

vote of 82 to 62. A similar bill passed the house in Arkansas by a vote of 50 to 47, but was tabled in the senate by a very large majority. In Oklahoma an anti-evolution bill was stricken from the calendar by a vote of 46 to 30. A vigorous battle was anticipated in North Dakota, but the committee of the house to which the bill was referred unanimously reported it for "indefinite postponement." A drastic anti-evolution measure has failed also in North Carolina. Alabama has an anti-evolution bill, sponsored by a Baptist preacher, but it seems thus far to have failed to enlist much sentiment in its favor, and little anxiety is felt over the possibility of its passage.

The University of Minnesota is putting up a strong fight against the so-called Riley bill. All of the deans and several prominent faculty members have published statements opposing the bill, and a resolution condemning it was passed unanimously in an enthusiastic mass meeting of over five thousand students, who roared their disapproval in no uncertain terms. This was fine. A petition setting forth the reasons for protecting academic freedom by defeating this intolerant measure was signed by thousands of students and sent to the legislature. This body will be left in no doubt now, if it ever was before, concerning the attitude of the scholastic world as to legislative interference with the rights of the teacher.

The anti-evolution bill in California will not pass. It is strongly opposed in the committee on education, and although some fundamentalists in the state are endeavoring to work up sentiment in favor of it there is little to give them encouragement. A few states remain to be heard from.

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THE STEVENSON EXPERIMENTAL ARCH DAM

EXTENSIVE tests upon the dam at Stevenson Creek, Fresno County, Calif., have been completed according to an announcement by the U. S. Bureau of Standards. Complete sets of deformations, strain and slide measurements have been made for varied loads up to those produced by a head of 60 feet, the height of the crest of the dam. The tests upon the dam have been made at night to eliminate temperature effects as far as possible.

The only signs of failure are two vertical cracks in the center line of the dam, one extending from the lowest point upward some 13 feet, the other from the highest point downward some 19 feet. The top crack opens widest at a head of 45 to 50 feet and at a head of 60 feet returns practically to the same width as when no water is in the reservoir. This crack does not permit water to seep through. Its maximum width is about 0.03 inch, and the lower crack is still smaller.

Cracks formed at the abutment between the dam and the foundation rock a short time after the completion of the dam, presumably because of shrinkage or temperature changes. These cracks were covered with a fillet of mortar in order to facilitate their observation. Very little change has occurred in them.

The work of analyzing the data is now sufficiently advanced to warrant the following conclusions:

1. The load carried due to the horizontal thrust in the horizontal elements (the arch ribs) has been determined for all parts of the dam under the 60-foot head. The load is a maximum about the mid height and decreases to a small amount both at the top and bottom of the dam.

2. The load carried by bending of the horizontal elements has been approximately determined at certain places. The indication is that the greater part of the load lies nearer the vertical center line of the dam.

3. The load carried by the bending of the vertical elements has been partially determined. Evidently near the bottom of the dam practically all the load is carried in this manner. Near the top none of it seems to be so carried, and the vertical elements appear to be supported by the horizontal elements.

A study of the advisability and nature of further tests upon the dam and of increasing the height of the dam is now being made by the engineers in charge.

SESQUICENTENNIAL EXPOSITION AWARDS TO THE U. S. DEPARTMENT OF AGRICULTURE

THE executive committee of awards of the Sesquicentennial International Exposition at Philadelphia has awarded the Department of Agriculture a Grand Prize on account of the merit of its collective exhibit at the exposition. Awards on the exhibits of the various bureaus and offices were also announced, as follows:

Bureau of Plant Industry: Medal of honor, for exhibit of the systematic classification of existing crop plant varieties and the introduction, adaptation and improvement of new varieties, including hays and forage. Medal of honor, for showing original research in the day-length requirements of plant life.

Forest Service: Medal of honor, for excellence of exhibit on the wasting and preservation of American forests.

Bureau of Soils: Medal of honor, for display of analyses and classification of typical soils of the United States.

Bureau of Biological Survey: Medal of honor, on exhibit showing the conservation, utilization, and control of wild life.

Bureau of Public Roads: Medal of honor, for his-