

MISSISSIPPI EVOLUTION LAW TO BE CHALLENGED BY CIVIL LIBERTIES UNION

Mississippi's new anti-evolution law already faces a challenge on the part of the American Civil Liberties Union, the organization that undertook the defense of John T. Scopes in the famous Dayton anti-evolution trial last summer. Arthur Garfield Hays, member of the Scopes defense counsel, has informed Science Service that the organization is contemplating a test case, but will attack this time by means of a taxpayer's suit, which though it offers less possibility of the spectacular proceedings that marked the Dayton trial at the same time affords a better opportunity for a thorough-going legal test, free from extraneous appeals to religious prejudice and mob emotions.

"In bringing such a suit," said Mr. Hays, "it is of course necessary that the initiative be taken by a citizen and taxpayer in the state affected. We are now in communication with a number of interested persons in Mississippi, and as soon as we shall have made the proper arrangements we shall take action."

Mr. Hays also stated that the appeal in the Scopes case is still pending before the supreme court of the State of Tennessee. The defense had its case ready some time ago, he stated, but the State has been slow in preparing its brief. It is hoped, however, that a hearing may be had some time during May.

CONCRETE ROADS "TIRED" SAYS HIGHWAY EXPERT

Like the people who ride over them, concrete roads get "tired" and require periods of rest that they may recuperate, Prof. S. S. Steinberg, of the University of Maryland, and assistant director of the Highway Research Board of the National Research Council has discovered. This is one of the subjects being studied at the University of Maryland and other institutions engaged in highway research.

"Considerable attention is being given to determining the causes of cracking in concrete roads," said Prof. Steinberg. "The extent of cracks in a slab is dependent upon the underlying soil, the quality of the concrete, and the loads the pavement must bear. When a vehicle passes over a concrete pavement, the slab is deflected. The result is that under traffic the road is subjected to a wave action, the slab rising and falling with each passage of a wheel. On roads under heavy traffic at high speeds, this motion may be repeated many hundred times an hour."

"Experiments have been conducted in the laboratory simulating these field conditions, with the discovery that concrete is subject to fatigue, which, in many respects, is analogous to muscular fatigue in human beings. After continued rapid application of load, the normal elastic properties of the concrete are overcome and the fatigue limit is reached. The result is a break in the concrete and the appearance of a crack in the road. The analogy to muscular fatigue is further evidenced by the fact that if before failure the concrete is permitted to have long periods of rest, it recovers its ability to resist the applied forces and the fatigue limit, or life of the slab, is extended.

"The stresses produced in roads, by traffic, as well as the deflections and changes of length they cause, are measured by specially constructed instruments

installed in the road. An analysis of these measurements serves to determine the proper thickness of the road slab in its different parts to support the traffic the road must carry."

A recent improvement described by Prof. Steinberg is a new kind of cement, which, when used in concrete, has the property of developing greater strength in 24 hours than is developed by the ordinary Portland cement in 28 days. This opens up remarkable possibilities in road construction.

"Whereas, by use of the ordinary cement a road must 'cure', or acquire strength, for 14 days after being laid, during which time it is not permitted to carry traffic, it may now be possible to build a portion of a concrete road on one day and open it to traffic the next. Studies are under way to determine more fully the physical properties and characteristics of this cement," he stated.

CZECHOSLOVAKIA UNEARTHES RARE RELICS OF EARLY MAN

A zoo of all the prehistoric animals including cave bears, rhinoceroses, woolly mammoths, hyenas, wolves and lions, that flourished when glaciers were still in order in the weather program of Europe, are being mounted in the Zemske Museum at Brno, Czechoslovakia.

Czechoslovakia now has the largest collection of later paleolithic Aurignacian remains in the world, according to information just received by Dr. Ales Hrdlicka, physical anthropologist of the Smithsonian Institution. Paleolithic refers to that great period before history begins, when man merely chipped flint to make weapons and implements for use in his daily life, and knew no pottery, no agriculture, and as yet domesticated no animals. Moravia, the central part of Czechoslovakia contains more cultural remains of the later part of this age than probably any other section of Europe.

According also to Dr. Hrdlicka's correspondent, Dr. Karel Absolon, curator of the Zemske Museum, all the private collections of this region relating to early man have lately been bought by the State to be merged into one big collection so that practically all of the remains of Moravia are concentrated at Brno.

At Predmost, an important site for the remains of this age previously thought to be exhausted, a big ditch instigated by an industrial concern two years ago cut the exploration field in half and exposed still other large strata of cultural remains. Recent government appropriations have enabled anthropologists to continue the excavations in this and in other fields and Dr. Absolon's letter to Dr. Hrdlicka contains the first official account of the valuable prehistoric relics that have come to light.

"We have been digging at Predmost," says Dr. Absolon, "systematically since 1924 and discovering new treasures. The work of exploration may be carried on here for many years. We have found very beautiful new 'laurel leaves', (flint points) a large quantity of new stone implements, a sculpture of the human face and tons of bones."