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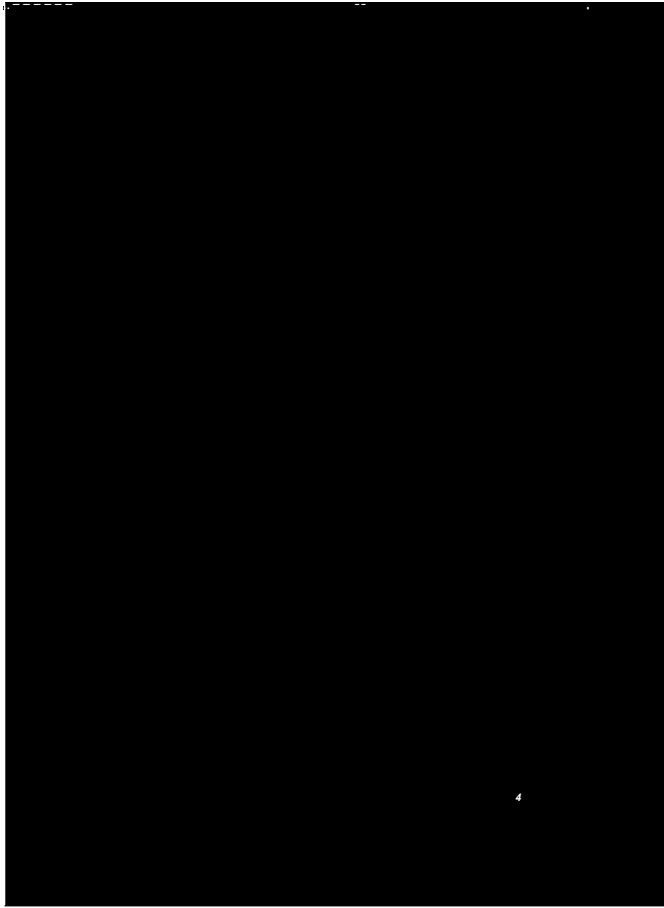
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Wild Flag and Bleeding Heart

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—Pink Bleeding Heart (*Dicentra fstrmosa*)

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Wild Flag, Fleur-de-Lis

Iris Family (*Iridaceae*)

THE scientific name is from the Greek for "rainbow," referring to the range of colors displayed in the flowers of the various species. These are too well known to need illustrating. They range in colors from white and cream and yellow to blue and purple and are found all over the state.

The delicate grass-like plant commonly called blue-eyed grass, or *Sisyrinchium*, is also a member of this family.

Detailed Description

These flowers are especially interesting as a striking exhibition of adaptation for cross pollination. It may not be possible to separate the floral envelope into sepals and petals, but it will be noted that three of them have distinct lines or a band of color or both leading toward the bottom of the flower. This is the flower's sign, as we might mark a highway, and says, " This is the honey highway, walk ye in it." When the floral envelope' is removed (upper drawing of Fig. 1) it will be seen that the three styles are petal-like and have the pollen-receptive surface, or stigma, in a little pocket at the top. The stamen is under this style below the pocket-stigma. The lower drawing, which is a section of a half of a flower, makes this a little clearer. All the parts grow from the top of the ovary, of which a cross section shows three cells with the ovules attached at the center.

It is to be borne in mind that the struggle in the plant world is to develop seeds, by which the race may be continued. Accordingly, it is essential that the pollen be placed on the stigma, from which portions pass to the vegetal egg, thus energizing or fertilizing it, and causing it to ripen into a seed. An insect coming to the flower will be guided down the " honey highway " and scrape off some of the pollen received in its visit to another flower, on the edge of the stigma. As it continues its search for the honey, it must pass under the pollen-bearing portion of the stamen, the anther, and will receive a dusting of pollen on the top of its body. As it backs out it closes up the pocket-stigma so none of the pollen can be deposited, thus preventing self pollination.

Bleeding Heart Family

(*Fumariaceae*)

THE family name is derived from the Latin meaning "smoke," probably because of the smoky odor of the roots of some of its members: "bleeding" is from the color and "heart" from the shape of some of the flowers of the family. The large cultivated bleeding heart was once always to be found in old fashioned gardens. This family is represented in Oregon by two genera, which differ from each other in possessing one or two spurs.

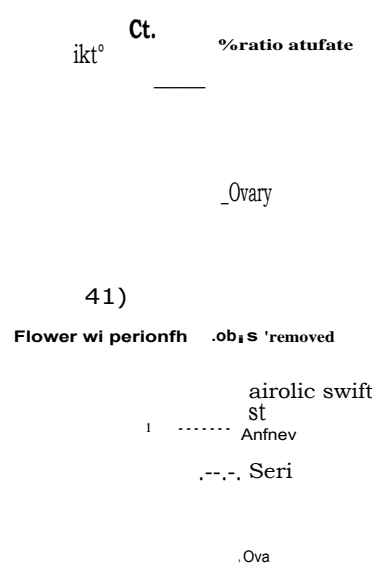
Bleeding Heart

The scientific name of the genus is *Dicentra*, meaning "two horns." The pink bleeding heart, *Dicentra formosa*, is found throughout the state. In the eastern portion is a form having white flowers tipped with yellow, *Dicentra cucullaria*, or dutchman's breeches.

These plants grow from vigorous, running, underground stems or rootstalks, and this accounts for the rapidity with which they spread. The leaves are compounded and much cut (Fig. 2 .

Detailed Description

The lower left hand drawing in Fig. 3 is of a single flower. The calyx consists of two sepals, which are not always found as they soon drop. The corolla is irregular, having four petals, two of which are enlarged and end in horns, while the two inner ones are small, spoon-shaped above, and cover the stamens. In the lower right hand drawing the floral envelope has been removed. There are six stamens united by their filaments into two clusters, designated scientifically as *diadelphous*, two brotherhoods. There is a single pistil, and a



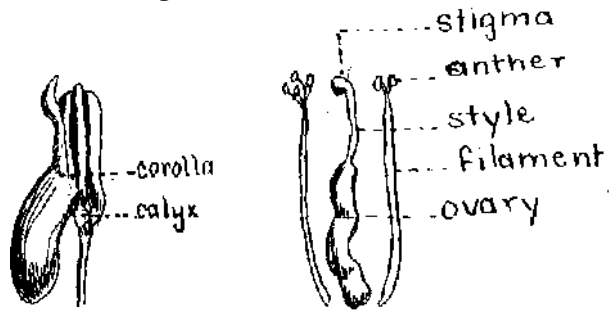
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DETAILS OF IRI S

cross section of the ovary (the middle drawing) shows one cell with two attachments on the wall, hence a compound pistil.

Corydalis

The name is derived from the Greek meaning a "horned lark." An inspection of the upper drawings of Fig. 3 will make clear that the corolla has only a single spur but that otherwise it is similar to the bleeding heart.

The pink corydalis, *Corydalis scouleri*, is confined mostly to western Oregon. The golden corydalis, *Corydalis aurea*, or in the mountains, *Corydalis montana*, inhabits eastern Oregon.



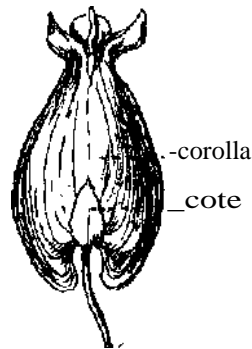
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C.S. of ovary



-corolla
-cote



Single, flower

Rsl-d and stamens

Bleeding He, art.