

ASTERS: A STUDY IN VIOLET PURPLE

Loveliness and Utility of One Of the Common Weeds.

A REAL WESTERN BEAUTY.

"Golden Rule for Flowers" Teaches The Co-operation of Kingdoms Of Nature.

One of our most refined ballads begins: "In the sweet calm of this September day I pass along the paths we two have trod; And still upon the dear familiar way blooms the blue aster and the golden-rod."

NOV BLOOMING EVERYWHERE. Our own asters and goldenrods, how-

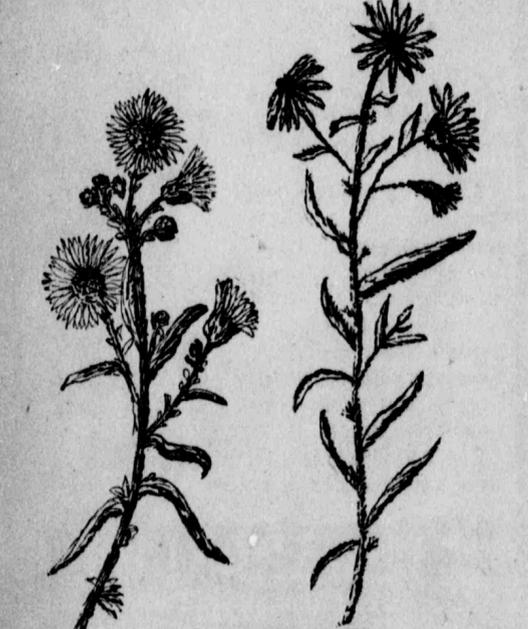


A RAY AND A DISC FLOWER. Of the Aster, Enlarged Six Times, from Pen Drawing by Pupils.

The time necessary for this operation varies from a few hours to a few days in most species, while in others it may require months.

THE GOLDEN RULE.

Now, in the aster and in the other composite, the pistil projects above the stamens, so that the pollen dust cannot reach it, and the help of the insect tribes is necessary. Not only do none of us "live unto ourselves" as the



TWO OF THE WILD ASTERS.

At the left, "Aster Fremontii," with lavender colored rays, soft leaves and smooth stems. At the right, "Aster oblongifolius," with violet rays, stiff leaves and rough stems. Drawn from nature by Seventh grade pupils of the State Normal Training school.

ever, bloom chiefly in October. The former are to be found on every hillside, in every canyon, beside many of the city sidewalks, and along all the waysides of the country places. Even the sunflower does not dispossess this charming and dainty mass of violet-purple bloom; for upon venturing into the midst of the sunflower field, it was found that the latter had not entirely usurped the soil, but that in between the tall bell-shaped patches and covering the hills and bare places were bunches of a plant from a few inches to a foot or so high, that exhibited a beauty as lovely and delicate as that of the sunflower and bold and commanding. This was the aster, in three varieties, most usually of a deep violet-purple color, but passing through shades of lilac and lavender to a pinkish white, and sparkling like colored stars at the top of elegant green foliage.

The aster is celebrated in song and story, and is certainly worthy of the literary homage it has received. A little close observation finds that this delicate specimen of wild weed improves upon acquaintance. The method of nature-study classes at the university was to approach it in this way:

A GENERAL VIEW.

What is (to you) the most striking feature of the plant? What shades of color do you see in the flowers of various specimens? How does it compare with the sunflower as to size, strength, texture, and duration of its stem? In the position, shape, size, and number of its leaves? In the presence of smaller leaves (bracts) on the upper stems? In the nature of its surface, whether rough or smooth, hairy or glabrous? Consider the flowers—the number, shape, and size of its heads; the number, color, size and shape of the ray flowers; of the disc flowers; the flower cup, or involucre that contains the head of the flowers, as to its cylinder-bell shape, and the number of rows of small leaves that form it. As to the worth of this weed—is it ornamental? Should it be exterminated? Stripped of its blossoms? Or let grow and flourish? Have you seen others like it, but with more numerous ray flowers? These are the erigerons, the feathery of the eastern states. They bloom in great profusion earlier in summer and in spring.

