism was an orgiastic religion, but orgiastic in the sense that it was ecstatic. Dionysos was a nature-god, and his followers accordingly began his rites by costuming themselves as bacchantes, satyrs, Pans, etc. Then they proceeded through the ritual, in which a peculiar dance figured prominently. The knees were pulled up sharply, the arms were thrown out or up, the head was either jerked far back or held down on the chest.

This was supposed to induce, and usually did induce, a state of semi-conscious ecstasy, which was interpreted by the devotees as a visitation by the god himself and an assurance of immortality. The whole proceeding and its results are very suggestive of some of the smaller modern Christian cults.

Wine was originally resorted to as a part of the effort to bring on the ecstatic state, but was not used unless ecstasy could not be produced without it.

The after-effects of such a vehement "attack" of religion, whether with or without wine, were naturally rather pronounced. The state of ecstasy was succeeded by a period of exhaustion. And if the efforts to reach that state were unsuccessful, the unfortunate disciple next day had a bad case of "katzenjammer."

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drugs can cause jelling of one region while leaving others untouched. Veronal causes reversible coagulation of the brain proteins without affecting the sensory nerves. Histamine coagulates the proteins of the sensory nerves. Curare causes partial clotting of the motor nerves, while potassium salts affect the proteins of muscle.

Prof. Bancroft's report was presented jointly by himself and Drs. J. H. Richter and J. E. Rutzler, also of Cornell University.

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