

7 to 9 inches across its face as now transformed by him.

He doubled the size and multiplied almost infinitely the colors of the *Gladiolus*; and because of the extra weight of the flowers had to increase the size of the stalk which bore them. He produced the Shasta Daisy from the two insignificant parents shown below.

And there is hardly a flower which grows to which in some way or another Mr. Burbank has not added size, or brilliancy, or delicacy, or shapeliness, or scent.

Through flowers, too, Mr. Burbank has ferreted out many of the deeply hidden secrets of plant life which he has turned to good account in his breeding of the so-called useful plants.

For, above all other forms of plant life, flowers exemplify Nature's devices for self-improvement.

Mr. Burbank says that the flowers, as if knowing that they depend upon butterflies and bees for the pollination which is to perpetuate them, advertise for these little pollen carriers—adver-

tise through their colors, their scents and the nectar which they give in return.

And that those flowers which are the biggest and brightest and the most perfect of their kinds, being the best advertisers, are surest to attract the attention of the visiting insects—and thus are surest of perpetuation.

While the pale, the poor and the deformed of the species, with less effective advertising, and less appeal to the insects upon which they depend, are apt to wither and die without offspring.

By the same simple, elemental methods which the bees teach, the plant breeder can accomplish definite, concrete, amazing results—of which Nature, after centuries of ponderous work, has only succeeded in giving the faintest hint.

Beside the bees and butterflies, Nature, in many ingenious ways, strives to carry on her slow elimination of the unfit.

Her rainy seasons serve to drown certain of her plants that are unworthy to survive.

Her windstorms, droughts, freezing spells and a hundred other influences

tend to eliminate the poor, the weak and the deformed among her plants.

So that those which have the greatest right to survival may be given the best opportunity—uncrowded—to live—and reproduce—and multiply.

Again the skill and science of the breeder of plants may be applied to produce in a single season the result which Nature might never, with centuries of wind, and snow, and hail, and drought, and rain, be able to accomplish.

By planting a thousand, or a hundred thousand seeds, the plant breeder, in a few brief weeks, may select the six or the eight or the ten resulting plants which show their superiority over their fellows—**along the line he wishes to cultivate.**

To those who have seen Luther Burbank at his work, his amazing skill and knowledge of the characteristics of the useful plants at once become evident; but as he goes about among his flowers, his tenderness and sympathy in handling them give evidence of more than skill and knowledge—they give evidence of love and of perfect understanding.

Luther Burbank's Shasta Daisy



—and its Tiny Parents