The appearance of such misstatements as these in a permanent public document gives Congress a discouraging idea of the value of scientific methods. However widely scholars may differ on political questions they surely should be able to present a united front on questions of arithmetic. In the presence of this apparent conflict of opinion, *it would seem appropriate for any member of Congress to request a report on the mathematical facts from the National Academy of Sciences*—which is the body legally appointed to advise Congress on all scientific questions. The modern analysis has given a complete list of all the methods which might be said to satisfy, in any sense, the constitutional requirement of proportionality. Congress, and Congress alone, must make the choice between these possible methods; but all congressmen are desirous of having accurate information on which an intelligent choice can be based; and an authoritative report from the National Academy of Sciences would provide exactly this information, without in any way limiting freedom of action.

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## SCIENTIFIC EVENTS

### PROJECT FOR AN ALEUTIAN GEOGRAPHIC OBSERVATORY

DR. T. A. JAGGAR writes in the *Volcano Letter* issued weekly by the Hawaiian Volcano Research Association on September 7, that he addressed the Seattle Chamber of Commerce on a proposed Aleutian Geographic Observatory to be established at Dutch Harbor, Alaska. It is estimated that to carry out this project the sum of $50,000 will be needed for equipment and that the upkeep will amount to an annual expenditure of $50,000. Dr. Jaggar stated that:

Experience shows that mapping should be the main aim, and that all sciences should be represented. The founding of the Hawaii Observatory by the sugar and other industries through the Volcano Research Association, with government collaboration, suggests that the fish, fur and shipping industries might do something effective for southwest Alaska.

Modern exploration and discovery are extended by each new invention. Montana and Arizona have been "discovered" to be garden spots through irrigation and agricultural machines. The *Carnegie* is mapping all the oceans with echo sounding and new electrical instruments.

The advent of the salmon canneries, of Diesel engines in 60-foot boats of 2,000 miles fuel radius, of radio communication, and of some new maps, have greatly improved the Alaskan field for the explorer.

It is proposed that the observatory be at Dutch Harbor as a fixed home for land and sea mapping and for measuring geophysical, biological and chemical processes along the arc of the Alaskan peninsula and the Aleutian Islands. The station will work in concert with eight scientific bureaus of the government, seven civil officers, and two outside institutions. It is called geographic, because it will study that part of the earth in relation to man.

It will measure and secure data all the year around concerning the weather, tides, currents, magnetism, earthquakes, volcanic activity, crust upheaval, animals, plants, fish, natives and commercial needs.

For the summer half of the year, the observatory will maintain expeditions to collect land and marine organisms, minerals, rocks and human antiquities; to map the lands, the geology, the depths of the sea, the air currents, temperatures and pressures, and such earth activities as magnetism, tremor, tilting and changes of mean sea-level. The snowy craters of the big volcanoes will be explored and photographed with the aid of alpinists and aviators.

There has come recently a demand for scientific study of the Aleutian lands from numerous scientific institutions and conventions, so that the matter is being pressed by the National Research Council of the United States. The writer has reconnoitered the field by three expeditions devoted primarily to volcanology.

The proposal is to place four workers at the main station winter and summer, equipped with a powerful Diesel yacht and small boats, also laboratories, shop, quarters, dock and photographic dark room. The station will keep in radio communication with its yacht and with existing stations. It will provide a base and a boat for the Coast Survey and the Geological Survey in mapping the coasts and interiors. It will publish weekly and quarterly reports.

The substations will work from April to September. The summer staff will be eight persons, and the substation will report to the main station. The substation camp will be left for future use. Specialists in all sciences will be imported from outside institutions for work at the substations.

