

## Floriculture.

### THE DEAR CHRYSANTHEMUM.

After the summer flowers are gone—the daisies and the violets, the morning-glories sweet as dawn, the roses which no heart forgets—

the autumn's crisp and spicy air, while yet the frost is just before, their faces lifting bright and fair, behold a throng at winter's door!

They dare him, with their laughter gay, to enter, bringing ice and snow, they bid him wait, and day by day, the traver grows their splendid show.

Oh! radiant, rich chrysanthemum, we love thy reign, thy spell we own! Still linger, though the birds are dumb, and woodland ways are chill and lone.

Do not be dismayed by this long name. It designates a peculiar class of flowers, one which is particularly interesting to the student of vegetable biology, and illustrates one of the most curious ways in which nature struggles against the extinction of a species.

Cleistogamous flowers are flowers without petals, which are self-fertilized in the bud before the calyx opens, and which follow, during the summer and early autumn, the complete flowers with petals which cease to appear after their early flowering season is over. They may be regarded as ordinary flowers arrested in growth, so that they never open; the pollen of the anthers fertilizes the pistil within the enveloping calyx and seeds are thus produced.

Take, for example, the common violet—*Viola cucullata* V. pedata, V. sagittata and others. The complete flowers very rarely indeed produce seed. Examine them and you will be surprised at the absence of pollen and the usual floral organs or reproduction. It took as close and painstaking an observer as Mr. Darwin to discover that violets, as we know them, ever gave seed. He found they do in very rare cases. They descend for seed production on their cleistogamous flowers—aborted flowers that are hidden out of sight at the bases of the clustering leaves, as if the plants were anxious they should not be seen. Sometimes these pale, colorless blossoms, lie close to the ground or are even buried in it. If we force them open we find within the cap-like calyx a few anthers laden with pollen grains, and the pistil—the necessary organs to make a flower.

The name for this class of flowers is comparatively new, but the fact of their existence has been known for many years. Salmon, a writer of the time of Queen Anne, nearly two centuries ago says: "The flower of the violet consists of five petals, and a short stalk; after these come forth the round seed vessels, standing likewise on their short footstalks, in which is contained round white seed, but these stalks rise not from the stalks in which the flowers grew, but apart by themselves, and being sown, will produce others like unto itself."

So, if you see a seed capsule on a violet plant you may be quite certain that it was none of the pretty blue blossoms that produced it, but that some pale, wan, deformed flower buried in the mould, or laying its head close to the earth—a flower you would notice as "queer" and regard, perhaps, as what it is, a floral abortion or monstrosity—was its source.

It is quite likely that it was in the violet—which is the most common plant added to the cleistogamic habit—that this peculiarity was first noticed, but within the past thirty years quite a list of plants bearing this class of flowers has been made out. The seeds of cleistogamous flowers are quite numerous, so much so in fact, that some anthers bear only about twelve pollen grains. It is thought possible one grain may perhaps fertilize more than one ovule.

The seeds produced by cleistogamous flowers are contained in a three-celled capsule, and when the seed has matured in all the valves the latter contract, pressing the seeds out, which then fly out much as a bean flies from the fingers when pinched. There is a popular saying in England that the violet "breeds fleas." This no doubt originated from the brown seeds being ejected in this way.

Mr. J. L. Taylor, in his "Sagacity and Morality of Plants," says the cleistogamic habit is "an act of floral bankruptcy," an evidence of poverty, indicating the inability on part of the plant to expend much energy in inflorescence. It costs comparatively little to paint the corolla; to provide these gay petticoats with the pollen necessary for seed production is impossible. Ordinarily, nature abhors self-fertilization, and takes infinite pains and resorts to many odd devices to prevent it. Here poverty compels her to it, and to resort to a strange method of saving every precious pollen grain. My Taylor says:

"In this bitter fight with poverty, there is a touching episode savouring of humanity. As much of the old show is kept up as the plant can possibly afford, and there are few species which do not bear ordinary flowers, as if nothing were the matter, while the dwarfed and aborted cleistogamic flowers are hidden out of sight as if the plant were anxious they should not

be seen. The best possible is put on the case, and often not without good results for the occasional crossing the conspicuous flowers get enables the seeds to gain back some of their old vigor or to stay off the evil days of extinction in which pure cleistogamism might end. The conspicuous flowers are not borne every year by some plants—they cannot afford such a luxury. And one or two kinds bear flowers which are of no good whatever for they are never found fertile, so in their case we must regard the habit as a survival, or as an indisposition to give up the old floral life and rank."

