

Strange Plant Kingdom Cannibals Thrive in Western Gardens



Frequently the subject of fiction narratives, these strange plants actually devour insects for food! On the left is the Pitcher plant, nepenthes. Figure No. 1 shows the Pitcher plant as it appears normally, while figure No. 2 shows what happens to the insects which venture within it. Figure No. 3 is the *Drosera intermedia*, or Sundew, several leaves of which have united to catch a small dragon-fly. Figure No. 4 is a drawing of a Venus' Fly Trap, *Dionaea muscipula*, while figure No. 5 gives a closeup view of the same plant. Figure No. 6 shows a picture of the *Sarracenia*, popularly known as Indian Cup, Side-saddle Flower and Trumpet Leaf, cut open to show the black mass of organic matter at the bottom which results from the plant's digestion of its captives. The photograph is of Cecil Solly, plant authority, whose interesting articles appear regularly in Five Star Weekly.

By Cecil Solly

PLANTS that trap insects; plants that swallow tiny water creatures for food—strange, fascinating cannibal inhabitants of the plant kingdom—can be grown successfully in your own backyard! Not fiction, this—though the subject has provided many a writer with a weird plot. Instead, the fascinating members of this family actually are stranger than the fiction they've inspired.

It is a matter of wonder to the gardener why there should be any plants whose main item of diet is provided by the trapping of unwary insects. Because of the quaintness of this action, public interest never fails to center around them. Eric Walther, Golden Gate Park's insect-control expert, explains that because the soil where insect-eating plants grow is too acid, the plants get less nitrogen than they need for health. They've learned, therefore—over thousands of generations—to absorb insects, which give them the vital nitrogen. All plant life, Walther says, is carefully balanced; what they cannot get from one source they take from another.

Stories usually magnify the size of the prey captured by these plants. Quite small insects are their usual captures, and never the large animals, such as lions and tigers, with which the story-weavers delight to credit them. In the fiction stories one sometimes finds a tale of how the imaginary plants stalk their game. Of course, we know that all plants must stay where they are rooted, and by some method of attraction draw the unsuspecting small insect into the trap.

IN most parts of the world it is a popular fallacy that all plants of this order come from tropical countries and can only be grown in greenhouses. This notion has undoubtedly been brought about by the fact that all the *Nepenthes* or Pitcher plants, showiest of the flesh-eaters, are truly tropical. They require a minimum temperature of around 65 degrees, F.

Here in the west, we all know the Pitcher plant that will grow out-of-doors and was found originally in some of the marshy districts of California. It is well known there under both the name of Pitcher plant and California Side-saddle flower. Today, this and other carnivorous plants are grown out-of-doors with perfect safety as far north as British Columbia, although they sometimes require a slightly protected position. They must, of course, be grown in a spot which is as much like their native habitat as possible.

This particular plant, the *Darlingtonia Californica*, captures rather large insects by tempting the victims to enter the trap. The mouth of the Pitcher is completely covered by a large hood of a reddish or purplish coloring on green, but liberally provided with patches of translucent tissue. Any flying insects that enter the trap batter themselves against the interior of the hood, mistaking the bright patches for openings. They continue this fruitless endeavor to escape until they fall exhausted into the bottom of the Pitcher and are duly digested.

Another well-known native—the *Sarracenia*—is found in many sections of this country and known as the North American Pitcher plant. It captures insects by a process similar to that of the *Darlingtonia*. The trap is slightly different. The mouth is protected on the inner side by downward pointing spines. Honey is exuded by glandular hairs above the orifice. To render the apparatus more effective, the inner walls of the plant are lined by cells that have an enamel-like smoothness, which provides no secure foothold for any insect that ventures on them.

THE Venus Fly-Trap, or *Dionaea*, one of the Greek names for Venus, is a native of the swamps of North Carolina and other southern states.

