

and practical experience"—the fact being, according to him, that such breaking of the upper surface "causes or tends to cause *increased evaporation*."

The statement made by the present writer may possibly be contrary to "engineering" experience, but that it is a truism well known to all practical farmers from the days of King Hamurabi to date, can not be gainsaid.

I quote from "Soil Fertility and Permanent Agriculture" by Dr. Cyril Hopkins, page 579—"In the semi-arid regions, fallow cultivation is practiced during one season, *the soil being stirred after each rain to prevent evaporation*, and thus store up sufficient moisture in the soil to give the crop a good start" (italics mine).

There is scarcely a more well known practice inculcated by practical farmers, in regions where droughts are feared, than the absolute necessity of keeping the surface covered with finely broken soil, for the specific purpose of conserving the soil water.

In semi-arid regions, this practice is absolutely essential to the farmers' financial life, and most "farm periodicals" harp upon this string in season and out.

L. S. FRIERSON

GAYLE, LA.

QUOTATIONS

PROPOSED LEGISLATION AGAINST THE TEACHING OF EVOLUTION

IN KENTUCKY¹

THE Kentucky House of Representatives spent five hours to-day [March 9] in discussing and hearing discussions of the "monkey bill" of Representative G. W. Ellis of Barren County, forbidding the teaching of evolution in public schools and universities. The measure was defeated by a vote of 42 to 41, after a recapitulation of the vote during which members were dragged into the chamber from other parts of the capital.

Dr. F. L. McVey, president of the state university, and the Rev. Dr. E. L. Powell, pastor of the First Christian Church, Louisville, dis-

cussed the bill by invitation. The former declared that the legislature is not within its rights in passing such a law as that proposed, and urged the members not to base the inspiration of the Bible on matters not essential, but to heed teachings of the Book. He asserted that the Bible is not an authority on science, legislation, chemistry, or any of one thousand other subjects, but on moral, spiritual and religious matters. Dr. McVey went into the subject of evolution, pointing out that many accept the teachings as not in contradiction to the Bible, and insisted that the university makes no attempt to interfere with the religion of its students. He told of the various religious activities of the university, and warned the House that it would set a dangerous precedent in the passage of the Ellis bill. He recalled fights on scientific theories in the past based on the ground that they are opposing the Bible, and reviewed briefly the manner in which various scientific subjects are taught.

Mr. Ellis brought forward Noel W. Gaines of Frankfort, formerly an army officer, who has been in the limelight several times in his career, most recently when he was involved in the "ground glass" controversy in a Southern camp, to speak for the bill. Mr. Gaines put William Jennings Bryan to shame in his denunciation of those who believe evolution, directing many of his remarks directly at Dr. Powell and Mr. McVey. He talked for nearly an hour and was frequently applauded and cheered, while spectators in the gallery and around the walls of the chamber roared with laughter. One of his "stunts" was a division of the sheep and goats, placing Dr. McVey, Dr. Powell and various zoology text books on the one side and the Bible, the Declaration of Independence and himself on the other. He had the books before him as he ran up and down behind the clerk's desk, scattering them about as he waved his arms in emphatic gestures. Finally he threw one of the text books to the floor and trampled it under foot.

"I am ashamed of this day in the Kentucky legislature," said Representative G. C. Waggoner of Scott County, a minister and veteran legislator, toward the close of the debate.

"This bill smacks of intolerance and the

¹Abridged from the *Louisville Courier-Journal*.

shadows of the Dark Ages are settling about us." Mr. Waggoner opposed the bill on the ground that in passing it the legislature would exceed its functions as a law-making body and would set a dangerous precedent. "There have been times here to-day when those on both sides of this discussion were about ready to place their opponents on the rack and torture them," continued Mr. Waggoner. "I don't know anything about evolution and from what I've heard I don't believe there are others here who do. We have set up a straw man and have been boxing industriously at him all day."

In his final appeal for the passage of his bill, Mr. Ellis said he had sent his son to the University of Kentucky and that he returned with his faith destroyed and argued religion against his father and mother. The voice of the aged representative was broken with emotion as he told of this experience.

When the roll was called the vote stood 38 to 36 for the bill, which meant its defeat, as 40 votes are required for passage. As Mr. Meyers was about to announce this the proponents demanded that the absentees be called. Then the vote was 40 to 39 for the bill. The opponents demanded a recapitulation. During that they dragged in two more members and the proponents one, making it 41 to 41. Representative Bryce Cundiff, who had declined to vote on the ground that he "was a hard shell Baptist and believed what was would be anyhow," said he would have to discard his religion and vote "No." Then the bill was declared to be defeated by a vote of 41 to 40.

