At the top end of the root there is an extremely short stem, only found when a close examination is made. It is marked, however, with rings, irregular but evident, so that we can approximately judge the age of our specimen. Even in the oldest plant, which may be many years old, this elementary stem rarely exceeds one-quarter of an inch in length.

Next the ground I find old, brown, rotten leaves which serve to protect the exposed part during the winter. These were the bright green ones of last summer. This year the leaves are long and deeply lobed, with the lobes of an irregular shape (Fig. B). The centre portion of each leaf is lower than the sides, so that when rain comes the water is guided into the root where it is needed. In moist places I find the plant has large leaves, while in dry arid spots the leaves are narrow and deeply lobed. The sun striking on the small leaf does not cause so much evaporation as it would with the larger leaf. Thus the plant adapts itself to its surroundings.

High above the whorl of leaves and the surrounding grass we have the flower head swaying on its naked pedestal (Fig. E). How the plant sends up this stalk or scape is indeed interesting. From the time the bud first distinctly appears until the seed is disseminated there is a period of twelve or more days. At first growth is slow, the scape growing from one-fifth to nine-tenths of an inch per day, for the first few days. But this amount soon increases until the maximum record is attained on the eighth day, when by actual measurement the scape grew two and a quarter inches in twenty-four hours, the greatest apparent growth taking place at night. The growth was so remarkable that I actually thought I must be at the wrong flower, until I found the mark I put upon the fast growing stem.

On the ninth day I first saw the flower open. With regard to the bud I found it and the scape covered for the first few days with a woolly substance. This, I take it, is to protect it from climatic extremes. On the bud itself I found three rows of concentric bracts, the inner imbricated (or overlapping like the shingles of a roof), linear (long and narrow) and erect or standing up around the bud (Fig. D). These protect it, for when the flower opens and closes these open and close with it. The two outer rows are erect for the first few days, but soon turn back, or reflex, and never assume the erect position again.

As the days go on the flower opens and exhibits the gaudy colors to the world. If we examine this flower head carefully we find it composed of many individual flowers, each with the component flower parts (Fig. C).

These separate and individual flowers are each of interest, for they become mature at different times and use different methods in fertilizing the seed. Those flowers situated next the erect bracts become ripe first, and their anthers ripen before the pistils are ready to receive the pollen. This is to prevent self-fertilization, which means deterioration. After these flowers on the outside have been fertilized the receptacle swells and raises those flowers in the centre, until they have developed and have been fertil-