

## The Scopes Case Decision

Though the Tennessee Supreme Court has upheld the State anti-evolution law that gave rise to the famous Dayton battle of the summer of 1925, its interpretation thereof, as written into its decision, virtually makes the much-debated statute a dead letter and puts the Supreme Court on the side of evolution, in the opinion of Scopes' supporters.

Henry E. Colton, who took part in the appeal as counsel for the Tennessee Academy of Science, points to the interpretation of Justice Chambliss as a virtual agreement with the position of the lawyers for the defense.

"He holds that the act does not prohibit the teaching of the scientific theory of evolution as usually taught in schools and colleges, but merely the teaching of materialism or the materialistic theory of evolution," Mr. Colton said. "Under Justice Chambliss' decision the teacher is at liberty to teach the gradual development of human and other life in accord with the scientific theory of evolution provided that in so teaching he does not deny man's divine origin."

When shown Mr. Colton's interpretation of the Tennessee Supreme Court decision on the Scopes case, Dr. Vernon Kellogg, permanent secretary of the National Research Council, made the following statement:

"The statement of Mr. Colton concerning the real character and significance of the decision of the Supreme Court of Tennessee in the Scopes case throws upon this decision a different light from that thrown upon it by the first newspaper accounts of the action of the Court. It is a light less unflattering to the intelligence of the supreme judicial body of Tennessee.

"No teacher of evolution that I know wishes to teach evolution in any such way as to make it deny the existence of God, or even to exclude an element of divinity in the origin and character of man. Evolution as a method or process and God as an ultimate cause are two different things. If the Tennessee law does not prohibit the teaching of evolution but only the teaching of a 'materialistic theory of evolution' which denies God's share in the origin of man, then evolutionists have no large cause to complain. Because while we know something of the nature of the evolutionary process in Nature we do not claim to know the ultimate causes and control of evolution. That is the mystery of life."

Opponents of the Tennessee anti-evolution statute look upon the decision  
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LELAND OSSIAN HOWARD

## Warrior Against Insects

Perhaps more than any other one person during late years Dr. L. O. Howard has helped put economic entomology on the map. He has been the leader in bringing forcefully to the people the menace injurious insects hold for humanity. Busy as he has been with the administration of the rapidly growing U. S. Bureau of Entomology and with his own research in the field of natural control of injurious insects and in medical entomology, he has devoted much time in lectures and in published articles to the increasing danger to the human race through the rapid multiplication of insects.

Dr. Howard was born June 11, 1857, at Rockford, Illinois, while his parents (New Yorkers) were making a temporary stay there. He was educated at Cornell University, graduating in 1877. He took a year's graduate work preparatory to medicine. Just then, however, he received an appointment in the Department of Agriculture in Washington, where he has been engaged in scientific work since November, 1878, first as assistant entomologist and from June, 1894, as chief of the service.

The work was in its infancy when Dr. Howard came to Washington, the annual budget amounting to only \$5,000. But so great has been the appreciation of the work done in this direction that the appropriation bill for the fiscal year beginning July 1, 1927, carries more than \$3,000,000.

Dr. Howard has been president of  
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## Static Hurricane Warnings

Static, the bane of the radio fan who wants to get distant stations, may prove a valuable warning of such storms as the disastrous hurricane which struck Miami last September, according to a study made by the Hydrographic Office of the U. S. Navy.

Beginning in March, 1924, the U. S. S. *Kittery* was used in a study of the value of weather maps in navigation. Before the experiments had been under way very long, it was noticed that there was a very definite relation between the state of the atmosphere, as recorded in the data for weather maps broadcast from the naval radio station at Arlington, and the static. Later, when the weather maps were broadcast and received by means of the machine invented by C. Francis Jenkins, where a duplicate of the transmitted map is automatically drawn on the ship, it was found that the receiver could be used to record static.

The Jenkins machine is used in connection with a radio compass. The latter device is equipped with a loop antenna so that signals may be recorded from one definite direction. As the loop is rotated, and peals of static in any direction are detected by the receiver, corresponding ink lines are drawn on the paper-covered revolving drum of the Jenkins machine. In the time that it takes the recording pen to travel from one end of the drum to the other, the loop is turned through a complete circle, so that the paper gives a graphic picture of the static in any direction from the observer.

The *Kittery* was fortunate enough from the scientific viewpoint, to be in the path of the Miami hurricane of September, which was preceded by another hurricane that swept over Bermuda. On Sept. 14, when the *Kittery* was east of Nassau, the Bermuda hurricane was a few hundred miles to the northeast and the Miami hurricane was approaching St. Thomas. The maximum of static was from a direction between these two storms. As the ship sailed south, and the Miami storm came nearer, while the Bermuda one went out of range, the static in the direction of the former became more intense. Finally, on Sept. 16, after the *Kittery* had reached Cape Haitien, at the northwest tip of Haiti, and had made necessary preparations for rough weather, the ship and storm met. The static was terrific in all directions.  
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### Static Hurricane Warnings

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By Sept. 18, the *Kittery* was at Guantanamo, Cuba, and the storm was 600 miles away.

