Ammi Visnaga Lam.—A Medicinal Plant

Extensive investigation has shown that khellin, an active principle obtained from this plant, is of value in treating angina pectoris and bronchial asthma.

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Since ancient times preparations made from the seed-like fruits of this umbelliferous plant have been employed in folk-medicine by the people of eastern Mediterranean countries. Not until recently, however, has the plant attained a relatively conspicuous place as the source of a therapeutic agent. In olden times, and even recently, decoctions prepared from the dried fruits were employed by the people of the Middle East in treating various ailments of the urinary tract. Specifically, this preparation served as a diuretic and to relieve the intense pain resulting from the presence of ureteral stones. Preparations of this drug in the form of a decoction and a tincture were introduced into the Egyptian Pharmacopeia in 1934.

The Plant

Ammi Visnaga Lam., commonly referred to as "khella" by Arabic peoples, can be found growing in many Mediterranean countries. In the United States the species has been sporadically introduced in some sections, including Massachusetts, Pennsylvania, Florida, North Carolina, Alabama, California and Oregon. During the summers of 1951 and 1952 numerous plants were grown successfully in the Medicinal Plant Garden of the Massachusetts College of Pharmacy.

Ammi Visnaga is a glabrous, erect and branching herb which attains a height of two to eight dm. The laminae of the lower leaves are decumbent and are deltoid in general outline. They vary in length from five to 20 cm. The ultimate divisions of the leaves are linear to filiform. Cauline leaves are ternately to pinnately dissected. Flowers of the plant are small, numerous and white. They are borne on filiform and unequal pedicels which are spreading at first but rigidly contracted in fruit. The fruits are oblong-ovoid to ovoid cremocarps which attain a width of 1.7 mm. and a length of 2.5 mm. upon maturing. These structures, often referred to in the literature as "seeds", are glabrous and are flattened laterally. Ribs are acute, and oil tubes (vittae) are solitary in the intervals. Each mericarp ("half-fruit") shows two vittae in the commissural portion of the fruit wall.

Derivatives

Investigation carried on by numerous research workers has resulted in the isolation of a number of impure as well as pure constituents from the fruits of Ammi Visnaga. As is commonly true in such instances some confusion has resulted from the names which have been applied to the derivatives. Some workers have used the term "khellin" when referring to a mixture of principles derived from the khella fruits, and others have applied the name to a different chemical component of the mixture. However,
Fig. 1. *Ammi Visnaga* Lam., showing the character of the foliage and the inflorescences. Notice that the small white flowers are borne in compact compound umbels. *Courtesy of Smith, Kline and French Laboratories.*