There have been many fables woven around this

plant. It is one of extreme interest to gardeners, owing to the irritability displayed by the fringes on the winged leaves. The leaf is divided by the mid-rib into two nearly semi-circular halves. Each half is fringed with stiff hairs and exactly resembles a miniature rat-trap. When the hairs are touched by a fly or other insect, the sides of the leaf are brought together with a sudden snap, imprisoning the intruder!

Although it is to be found in very few gardens in this district, the *Drosera Rotundifolia*, or common English native Sundew, does very well here. It is found in England in bogs and wet, peaty places. It is not at all a difficult plant to grow, providing it can be given similar garden conditions. It is a small plant; only six inches high when in flower. It spreads its neat rosette of long-stalked, almost circular leaves flat on the ground. Every leaf is covered with wine-red filaments, each with a viscid gland at the tip, and looking like so many red pins in a pin-cushion.

When an insect lights on these filaments it is

immediately held by the fluid. The more it struggles the more it is covered with the sticky substance. The filaments slowly close in on the insect, taking two or three hours to complete the job. By that time it is pressed securely into the center of the leaf and gradually dissolved and digested by a secreted fluid.

THERE are several native species of the Butterwort, quite common on the east coast from New York to Florida. They are curious and beautiful little plants named from the Latin word *Pinguis*, meaning fat, referring to the greasiness of the leaves.

They are marsh plants and refuse to exist out of their native habitat. Therefore, great care is necessary to grow them in a garden here, although if conditions are duplicated and the plants healthy their beautiful flowers are the admiration of every beholder. The plant traps small insects by means of the greasy excretion on its leaves.

There are many forms of the genus of the

curious aquatic Bladderwort, or Lobster-Pot, to be found throughout the United States. They are submerged aquatics, with multitudes of small bladders, each with a tiny opening protected on the inside by stiff hairs, arranged much like the interior mouth of a lobster-pot. These bladder-like appendages aid the plant to float or sink, as desired, and also entrap minute water creatures.

It is particularly interesting that during the early stage of the plant, the small "bladders" at the roots are filled with water; but, when the flowers are ready to expand, they become filled with air. After the season of flowering the vesicles become again filled with water, and the plant descends to ripen its seeds on the bottom.

All of these plants incidentally will bring additional interest to the home garden. They are not so easily grown as some of the better-known plants, but the additional care will be repaid by the results. There is always something attractive about the unusual.

Reno Preacher Says: "Self-Pity is Losing Game"

Can't Concentrate on Miseries and Pleasant Things at Same Time, Famed "Sky-Pilot" Advises

FOR a quarter of a century, Brewster Adams, beloved Baptist pastor of Reno, has known all phases of life. City folk and desert dwellers; wealthy and poor alike call him "friend." Out of his great store of rich, human experience, Brewster Adams is writing these stories for readers of Five Star Weekly. And they're stories you won't want to miss. Watch for the Reno preacher's sage comments and colorful anecdotes. They will be a regular feature of Five Star Weekly.—Editor.

By BREWSTER ADAMS
(For 25 Years Reno's Baptist Preacher)

IF you want to get down so low that you have to reach up to scratch a worm . . .

If you want to dig a pit for yourself, a grave with little chance of resurrection . . .

If you want to have folks say about you, "I knew her when she was very nice" or "he used to be quite a man" . . .

If you want to put yourself out of the game and sit on the sidelines . . .

If you want to be miserable and wretched, neither amiable, agreeable nor attractive to others, then . . .

Just start being sorry for yourself. It's the sure way to unhappiness!



Brewster Adams

SELF-PITY is a concentration on our miseries. It shuts out everything pleasant. Two things are too many to think of at once! It can't be done. I try to tell my good wife that I can't write this and be reminded that the house is cold at the same time. She must choose between a humble coal-heaver and a man who is up on the football scores "Yes, my dear, I'll fill the hod."

But, as I was saying before this interruption, you can't enjoy your misery and remember your blessings at the same time. These blessings are as sensitive as the fellow who puts little in the box. Ignore him and he never comes again.