### THE CONTROL OF MALARIA

THE work that has been done in recent years for the prevention of malaria was described at a meeting held in connection with the Ross Institute for Tropical Diseases in the council room of the Rubber Growers' Association. Sir Malcolm Watson said, according to an account given in the *Journal* of the American Medical Association, that the medical profession, in a resolution passed at the congress of the Far Eastern Association of Tropical Medicine held at Calcutta in December, 1927, laid down a policy on the subject of malaria control. They considered that for towns, mines, plantations, large public works and similar aggregations of people the control of the breeding places of the malaria-carrying species of mosquitoes should be employed, whatever other antimalarial measures were put into force. Before effect could be given to

this resolution, certain difficulties would have to be faced. In the first place, malaria control by means of mosquito control was not primarily a medical question at all. Physicians were trained principally in the diagnosis of disease and treatment of the sick; the prevention of malaria was more a health problem, and in the tropics health officers were the exception. The second difficulty had been that the control of mosquitoes was more than anything else an entomologic question. Some mosquitoes lived in shade and some in sunshine. The destruction of shade in certain places might introduce dangerous light-loving insects and increase existing malaria. The third difficulty was that for many forms of mosquito control a knowledge of drainage was necessary, and physicians were not trained in engineering schemes. The institute had formed an industrial advisory committee which hoped to be of assistance to tropical industry in supplying expert advice which was necessary before an employer could go ahead on a scheme with confidence that the money expended would give the desired results. The institute and hospital received sick men from the tropics, and it was open to physicians to come for advice or to work on the problems in which they were interested. There would be established a unique museum illustrating all the habits of the mosquito, and information would be given to physicians as to how the insects could be controlled. Expeditions would be sent abroad from time to time to study problems on the spot along with local physicians, and to discuss with them what steps could be taken to control the disease. Ultimately, he hoped, there would be a staff of expert research officers and engineers.

## THE U. S. BIOLOGICAL SURVEY

THE annual report of Paul G. Redington, chief of the Bureau of Biological Survey of the U. S. Department of Agriculture, has been issued. It points out that the development of additional refuge areas for wild life has been brought more intimately to public attention, and the sentiment throughout the country is more definitely crystallized in favor of a unified program, as it becomes generally understood that the onward march of civilization, with its farming and industrial operations, threatens, at least locally, the ultimate extinction of the various forms of wild life that were the delight of our forbears and that can not be perpetuated for future enjoyment unless provided with ample range, including feeding, breeding and resting grounds. There is urgent need for funds to enable the Biological Survey to investigate and determine the suitability of areas that are being proposed for refuge purposes.

Among the accomplishments and new lines of work undertaken in research during the year are the following:

Inauguration of studies of the relative abundance of migratory wild fowl from year to year, through systematic and repeated censuses taken by cooperators on important waterfowl concentration areas.

Authorization by congressional act of more extended research having to do with the relations of wild life to forestry—the effects of birds, mammals and other forms on forest production.

Successful crossbreeding of Alaskan reindeer with native caribou captured for the experiments, and the birth of fawns of materially increased weight.

Establishment of a Rabbit Experiment Station at Fontana, Calif., to supplement other investigations on the production of rabbits for fur and food, and progress in cooperative investigations of diseases of foxes and measures for their prevention and cure on fox farms.

Progress in research work on the food of the English sparrow, in studies of the requirements of the Wyoming elk, in the administration of other game animals and birds on reservations and in coordination of state and federal policies in wild-life administration generally. Other important measures for the welfare of life are the authorization by congress of a refuge for migratory birds in the extensive Bear River Marshes, Utah, and first steps in its administration, as an aid to conserving the wild-fowl resources of the west, and greater expedition in the work of acquiring lands for the Upper Mississippi River Wild-Life Refuge through congressional aid and through private donation of areas important to the purposes of the refuge.

Of importance to cooperative work for the control of wild-animal pests of agriculture, horticulture, forestry, stock-raising and wild game was the development, through a conference of field leaders in rodent and predatory-animal control at Ogden, Utah, of improved plans for research work and definite policies in local and general control operations. Congress has requested that there be submitted to it at the next session a plan that will operate to insure adequate control of the predatory animals throughout the country.

## MEETINGS OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS

TENTATIVE plans are now ready for the Knoxville meeting of the society to be held March 21, 22 and 23, 1929. The program will include papers on important engineering problems and visits to the rapidly expanding industries of the region as well as trips of scenic beauty.