A CLOSE STUDY.

Coming to finer distinctions, observe the stem, more closely—almost woody (suffruticose) at the base, and therefore perennial; the leaves—long and slender (linear); the flower-stalks that arise from the axils, or inner angles, of the leaves; the peduncles, or flower-stalks, into which the flower-stalks divide; the involucre with its small scales closely appressed forming the cylindrical bell; the oblong linear ray flowers without stamens, but with bristly pappus, or calyx down; the disc flowers (use a lens) with yellow style projecting like a two-tined fork; and the seed, which, resembling a small pea, three times as long as wide. Now comes something of more interest.

WHAT POLLEN GRAINS DO.

Fertilization is the process by means of which the seed is made fertile or ready to grow, through the operation of the pollen grains in penetrating the pistil and entering the ovule, or young seed.

The familiar yellow dust of the aster, of sunflowers and bitterweeds is borne by the stamens, and is the special stimulant which is necessary to cause the seeds to grow, and without which the ovules, or young seeds, simply shrivel and die. Little sacs (anthers) contain the pollen dust, which is most commonly yellow or brown in color, but may be red, green, blue, whitish, or even black, and the grains are of various shapes, with unique markings, when seen under the microscope. Each pollen grain, delicately coated with oil, is filled with a liquid of a most nutritious kind, and is the flesh-forming food of the honey-bee, the bee-bread also of the young grubs in the hive. When a pollen grain falls upon a pistil, the grain sends forth a minute tube that penetrates the pistil and carries this fluid down to one of the ovules below, which it finds with unerring aim and enters at an opening which every young seed provides for this purpose.

Scriptures make plain, but even the flowers cannot do so. Selma Gaye declares that the golden rule for flowers is: "Get fertilized; cross-fertilized if you can, self-fertilized if you must." It is the insects that do for these flowers, what the latter cannot do for themselves. Creeping insects are not, as a rule, useful visitors for flowers, and various are the devices which the latter exhibit to keep them out. But flying insects of all kinds, even to the smallest flies and midges, get dusted with the pollen and carry it to another flower. The beautiful ray-flowers of the aster have no style and stigma, hence their seeds cannot be fertilized, but remain sterile; while the inner or disc flowers develop fertile seeds. What, then, are the lovely ray flowers for? They tell the bees and butterflies that the aster has something good for them—a tiny drop of nectar at the base of each corolla tube. Now, since this nectar is of no use to the flower itself, it must be put there simply to attract the winged tribes—a bait to invite its friends to a feast of pollen and nectar, for these friends are highly serviceable to the plant. The nectar is hidden deep down in the flower amid the compressed heads of the composite order, so that ants, beetles, worms and other creatures without wings can barely get at all reach it. But the bees, moths and butterflies push their long tongues down into the flower tubes and drink up the nectar. As they do so, they get covered with pollen dust from the stamens which cling around the pistil. All bees are hairy, the hairs themselves often being bristly or webbed, while the rough or spiny pollen grains cling all the better for the surface devices of their own coverings. The bee has to visit many flowers before its crop is filled with nectar, and in so doing carries the pollen from one flower to another, chiefly to the same kind of flower on any one visit, and so performs for the flower the great service of sprinkling every pistil with its own kind of pollen grains, since any other kind would be useless.

The accompanying drawings by the pupils of the state normal training school will make more clear the technical matters in the description, while a simple observation of the delicate colors of these fine weeds now covering many of our otherwise waste places, will amply justify the words of the poet:

And still beside the shadowy glen She holds the color of the skies; Along the purpling wayside steep She hands her fringes passing deep, And meadows drowned in happy state Are lit by starry eyes. "Asters," by Dora Read Goodale.

HUMAN BLOOD MARKS.