"Poor me" leaves me poor, indeed. It not only leaves us forlorn but alone. A good friend is willing to bear our burdens with us, but not even Christ asked to share our complaints.

Sympathy is a fine word. The lexicon will tell you that it implies some degree of equality, kindred, or unity, while pity is a feeling for those who

are weaker or inferior to ourselves. Just as the Democrats may feel pity, but have no sympathy, for us Republicans.

PITY makes us the under dog—which reminds me of our old English setter, Sam. He used to come into the house and after making several turns, reminiscent of wolf days and deep grass, would lie down before the fireplace with a sigh of deepest content. He had everything—family, fire and food. A dog-gone good dog.

But you could talk him to tears, plaguing him with pity. "Poor, old Sam. Poor, old boy," you said it with mournful tone. He would look up with those sad eyes of his, groan with a low lament and slowly come up and put his head on your knee with a whimper of weeping as plainly evident as though he were shedding tears.

If you haven't a good dog (if not, I am sorry) try it on the children or even on yourself. "You poor little dear, did somebody abuse you? Does nobody love you?" Certainly, you can get anybody crying and, what is far worse, you can make yourself cry.

Folks do that to children and wonder why they become cry babies. Contrast that with a friend of mine who takes his small boy hunting ducks, puts him out in a cold box in the tules and says to his friends, before the lad, "Bobby can take it. Cold or wet or wind, he never cries." And Bobby would freeze before he would let out a cry. The ducks may squawk, but not the lad.

Bobby is apt to be quite a man. He hasn't shot any ducks, although his dad credits him with some when both shoot at the same time—for encouragement. I remember when out with my small son a couple of ducks dropped in. I whispered, "You take the one on the right and I'll take the left." Thinking it might disappoint the lad to miss, I shot at his bird. It dropped and mine got away, I missing on the second shell.

It was disconcerting, but really funny, to have the boy speak up, "Dad, you missed yours. Next time I had better take them both." That confidence was just what he needed. Up to then, he had always pitied himself because he couldn't get them. We all miss them, but crying never helps our aim.

THERE was "Squeak" Harriman! . . . I beg pardon, it is now Mr. Harriman, prominent in business, school, bank and club in Elko. He has

about as many friends as a man could have who sells automobiles.

When Squeak—Mr. Harriman I should say—was in the University of Nevada he was one of our best linemen. But he was too amiable. He seemed to feel sorry for his opponent and careful for himself. The boys used to frame on him and one of his own team would catch him in the pile-up and administer some gentle little football gesture—nothing serious, perhaps a kick in the face, or a cleat in his stomach—and presently they had one of the best linemen Nevada has ever boasted.

Strange, how some folks seem to enjoy misery. There was little Rachel whom I knew down in the slums. Like a lot of people who are well off, but still live in the slums of depressed mind, she once asked of me:

"Mister Adams, have youse seen de play over at de Bowery Theater? Youse ought to see it. It's de saddest show for ten cents dat I ever seen."

Seems humanity has always let itself down by being sorry for itself. Dust off the Old Book and read of Elijah, the prophet, who laid under a juniper tree, lamenting that he was the only good man left and nobody appreciated him.

"I, even I only, am left, and they seek to take my life." And the Lord rebuked him for his woe-fulness.

"Elijah, go forth and stand upon the mount. . . I have left me seven thousand in Israel, all the knees which have not bowed unto Baal."

YOU see, the trouble was the prophet "got down," and there is no profit in that. Contrast that depression with David, the sweet singer, who "encouraged himself in the Lord" as the Psalms say.

How much better it is to give ourselves a break—even to imagine ourselves to be pretty good folks.

It wouldn't do for me to advocate betting. My folks taught me that if I was a good boy I wouldn't bet, but a lot of my friends say that a man who doesn't bet is no better (I'll bet the printer spoils that one).

But as a preacher who sees so many giving themselves the worst of it, I would take a chance on saying, as all clean sportsmanship requires and all good sense dictates:

"Never bet against yourself to win."