

guardian." The amendment was specifically sought by the Christian Science Church.

Dr. Lewis A. Wilson, Commissioner of Education, has already approved the exemption of the children of parents or guardians of the Christian Science faith from instruction in the units of disease prevention and control and has indicated specifically which parts of the syllabus are to be omitted in their case. According to his ruling, these children will get no instruction in such areas as the building up of resistance to disease; the understanding of current health programs, both public and private; measures used to prevent the spread of communicable diseases; the importance of heart disease, cancer, diabetes, diphtheria, typhoid fever, tuberculosis, and infantile paralysis; the role of insects in the transmission of disease, a role which properly understood enabled the United States to build the Panama Canal after France had failed; the relation of the sanitary control of water and food to public health; war conditions and the problem of disease control and prevention; what bacteria are; the work of such eminent figures as Florence Nightingale, Louis Pasteur, Walter Reed, Robert Koch, and Alexander Fleming, the discoverer of penicillin; the home care of the sick; first-aid treatment; and so on. This is only a sampling of the units of instruction that fall under the ban of law.

It is obvious from the mere listing of these topics that the law will deprive exempted children of invaluable information; but even more, the Commissioner goes on to state that "required sections of the Regents examination as well as the State Scholarship examinations will be constructed so as not to penalize pupils who have been excused from instruction in the specified units of study." Thus, de-emphasis and virtual elimination of these topics loom up for all children, Christian Science or not. Even on a history examination, for example, no question may be asked about Louis Pasteur or Gen. William Gorgas, for these men were concerned with disease control.

This law and its method of implementation are so alarming from the point of view of the protection of the health of the individual and the community and from the point of view of the preservation of the state itself and its public educational system, that a widespread demand for its repeal is in order.

Lipoid-Lipoprotein Cholesterol

THE ultracentrifuge studies of J. W. Gofman and co-workers on lipoid-lipoprotein cholesterol complexes in sera have established the importance of the differences in the physical state, especially particle size, in atherosclerosis. We have observed an even more striking similar effect while producing experimental hypercholesteremia in rabbits. In these animals a definite and consistent layering of the hyperlipemic and cholesteremic sera occurs merely on standing. Two definite layers form without centrifuging, similar to cream in a bottle of milk. This process is accentuated and quickened by an ordinary centrifuge. The upper layer

consists of large aggregates which may be seen easily with an ordinary microscope. The effect occurs only when high serum levels are attained, especially over 1,500 mg% of cholesterol; and the height of the layer increases roughly in proportion as the cholesterol level is raised by continued feeding. There is a marked difference in the cholesterol content of the two layers. In one serum the top layer contained 4,540 mg% of total cholesterol and 1,100 mg% of free cholesterol, whereas the bottom layer had 2,020 mg% total and 616 mg% of free cholesterol.

This very easily elicited difference in lipoid aggregates probably plays an important role in the experimental production of atheroma in the rabbit. The study of these layers should aid in determining the exact nature of the lipo-protein-cholesterol complexes.

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A Correction to North American Fauna No. 35

IT WAS recently suggested to the writer by Elliott S. Barker, State Game Warden of New Mexico, that the figures given by the late Vernon Bailey in "Life Zones and Crop Zones of New Mexico" (*North American Fauna No. 35* [1913]) for some of the life zones of New Mexico seemed to him to be seriously in error. Since Bailey's paper and its accompanying map are still in rather wide use, at least by students of faunistics, and since the areas of the life zones are of importance in certain phases of game management, we decided to check Bailey's map carefully to recompute the areas. We assumed the map to be reasonably accurate. It is, apparently, the only detailed map of the life zones of New Mexico in existence.

E. S. Barker, Richard Allgood, and Levon Lee together carefully checked a copy of this map, using a planimeter for all zones except the combined Hudsonian-Arctic-Alpine, which they estimated. The writer made an independent estimate from another copy of the map, by taking each township separately and estimating visually to the nearest 25% the proportion of the township in each of the several life zones. (There are approximately 3,400 townships in New Mexico, the area of the state being about 122,400

TABLE 1

Zone	Bailey (round figures, sq mi)	Barker (round figures, sq mi)	Campbell (actual figures, sq mi)
Lower Sonoran	18,000	19,400	19,516
Upper Sonoran	92,000	79,000	78,482
Transition	10,000	20,000	19,242
Canadian	2,000	3,850	4,167
Hudsonian	300	} 150	} 234
Arctic-Alpine	100		
Totals	122,400	122,400	121,641