A tale of horror was told by marks of human blood in the home of J. W. Williams, a well known merchant of Bac, Ky. He writes: "Twenty years ago I had severe hemorrhages of the lungs, and was near death when I began taking Dr. King's New Discovery. It completely cured me and I have remained well ever since. It cures Hemorrhages, Chronic Coughs, Settled Colds and Bronchitis, and is the only known cure for Weak Lungs. Every bottle guaranteed by Z. C. M. I. Drug Dept., 112 and 114 So. Main St., Druggists, 50c and \$1.00. Trial bottle free.

OGDEN AND RETURN, \$1.00

Via D. & R. G. Sunday, Oct. 21.

Leave Salt Lake 10:25 a. m. and 1:45 p. m. Returning leave Ogden 7:00 p. m. Street cars to the mouth of Ogden Canyon direct from the Union Depot.

Mince pie made from Mount's Mince Meat is the seasonable delicacy.

Dr. Talmage's new book, "The Great Salt Lake (Present and Past)," should be in the hands of every educator. The amount of information it contains relating to the great saline sea, makes it an invaluable work for reference or study. Deseret News Book Store, Salt Lake City, Utah.

Tomb of Virginia's Founder.

Captain John Smith's Body Lies in Ancient St. Sepulchre—The Soul of the Great Englishman Goes Marching On.

IT HAS taken 200 years for Capt. John Smith, the real founder of Virginia, to attain his proper place in history. The Jamestown exposition to be held on the shore of Hampton Roads in 1907 will prove to be a partial apotheosis of this great Englishman. It is more than probable that by the time 1931 comes around the people of the state of Virginia will fittingly memorialize the three hundredth anniversary of his death.

Since 1631 his mortal remains have reposed in quaint old St. Sepulchre, in the very heart of London. It was an old church when he was buried there, dating back as far as 1096. The Hon. R. Walton Moore, a distinguished member of the Virginia bar, who has a highly developed faculty for unearthing historic lore relating to his native state, while in London recently, endeavored to learn what new facts he could regarding the last years of the great governor of Virginia and admiral of New England. "I believe," says Mr. Moore, "the facts relating to the last years of Capt. Smith's life are rather vaguely known and that there is no record of the place of his death. It is beyond question, however, that he resided in the parish of that church and we may suppose that when he had become a broken and lonely man, and was approached the end of life's fitful fever, he found within its sacred precincts the peace for which he longed."

St. Sepulchre is one of the oldest church edifices in London. It was first built in 1096 and rebuilt in 1440. The woodwork was destroyed by the great fire of 1666, but the walls remained, and the task of restoration was quickly undertaken and completed. Its organ, which is said to be one of the finest in London, dates back to 1570. The church has an interesting relation to the ancient part of London in which it is located. Near by was Newgate prison, and it was the duty of the bellman of St. Sepulchre to ring a bell outside the cell of anyone confined there condemned to death at midnight on the eve of the execution, and at the same time recite the verses whose concluding lines are:

"And when St. Sepulchre's bell in the morning tolls, The Lord above have mercy on your souls. Past 12 o'clock."

The bell itself, which is really a small metal anvil, is kept in the church, although disused for many generations. It was also the custom for the cart which carried the condemned man from Newgate to the place of execution to stop at the church in order that he might there be presented with a flower which it was intended he should wear to Tyburn. The last man who wore the St. Sepulchre funeral flower was a disciple and follower of the notorious Jonathan Wild. As for the local setting of the church, it may be mentioned that not far off is St. Paul's cathedral, that within 100 yards is the Old Bailey, and that within eight is the open space where the martyrdom of so many brave Arco (German) systems. Signor Marconi himself is attending the conference as the delegate from Montenegro.

some has been attributed the first complete translation of the Bible into English. He declined a pardon offered upon condition that he recant, saying, "That which I have preached will I seal with my blood," and, to quote the historian, Milman, "passed on, not as to his death, but as to his wedding." The roar of the traffic of modern London reaches the church from Chesham, from the Strand, from Fleet street, from Ludgate Hill, from the Smithfield Market, and about it, over the less known thoroughfares that hem it in, with its school-house and yard of flowers, clamors the varied and incessant activity of the busy city.

