2. Speedy extension of each state's forest fire prevention and control system to include all forest lands needing systematic protection.

3. Promotion of comprehensive economic surveys to provide for land-use zoning to designate areas best suited to agricultural development, private forestry and public forests.

4. Development of a coordinated system of publicly owned forests, national, state and local, to be used for timber production, demonstration of improved timber growing and fire control methods, wild life conservation, public hunting grounds and recreation.

5. Equalization of taxes so that forest property will not carry a greater burden, in proportion to its value, than do other classes of property.

6. State-wide assistance to landowners in the handling of their forestry problems.

7. Encouragement of reforestation of idle and eroding lands by maintaining state forest tree nurseries to provide suitable planting stock.

8. Extension of investigations by federal forest experiment stations and suitable state research agencies upon the various subjects fundamental to economic handling of forest lands.

9. Speedy extension to the entire southeast of a survey inaugurated under the McNary-McSweeney Act to supply information now woefully lacking as to the present quantity and condition of standing timber, its rate of growth and rate of depletion and market demands for the several types of timber.

10. Recognition by the Federal Government of landowners engaged in the practice of forestry as eligible for the same loans, assistance, grants and privileges as are accorded to the producers of other crops that spring from the soil.

THE WISCONSIN ALUMNI RESEARCH FOUNDATION

A PATENT on another important scientific discovery which will aid in the restoration and protection of health has been assigned to the Wisconsin Alumni Research foundation at the University of Wisconsin, according to an announcement made by Dr. Harry L. Russell, director of the foundation.

A broad basic patent on inorganic compounds of iron and copper for the prevention and treatment of anemia has been granted to Professor Edwin Bret Hart, of the department of agricultural chemistry, University of Wisconsin, and has been assigned to the foundation, becoming one of a number of health-giving discoveries controlled by the foundation in the interests of public welfare. Among the most important of these discoveries is Professor Harry D. Steenbock's process for imparting the health-giving vitamin D properties to food.

The latest patent assigned to the foundation covers various aspects of Professor Hart's discovery of the effect which copper has on unlocking the therapeutic powers of iron in restoring proper hemoglobin content to the blood of anemia patients. Professor Hart made his discovery in 1928 after three years of research and the patent application has been pending since that time.

The foundation has obtained patent control of the discovery, Dr. Russell explained, in order to insure the therapeutic presentation of the compounds in accord with the proper formula. This control is gained through a system of granting licenses for the use of the discovery and other patented articles, and thus the foundation is able to make available these discoveries to the public, while at the same time protecting the public from fraudulent and unchecked exploitation of uncontrolled commercial use.

Professor Hart's experiments showed that iron, long accepted as beneficial in some cases of anemia, required the addition of copper as a catalytic agent, and that "iron" which proved actively useful in treatment of anemias contained traces of copper as a contaminant. The research was narrowed to a study of inorganic materials when vegetable and animal tissues were burned to an ash before being fed and the catalytic properties were found to persist. The blue appearance of such ash led to successful experiments with copper.

Rabbits, chicks and rats developed severe anemia when placed on an exclusive diet of milk, a food naturally deficient in copper, but they evidenced rapid hemoblogin improvement to normal when minute quantities of copper were introduced in their foods.

In application to a hundred cases of secondary anemia in children, it was found in a New York hospital that the administration of copper and iron together increased the hemoglobin content from 64 per cent. to 84 per cent. in four weeks. The red blood cells gained in numbers accordingly. The appetite of the children treated improved materially, and they gained in alertness, weight and color. The copper-iron preparation was mixed with their milk or other foods which it was found neither to discolor nor to alter in taste.

THE PACIFIC DIVISION OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

BY invitation of the University of Utah, the seventeenth annual meeting of the Pacific Division of the American Association for the Advancement of Science and associated societies will be held in Salt Lake City. The period June 12 to 15, 1933, has been approved for the meeting. Up to the present time the following societies have announced their intention to participate:

American Association of Economic Entomologists, Pacific Slope Branch. *Chairman,* Program Committee: G. I. Reeves, University of Utah, Salt Lake City.