The *Kittery* met the Miami hurricane on its way to Florida, and rode through it, when the static was terrific in all directions. When the storm was 600 miles away, there was a well marked maximum of static in its direction. As such hurricanes develop in the doldrums of the Atlantic Ocean, off Cape Verde, the western tip of Africa, several weeks before they hit the United States, it is suggested that a group of radio compass stations located, perhaps, at San Juan, P. R., a point in the Barbadoes, and Trinidad, would be able to detect these storms as they approach. With three stations, where the lines from each cross would be the center of the storm, so that its position could be accurately plotted and sufficient time for warnings and preparation could be allowed.

Science News-Letter, January 29, 1927

Burial of the dead, which is a rite practiced only by human beings, was started by very early primitive men.

Cutworms, which pester the modern farmer, were a problem for Indian planters when colonists came to this country.

Alaska has enough grazing land available to support 3,000,000 reindeer, even though each reindeer requires 40 to 60 acres.

In prehistoric times, Java, Sumatra, and Borneo were a part of the Asiatic continent, says a botanist of the University of California.

In recent years coyotes have spread, so that they are now found from Central America to Canada, and from Indiana to the Pacific coast.

Painting the ends of street cars white, to make them more clearly visible to automobile drivers at night, is being tried in San Francisco.

Air mail planes that fly at night are equipped for emergency use with two parachute flares each giving a 30,000-candlepower light for four minutes.

A criminologist says that juvenile sex delinquency is a crime of dull or moron minds, whereas stealing is a crime of persons normal or superior as far as mentality goes.

### Warrior Against Insects

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the American Association for the Advancement of Science, is a member of the National Academy of Sciences and the American Philosophical Society, and a fellow of the American Academy of Arts and Sciences. He has been president of two international congresses and vice-president of others. He is a member of more than twenty foreign scientific academies and societies, and has received several decorations and medals. He has also been given the degrees of Ph.D., M.D., Sc.D. and LL.D.

Science News-Letter, January 29, 1927

#### ENTOMOLOGY

### Entomonimrod

On reading of Dr. L. O. Howard's account of man's warfare with the insects

I write of roaches, flies and bugs,  
Of ants and gnats, of weevils, slugs,  
Of creeping, crawling, troubling things,

The flea that bites, the wasp that stings.

They eat our corn and oats and wheat  
Consume our bread, our drink, our meat,

Infest our homes, decrease our wealth,  
Disturb our sleep destroy our health.  
Their progeny by millions swarms  
About our quiet country farms.

The question often comes to me  
When fighting bed bug, ant or flea,  
Or chasing up maurauding flies  
Protected mainly by their size,

Of life which has the longer span,  
Which will survive, the bugs, or man?

—Charlotte K. Miles.

Science News-Letter, January 29, 1927

The robber fly is fierce and cruel in its attacks on bees, wasps, and other "game" that it hunts for food.

A new type of torch, burning gas combined with oxygen, may replace acetylene and other gas torches now in use.

School children in Egypt are to be grouped according to intelligence, as they are in many schools in this country.

The Island of Melos is an ancient volcano, and the famous Venus of Milo may have lost its arms in an earthquake.

The Chichimec Indians of the Valley of Mexico were so healthy in ancient times that when one of them was sick for more than four or five days he was killed.

### The Scopes Case Decision

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sion of the State Supreme Court as an effort to shove it into the limbo of laws laid on the shelf and left unenforced—the fate hinted for it by Governor Peay when he signed it nearly two years ago. Supporters of the defense in the Scopes trial are disinclined to rest content with the partial victory that can be read into the three opinions given by members of the Supreme Court, and are looking over the ground to decide on a further plan of campaign to force a clear-cut meeting of the issue.

"The Scopes decision is amazing," was the characterization by Arthur Garfield Hays, chief authority on constitutional law among the legal talent on the Scopes defense. "The most disappointing part of it is the reversal on a technical point not raised by us. This was apparently done to avoid an appeal to the United States Supreme Court.

"It is to be noted that the prevailing opinion in the Tennessee Supreme Court held the act not unconstitutional on the ground of indefiniteness; yet three opinions give three different constructions.

"Tennessee seems to be making an extreme effort to avoid the consequences of this law. If no appeal to the Federal Supreme Court is possible we shall have to take some other course to test the law, for the State will probably never attempt to enforce it again. It is too bizarre."

Science News-Letter, January 29, 1927

Asbestos is used in making fire-proof paint.

The average number of eggs laid by a hen in this country is 55 a year.

Whether bees are color blind is being investigated by government scientists.

Experiments to cut down the number of pieces in a house are expected to make construction cheaper.

The United States will have a population of 123,288,000 by 1930, the Bureau of the Census estimates.

To obtain salt in inland China, wells are sometimes laboriously bored through solid rock to a depth of 3,000 feet.

A folding go-cart for a baby that can be made into a 14-pound handbag when baby is not riding is a new device.