birch bark or tops of *Artemisia*. Cottonwood leaves for toy tipis and moccasins, the green pods for beads. Pods of spider bean (Pawnee name for *Acuan*) black rattle-pod (*Baptisia bracteata*) and little rattle-pod (*Astragalus carolinianus*) for rattles. Jack-in-the-pulpit seeds were used in gourds for rattles.

Medicine.—Roots of hop, canaigre, wild four-o'clock (*Allionia*), wind flower (*Anemone canadensis*), blue cohosh, wild black currant, wild liquorice, prairie clover, sumac, purple mallow (*Callirrhoe*), sweet cicely, cow parsnip, gentian (*G. puberula*), butterfly weed, bush morning glory, ground cherry (*P. lanceolata*), wild gourd, purple cone-flower, cup plant and burdock.

Leaves of red cedar, curled dock, pasque flower, wild liquorice, spurge (*E. serpyllifolia*), sumac, touch-me-not, verbena (*V. hastata*), wild bergamot, rough pennyroyal and fetid marigold. Tops of cow parsnip, wild mint, broom-weed (*Gutierrezia*), sticky head (Pawnee name for *Grindelia*), milfoil and wild sage (*Artemisia* spp.). Flowers of lily (*L. umbellatum*) and false lupine (*Thermopsis*). Berries of red cedar, seeds of hop and sunflower.

Corms of Jack-in-the-plpit and blazing star; rootstocks of sweet flag and blue flag; bark of roots of oaks and Kentucky coffeetree; inner bark of red elm, stems of skeleton weed.

The greater number of these were steeped in water and used for various ailments, most commonly fevers and intestinal disturbances. A few, such as sweet flag and purple coneflower, were used in various ways. Cedar twigs, roots of purple mallow and cup plant were burned and the smoke inhaled for colds; flowers of false lupine were burned for rheumatism, the smoke and heat being confined to the affected part by a close covering.

Crushed leaves of dock were applied to draw suppuration, of sumac for poisoning, of touch-me-not for rash; roots of sweet cicely and cow parsnip for boils. Roots of butterfly weed were eaten raw for throat and lung trouble.

The fine stems of leadplant, rabbit foot (Pawnee name for *Lespedeza capitata*) and an aster were broken into short pieces, attached to the skin by moistening one end with the tongue, and burned for neuralgia and rheumatism. [This treatment, known as moxa, is found elsewhere and an Asiatic species of *Artemisia* is named *A. moxa.*] The collecting of roots of wild gourd and butterfly weed was done only by certain persons of the tribe.

Charms and Ceremonies.—Mystic properties were assigned to cottonwood, ash yellow lotus, wild gourd and cardinal flower. Flowers of pasque flower, spiderwort and wild rose were revered. Fruits of long-fruited anemone were used for luck at cards; seeds of columbine, love seed (*Cogswellia daucifolia*), roots of bloodroot and ginseng, roots and flowers of cardinal flower, plants of dodder and fuzzy top (*Artemisia dracunculoides*) for love charms. Sweet grass and wild sage (*Artemisia* spp.) for incense.

Poison ivy was known and dreaded. Moonseed was called "thunder grapes," "ghost fruit" and "sore mouth," while spurges and *Parosela enneandra* were regarded as of poisonous nature. The juice of red false mallow and purple coneflower were used to make skin insensible to heat. The compass plant was associated with lighting and its dried root burned during storms. Cedar boughs were placed on tipis for the same purpose.

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SCIENTIFIC EVENTS

AGRICULTURE IN ALASKA

THE Department of Agriculture's experiment stations located in Alaska have demonstrated that Alaska is not only a food-producing country but that if the latent resources of the territory are developed the Alaska wheat fields are destined to play an important part in the economic life of the nation. The twenty-first annual report of the Alaska Experiment Station is now available. When it is considered that one of the experiment stations is located in the Yukon Valley only 75 miles

from the Arctic Circle, where the yearly frost-free period is about 97 days, some appreciation can be had of the difficulties that prevail.

According to the report, the Sitka station propagates and tests, and to some extent disseminates, all manner of plants that promise to be useful in Alaska. The chief line of work at the Fairbanks station is the growing of grain, the testing of the adaptability of varieties of grain, and the dissemination in small quantities of the surplus seed grain produced. At Rampart, the chief lines of work are the production of new varieties of wheat, barley and oats by means of hybridization, the testing and selection of hybrids, and the increase of those proving valuable. Hardy alfalfa is grown, as well as vegetables, for the purpose of ascertaining the best cultural methods to be pursued. Cattle and sheep breeding work is conducted at the Kodiak station, and at Matanuska experiments are made with growing grain and sugar beets. A small nursery has also been started here for propagating hardy nursery stock for distribution in the Matanuska Valley.

In 1918 a distribution of seed grain was made to a number of farmers in the Tanana Valley in an effort to induce them to begin grain production on an independent basis. The results were so satisfactory that the experiment was repeated in 1919. In that year 22 farmers in the Tanana Valley produced 1,128 bushels of spring wheat, 2,811 bushels of oats, and 121½ bushels of barley. During the same season the station at Fairbanks produced 303 bushels of spring wheat, 774 bushels of oats, and 125 bushels of barley. A small flour mill was installed at the Fairbanks station in 1918, where Alaska-grown wheat has been milled into an excellent bread flour.

The 1918 report of the Alaska Agricultural Experiment Stations can be had upon request of the United States Department of Agriculture, Washington, D. C.

REPRODUCTION OF MICROSCOPIC UNDER-SEA LIFE

The American Museum of Natural History has reproduced in glass and wax a two-inch section of sea-bottom, with its characteristic plant and animal life, magnified more than 15,000 times. The exhibit is known as the Bryozoan Group, taking its name from the sea-animals popularly called sea-mats and sea-mosses, which it principally depicts.

The shells of these minute organisms form encrustations on sea-weeds and pebbles and on shells of larger animals. They are extremely beautiful in their intricate form and coloring. The "plumed worm" has especially fine colors. Other microscopic creatures and marine plants combine to make this group of especial interest.

The glass-blowing was done by Mr. Herman Mueller, and the coloring by Mr. Show Shimotori, while the wax portions of the group are the work of Mr. Chris E. Olsen. The entire exhibit was prepared and assembled under the expert direction of Mr. Roy W. Miner, associate curator of the department of invertebrate zoology.

MATTERS OF SCIENTIFIC INTEREST IN CONGRESS[1]

The bill for a tariff on scientific instruments, etc. (H. R. 7785) was brought up on the Senate calendar on April 5, but was passed over. On April 28, Mr. Knox offered an amendment providing for the exemption from import duty of "guaranteed disks, ten inches or more in diameter, for astronomical telescopes."

The appropriations in the Second Deficiency Act include: $75,000 for continuation of the investigation of the mineral resources of Alaska, to be available also during 1921; and $47,100 for the continuation of magnetic and geodetic work by the Coast and Geodetic Survey.

The legislative, executive and judicial appropriation bill (H R. 12610), carrying appropriations for the Bureau of Standards, passed the House on March 4, and the Senate on April 1. After agreement to the conference reports the bill was sent to the President, carrying an amendment introduced by Mr.

[1] From the *Proceedings* of The Washington Academy of Sciences.