

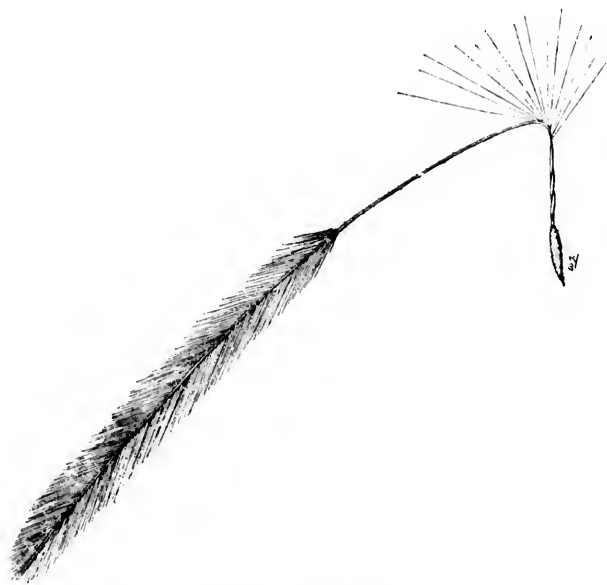
on, Bot. Calif.
 villous; leaves
 long or linear
 out 9-flowered;
 -2 long white
 capsule 1×5
 Texas; also met
 Bailey; Mass.,
 Pennsylvania,
 south Europe.
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a the main with
 escence differs
 re always more
 ntely.

Geranium, and
 rity, the two or
 to serve as an
 distinctly pro-
 very little from
erium has been

nus than in the
 ary being pro-
 above. These
 nical (bast) fi-
 er extent than
 the awn curves
 carpels remain
 ually enlarging
 supported at the
 is similar to that
 inner ones, for
 thrown elasti-
 lose helix, from
 The awn is also
 , the long loose
 raelute, favor-
 orm again when
 isture and dry-

ness. Supposing the basal point of the carpel to be slightly caught in the soil, which readily happens either as the fruit falls or when its movements begin, its withdrawal is rendered difficult by the stiff ascending hairs with which the ovary is clothed; so that while the crowding of the awn against bits of stubble, pebbles, or whatever small objects it may chance to have fallen among, tends to press the fruit farther into the earth with every movement, whether the result of moistening or drying of the awn, the probability of its withdrawal, when once caught, is small. In some experiments performed in my laboratory several years since, by Mr. E. H. Parker, it was observed that after the fruit had been buried in damp soil for a few days, the awn softened at its base, so that a pull, which otherwise might have withdrawn the fruit, merely broke away the awn,



Fruit of *Erodium glaucophyllum*, $\times 2$.

thus removing the only source of danger to the self-planted seed, a provision which was also noticed in *Stipa*, and has been recorded for these genera by Roux and Darwin respectively.

The contrivances in the fruit, therefore, are of a double nature, referring not only to its removal from the parent plant, but to its insertion in the soil when a suitable point has been reached. It is interesting to note that similar provisions are met with in widely separated genera (*Anemone* & *Pulsatilla*, and species of *Stipa* and *Aristida*), not at all related to *Erodium*; as well as in *Pelargonium*, a genus which stands very near the latter, the fruit of which is less elastic, and consequently more dependent upon the wind for dissemination, although it is ultimately planted in the same manner.