In one experiment a five-acre fair ground surrounded with shrubs and woodland was sprayed five evenings in succession. On the night before spraying was started the mosquitoes were so numerous and vicious that many people were forced to leave the grounds about 9 P. M. During the succeeding evenings, when the larvacide was applied, discomfort from mosquitoes was insignificant and the audience was well pleased. Subsequent observations have disclosed practically no injury to the shrubs and trees and only slight burning to the grass blades.

Thus far the larvacide was found effective against the following species of mosquitoes: *Culex pipiens, Aedes vexans, Aedes sollicitans* and *Mansonia perturbans*. Tests will be conducted against other species whenever available.

The formula of the present New Jersey mosquito larvacide, which has been recently improved[5] to be compatible with hard and salt water, is as follows:

FORMULA FOR TANK PREPARATION

100 gallons kerosene containing pyrethrum extract equivalent to one pound of flowers (analyzing 0.9 per cent. pyrethrins) per gallon.
50 gallons water.
6 pounds sodium laurel sulfate (emulsifier).

The emulsifier is first mixed with the water and transferred to the tank. The oil is then run in gradually into the tank with agitators and pump working at full speed. After all the oil has been added the pumping is continued until the entire mixture has passed through the hose and back into the tank two or three times or until the mixture is thick and homogeneous, showing no free oil on the surface. The finished product is then pumped into drums for storing. This constitutes the stock emulsion. Excessive foaming may be eliminated by dissolving about two or three pounds of wool grease (Degras) in the kerosene before emulsifying. Any other suitable apparatus for emulsification can be used.

The cost of preparing the concentrated emulsion is about 23 cents per gallon, based on the present price of pyrethrum, which makes out slightly over 2 cents per spray gallon. When purchased, the stock emulsion costs from 30 to 50 cents per gallon, depending on the quantity ordered.

While this larvacide, when prepared and applied as directed, is apparently safe on vegetation, as brought out by the results thus far reported, further experiments are at present conducted in order to verify the above findings under all kinds of conditions and on many varieties of plants.

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[5] W. Rudolfs, *N. J. Agr. Expt. Station Bulletin 496*, 1930.

ORIGIN OF THE GENUS NAME RIBES

THE Latin name at present used for the common cultivated red currant is *Ribes sativum*. The genus name Ribes, for which one does not find in any of our dictionaries a derivation both adequate and correct, is derived from the Arabic through a curious chain of circumstances.

From very early times the Arabs have held in high repute a medicine prepared from a species of rhubarb native in the mountains surrounding the Arabian desert and cultivated in Arabian gardens. The Arabic name of the plant was rībās. The young stems and young leafstalks were crushed and the juice was extracted by pressure and made into a syrup by boiling slowly with an equal weight of sugar. This acidulous syrup was an article of commerce among the Arabs and its use by them was wide-spread.

I should like to be able to say that, after their conquest of Spain in the eighth century, the Arabs, not finding in western Europe the plant from which their favorite syrup of rhubarb was made, but finding another plant, the red currant, from which a similar syrup was prepared, gave to the new plant the Arabic name ribas, transferred from the much-beloved rhubarb native in their own country. I have no means to make certain, however, whether the name ribas reached western Europe from Arabia by this romantic route or whether it traveled overland, north of the Mediterranean, by some non-Arabic road. It seems clear, however, that it was from the similarity of the two syrups that the Arabic name came to be applied by early European botanical writers to their native red currants, in the Latinized form ribes. The Arabic name of the rhubarb syrup was rubb rībās or robb rībās (pronounced rahb reebahs), the Arabic word rubb standing for syrup and ribas for rhubarb. When this name was transferred to western Europe and applied by apothecaries to the syrup made from red currants, it took the form rob ribes, or the form preferable in Latin, rob ribis, ribis being the genitive of ribes, the expression meaning, literally, syrup of ribes. Then, having misappropriated the name rob ribis, doubtless unconsciously, for their own native syrup, the west-European apothecaries gave to the genuine and original product of Arabia the name rob ribis Arabum, syrup of ribes of the Arabs. A very neat and exact summary of facts about the Arabian rhubarb is contained in its descriptive designation by Desfontaines, paraphrased from the part-Latin, part-German, description by Rauwolf in 1583, "ribes Arabum, ex quo rob ribis conficiunt," ribes of the Arabs, from which they make their syrup of ribes.