"I found," continues Mr. Moore, "the church closed, but managed to arouse the headie, who is the most curious looking little old man; attired in gold lace, and plumbeous dress of his office, that has ever lived outside of the books of fiction."

"He, mumbling things I could not understand, called the vergier, who admitted me and never dreamed of leaving me a moment after learning that I was a Virginian and attracted to the parish of that church and we may suppose that when he had become a broken and lonely man, and was approached the end of life's fitful fever, he found within its sacred precincts the peace for which he longed."



TO BREAK WIRELESS TRUST.

Delegates representing 31 governments are now assembling in Berlin by invitation of the German government with the object of reaching a common agreement for an exchange of messages between the users of various wireless telegraph systems and to define the basis on which private wireless companies may operate with the consent of governments. One of the most important matters to be settled by the conference will hinge on the Marconi company's refusal to interchange with the Slaby-Arco (German) system. Signor Marconi himself is attending the conference as the delegate from Montenegro.

Without Alcohol

- A Strong Tonic . . . Without Alcohol
A Body Builder . . . Without Alcohol
A Blood Purifier . . . Without Alcohol
A Great Alterative . . . Without Alcohol
A Doctor's Medicine . . . Without Alcohol
Ayer's Sarsaparilla . . . Without Alcohol

the church by the memory of Capt. Smith. The body of the founder was undoubtedly borne into the church that day of his burial in June, 1631, after the weariness of mortality had finally overtaken him, through the same iron gate which was opened to me, across the splendid fan-vaulted porch into the church, and was then laid away under the chancel. To mark the spot a gray stone slab was placed over it bearing heraldic devices and a rhyming tribute to his exploits and virtues. All that was originally figured or written on the stone has been worn away, except that the vergier assured me, when he had knelt and carefully brushed away the dust, that he could discern the three Turks' heads which we know were carved on the escutcheon.

The slab has been removed from its first position to one of the aisles, and in the wall opposite to it has been placed a brass tablet in a wooden frame, which repeats the inscription which the stone once bore, beginning: "To the memory of his deceased friend, Captain John Smith, sometime Governor of Virginia, and Admiral of New England, who departed this life the twenty-first day of June, 1631. 'Accordiamus, Vincere est Vivere.'"

Following this are 26 lines of verse, as follows: Here lies one conquered that hath subdu'd large territories and done things, Which, to the world impossible would be. But, that the truth is held in more esteem. Shall I report his former service done In honour of his God and Christendom? How that he did divide from Pagans three Their heads and lives, types of his chivalry. For which great service in that climate done, Brave Sigismundus, king of Hungarion, Did give him as a coat of arms to wear.

These conquered heads, got by his sword and spear. Or, shall I tell of his adventures since Done in Virginia, that large continent? How that he subdu'd kings unto his yoke, And made those heathen flee, as wind doth smoke. And made their land, being of so large a station, An habitation for our Christian nation, Where God is glorified, their wants supply'd; Which else, for necessities, must have dy'd. But what avails his conquests, now he lies Interred in earth, a prey to worms and flies? O! may his soul in sweet Elysium sleep, Until the Keeper, that all souls doth keep, Return to judgment, and that after thence. With angels he may have his recompense. In conclusion, Mr. Moore says:

"Nearly opposite the slab on the other side of the aisle is the pew occupied by the lord mayor of London, when once a year he goes to St. Sepulchre on Sunday, riding in his state coach, preceded by the city marshal on horseback, and attended by sheriffs and aldermen. "They all wear their robes and insignia of office, and an iron sword rest is attached to the end of the pew to hold the lord mayor's sword while he is at worship. The secretary of the British museum and some of the subordinates are, as I found, well informed touching the colony of Virginia and its founder, and can be believed that these London officials are so well informed, and that when they make their annual pilgrimage to St. Sepulchre, they fail to recall something of the shining services rendered by Smith to the cause of human progress?"