IN SOUTH CAROLINA¹

The teaching of "the cult known as Darwinism" as "a creed to be followed" is prohibited in all state supported public schools and institutions of higher learning by a proviso attached as a rider to the general appropriation bill by the Senate yesterday morning. The amend-

¹ From the *Columbia State*. The amendment was eliminated from the bill by the conference committee appointed to adjust differences between the bill as passed by the House and by the Senate. It is said that another attempt will probably be made to pass the bill when the legislature meets next year.

ment, which was tagged on to the end of the section providing for the appropriation of funds for the public school system, would make it impossible for any public school or higher institution of learning teaching or permitting "Darwinism" to be taught to receive any funds from the state and would prohibit the paying of state funds to any such institution. Senator F. A. Miller of Hartsville is the author of the proviso, which was adopted by the Senate, practically without opposition.

Ultimate fate of the proviso, which took its place as one of the Senate amendments to which the House refused concurrence, will therefore have to be determined by the conference committee to which the appropriation bill was referred. None of the representatives on this committee from either house have announced their stand on the question and since the House has never explicitly expressed itself on the question the House conferees will consider the proviso without any idea as to the House's stand on the matter.

The amendment was passed in the Senate practically without debate or opposition, Senator Miller making the only address either for or against the measure. The proviso follows in full:

And provided, further, That no moneys appropriated for public education or for the maintenance and support of state supported institutions shall be used or paid to any such school or institution teaching, or permitting to be taught, as a creed to be followed, the cult known as "Darwinism."

The proviso contains no definition of "Darwinism" and is intended, Senator Miller explains, to apply only to Darwinism and therefore not to the theories of evolution of Lamarck, Bergson, Le Dantec, Baldwin, Osborn, and the many others who have since Darwin's day practically thrown "Darwinism," as it was first enunciated, into the discard. The amendment applies, Senator Miller points out, only when "Darwinism"—which is now defined as the theory of natural selection, that is, the survival of the fittest in the struggle for life, was the mechanism by which evolution was accomplished—is taught or permitted to be taught "as a creed to be followed" and not when it is

merely explained to the pupils as the pagan philosophies are explained.

SCIENTIFIC BOOKS

The Friendly Arctic. V. STEFANSSON. The Story of Five Years in Polar Regions, with a foreword by Gilbert Grosvenor, president of the National Geographic Society, and an introduction by Sir Robert Borden, Prime Minister of Canada. New York (Macmillan) 1921. Pp. xxxi + 784.

It is the habit of scientific men to say that there is no guide for the well-ordered conduct of the every-day business of living which approaches in validity and all-round usefulness that which is called the scientific method. But while this is strictly orthodox and extremely common preaching, the thoughtful observer of human folkways can not but be impressed with the fact that the correlation between this trite preaching and the actual practice of his friends in the conduct of their own lives, is not of as high an order as it would be expected to be if the preaching were taken at its face value. It is, therefore, an event of great human interest as well as of no mean scientific importance to have forthcoming a well-nigh complete and perfect example of what happens when scientific methods of thought are translated into action, with something approaching 100 per cent. completeness, to the end of living happily, usefully and continuously in a naturally harsh environment. Such an event is afforded in this recent book by Stefansson.

It is from this point of view that, in my opinion, the book has its greatest significance. It contains a wealth of records of achievements in the field of geography in the narrower sense of the word—discoveries and descriptions of new lands, exploration of the bottom of the polar sea by soundings, much exact mapping of coast lines, and the like—which I suppose to be of major importance in those fields of science, but being in no wise a specialist in either geography or polar exploration, I am not qualified to express any expert opinion on these matters. But I have a strong conviction, after carefully reading the book twice, that the importance which the history of science is go-

ing to attach to Stefansson's work in the polar regions will rest primarily upon quite another thing than his contributions to geography in the strict and limited sense, significant as I have no doubt these contributions are.

In temperate, sub-tropical and sub-arctic portions of the earth's surface certainly, the zone of freedom in human behavior is, from the viewpoint of evolution, rather wide. Men in such regions are, and must always have been, widely free to develop any sort of habits of life and folkways in general, so far as the eliminative action of the purely physical environment was concerned. For example, it makes no difference in terms of survival value so far as one knows, whether ladies dress in the entertaining and colorful manner of the Rumanian peasant, or in the quite different if not less exciting manner of the Fifth Avenue society woman. But the case is biologically quite different in the polar regions. There the zone of freedom in respect of the mode of conducting life is extremely narrow. The environment imposes strict and narrow limitations on habits and biological folkways generally. One conforms or is eliminated. There is no wider range of choice.

Now presumably the Eskimo's knowledge of how to live happily, comfortably and reasonably long in the Arctic has been very slowly and somewhat painfully wrought into his racial and individual consciousness mainly by the operation of natural selection. Those who did not dress, house themselves, find food, etc., within the limits of the zone of freedom of individual action rigidly set by the environment are no longer either present or represented in the Eskimo population. The consequence is that the Eskimo is now, as Stefansson has demonstrated with a wealth of detail in this and his earlier book, "My Life with the Eskimo," a creature extraordinarily well adapted to his particular environment, and therefore happy in it.

Prior to Stefansson's work the whites who have adventured into the Arctic as explorers, and the list is a nobly impressive one, have uniformly depended upon what is, in its philosophical essence, one and the same scheme to