When Linnaeus, coming after the early European botanical writers, published his "Species Plantarum," in 1753, he gave to the rhubarbs the genus name

Rheum, and to this Arabian rhubarb the species name *Rheum ribes,* in recognition of its ancient Arabic name, and to the currants he gave the genus name Ribes.

An excellent account of *Rheum ribes* was published by Desfontaines in 1803 in Annales du Museum National d'Histoire Naturelle (volume 2, pages 261 to 268, plate 49) and a well-executed colored illustration is given in Curtis, *Botanical Magazine,* 1898, plate 7591.

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FAULTING IN THE MOHAWK VALLEY

THE age and origin of the extensive faulting along the southern edge of the Adirondacks in the Mohawk Valley has long been a problem to investigators. It was with the object of obtaining information which might lead to a solution of this problem that the writer spent portions of the summers of 1930 and 1931 in geologic investigation of this area.

The displacements are high-angle normal faults trending generally north northeast—south southwest and cutting pre-Cambrian and lower Paleozoic formations. Most of the faults are upthrown on the western side with the amount of displacement increasing to the northward toward the Adirondacks, but dying out rapidly a few miles south of the Mohawk River.

Since the faults are high-angle (over 80°) with the hanging wall invariably downthrown, they imply tensional stresses and hence are to be correlated with periods of relaxation which usually follow the compressive phases of mountain deformations. That the faults are younger than the Taconic folding is evidenced by their displacing of not merely the Schenectady beds, which are believed to have been deposited during the compressive phase of this deformation, but of the even younger Utica shale. The fact that the faults die out to the south argues for a primary relationship to the Adirondack region. In addition, their proximity to areas to the east which show distinct folding and thrusting as a result of the Taconic revolution bears out the conclusion that the tensional stresses of the period of relaxation following this deformation were responsible for the initiation of this faulting.

During the Taconic disturbance, the forces of compression in the sedimentary troughs were relieved by folding and thrusting. In the much more resistant pre-Cambrian rocks of the Adirondacks, however, these stresses were resolved so that the eastern part of the massif was uplifted rather than folded and thrust-faulted. The greatest uplift very likely took place northward from the Mohawk Valley and away from the area of thicker sediments. After the Taconic compression had ceased, relaxational movements began, and the east and south sides of the Adirondack area were cut up by normal faults. Most relaxation occurred where the preceding compression had caused greatest uplift, and consequently the throws of these faults increase to the north. Subsequent revolutions may well have caused additional adjustments along these faults.

More than twenty-five of these faults have been mapped in detail, and it is expected that further information regarding them will be published in the near future.

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NORTH AMERICAN FISH-HOOKS

AN ethnographical survey of fish-hooks in North America made by the present writer raises an important question as to the origin of barbed hooks. Until now it has been conjectured that such hooks were introduced among the American natives by European traders.

In different museum collections there are several barbed hooks from the Aleutian Islands and from California, which are of undoubted antiquity. Those from the northwest coast are regularly barbed, whereas the Californian specimens are barbed on the outside.

From a study of these hooks I have come to the conclusion that barbs on fish-hooks might have been an aboriginal invention and that the possible line of distribution was that after the introduction into Alaska from Asia, a branching out in two directions took place—one towards the northeast, extending across the Canadian arctic shores as far as Greenland, and the other almost directly south over Yukon, British Columbia and Washington to Southern California. This is also in accordance with what we know of the migration of the peoples in the North American continent.

This possibility has so far been neglected, and it seems to me that ethnographers and archeologists in the field would do well to bear this in mind.

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THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

MINUTES OF THE EXECUTIVE COMMITTEE

THE fall meeting of the executive committee was held in Washington, D. C., on October 27, 1935, at the Cosmos Club, with the following members present: Drs. Cattell, Caldwell, Compton, Conklin, Curtiss, Livingston, McKinley, Ward, Wilson and Woods.