"The church records prior to 1632 have been destroyed, but I had it from the vergier that investigation of such records as exist show that since that time the church has furnished a last resting place for more than eighty thousand persons. As many as fourteen hundred and ninety-five of those who perished in the great plague were buried there, the number one day reaching forty. In all of this silent company the name of just one man stands out conspicuously—the name is so constantly in the minds and on the lips of Virginians in this anniversary time. I talked with the vergier for an hour in the half light and cool shadows of the church, the heavy English walls dulling the sounds of the throbbing world outside, and then I went away realizing that no other spot in London can ever have for me quite the same interest as the burial place of the Virginia soldier and statesman who has been sleeping there nearly three hundred years."

IS THE MOON INHABITED.

Science has proven that the moon has an atmosphere, which makes life in some form possible on that satellite; but not for human beings, who have a hard enough time on this earth of ours, especially those who don't know that Electric Bitters cure Headache, Biliousness, Malaria, Chills and Fever, Jaundice, Dyspepsia, Dizziness, Torpid Liver, Kidney complaints, General Debility and Female weakness. Unequaled as a general Tonic and Appetizer for weak persons and especially for the aged. It induces sound sleep. Fully guaranteed by Z. C. M. I. Drug Dept., 112 and 114 So. Main St., Druggists. Price only 50c.

Enquire of J. E. Wilson, manager, about evening class in pattern making, 323 West First North. The 25 to 50 per cent Discount House Furnishings will be given until further notice at the I. X. L. \$2.00 buys a \$3.00 grade, \$5.00 style. McCARTY HAT CO., Wilson Hotel Annex.

Do you know that \$2.00 a week will bring a good Piano in your home, that you will own. N. Y. & Western Piano Co., 62 Market St.

DEMOCRATIC STATE TICKET.

For Congress, ORLANDO W. POWERS of Salt Lake County. For Justice of the Supreme Court, J. W. N. WHITTECOTTON of Utah County.

COUNTY TICKET.

For State Senators, PHILIP S. MAYCOCK, L. E. HALL. For Representatives, C. P. OVERFIELD, STEPHEN L. RICHARDS, DAVID J. WILLIAMS, SAMUEL RUSSELL, THEODORE TOBIASON, WILLIAM W. RAY, PERLEY A. HILL, MAHONRI SPENCER, ALAN L. LOVEY, JACKSON B. ALLEN.

For County Commissioners.

Long Term, JOHN CLARK. Short Term, THOMAS H. QUILLAN.

For Sheriff.

JOHN F. HOWELLS.

For Clerk.

ALBERT J. SEARE. For Recorder, STEPHEN L. MOYLE.

For Auditor.

MAXWELL B. BROTHERS. For Treasurer, LAWRENCE H. YOUNG.

For Attorney.

ASHBY SNOW. For Assessor, JAMES E. LYNCH. For Surveyor, GEORGE M. BACON.

SALT LAKE PRECINCT.

For Justice of the Peace, HARRY S. HARPER. For Constable, SAMUEL ALLEN.

When Afflicted

Get the benefit of recent discoveries in medicine.

Is none too good.

Dr. Orrin Powell's Nerve Tablets. The very latest treatment for Nervous Debility, Insomnia, Melancholia, Failing Memory, Impaired Energy, Physical and Mental Weakness. A positive cure guaranteed by the manufacturers through their agents, who are under instructions to refund your money if not satisfied with results. Price \$1.00 per box; six boxes for \$5.00. At all drug stores or by mail, securely sealed. Address Doull Bros, Salt Lake City, Utah, sole agents for the United States.

Chesterfield Rain Coats

May properly be called the every hour garment

They are equally serviceable for rain or shine. Now is the time you need one. Our salesman will be pleased to show you rain coats that cannot fail to please and do their whole duty. Prices

\$18.00 to \$35.00

GRAY BROS & CO.

154 MAIN ST.