### GARDENING RULES.

Keep your flower pots washed clean. If old ones, paint them. Small wooden boxes, if no pots can be had, are much better, especially if painted, than tin cans. A little box, with clean sand, always comes in nice for sticking cuttings in. Pick off all flowers as fast as they fade. Do not let plants bear seed unless you need it. Plants that have grown in the same pot for a long time should be re-potted. If not convenient to do so, give them a good top dressing of manure. Straggling plants should be cut back. Tall ones need strong but slim stakes. At this season of the year pot plants should not be exposed too long to the fierce rays of the sun. Liquid manure may be applied one a week to all vigorous growing plants, and will increase the size of the flowers.

### JAPANESE MEDICAL JOURNALS.

Their Scope and Number—The English That One Finds in Them.

The Sei-I-Kwai Medical Society of Japan, which means The Society for the Advancement of Medical Science, keeps on file in its library between thirty and thirty-five native publications devoted to medicine besides at least as many foreign medical journals. The society also publishes a medical journal of its own, and part of the articles are in English, to meet the demands, it is explained, of the many English speaking medical men in Japan.

A recent issue of the Sei-I-Kwai Medical Journal, No. 6, of volume XVIII, seems to prove that the doctors of Japan are interested in much the same subjects that engage the attention of their brethren in America and Europe. There are papers upon diseases and remedies, reports of interesting cases, and an article in Japanese on "The Progress and Education of the Dentistry in the United States." The title of the article as thus given in English upon the cover of the periodical betrays a weakness that crops out in an occasionally amusing blunder in the use of English. It is interesting to note that the most troublesome snares for those that write in English for the Sei-I-Kwai Medical Journal, seem to lie in the particles of the language, though there is an occasional coupling of a singular noun with a plural verb, and vice versa. The use of words is usually precise, and the sentences for the most part are well formed.

In an English article on a case of Thomsen's disease, this piece of information is vouchsafed touching the patient: "Four years ago he practiced Judo for about three months, and every time he began to try that art he suffered from the cramps in the trunks and lower extremities, which, however, often two or three sets of the practice were over become gradually yielded to and the movements of the body became easy and free."

In the next paragraph occurs the following: "Recently he became to feel a sense of the stiffness in the cheeks, trunk, &c., after he performed a comparatively mild muscular effort, or when he had a long conversation, or when he had been sitting for a long time." The Japanese doctor's English seem occasionally to have run away with him when he attempted a long sentence, thus: "When the handle of percussion hammer was drawn lightly across the skin, as over the chest, back, lower extremities and other parts, there appeared, after a lapse of a few seconds, a red line in the part irritated and it slowly converted into a distinct swelling which disappeared after being persisted for from fifty minutes to an hour."

### AUTOMOBILES IN WAR.

The German military authorities estimate that by the use of automobile baggage-wagons, ambulances, and so forth, the mobility of an army in a country of good roads can be vastly increased. In England, recently, a "motor scout" was exhibited. It is a petroleum automobile wagon carrying a Maxim rapid-fire gun. A variation of this type of war car carries two Maxim guns in revolving turrets, and an electric search-light. It is also plated with armor, and driven by a sixteen horse-power engine.

### WANT AD.

Found, a dog; a brindle pup; Nor can I sell or shake it; If anybody wants a dog, I wish they'd come and take it.

## SCENES AT ALDERSHOT.

### TOMMY ATKINS AT BRITAIN'S FAMOUS WAR SCHOOL.

How England's Soldiers Are Trained for War on the Great Camp Ground—The Men Are in Splendid Physical Condition for a Hard Campaign.

Probably before this appears in type the roll of the drum will be heard on the plains of South Africa, calling the regiments of Britain to arms against the Boers. But it will not surprise Tommy Atkins any. He has been expecting it for some time, not only in Cape Colony, but here on Aldershot plains, says a recent letter.

When there is a war on hand the average British soldier generally finds out sooner than many of the government officials, on account of certain orders issued from the War Office. The orders call for preparations which point to one thing—trouble ahead. To the civilian they might mean nothing, but the grizzled Sergeant, perhaps just back from India, or who was with Kitchener in Africa, shrugs his shoulders when he sees what is posted on the company bulletin about extra inspections, issues of warm-weather clothing, instructions to the ammunition officers, etc. All have the same meaning to him. Three months ago here at Aldershot the old soldiers were settling the question as to how long it would take to whip the Boers, between their pipes after mess, while the younger Atkinses stood around in silent groups in admiring silence. Perhaps some of the officials at London might have profited by these discussions, for the veteran fighters appreciate what it means to run up against Kruger's forces, and they know it will not be like quelling an Indian mutiny or civilizing the Samoans with rapid-fire guns.

But Tommy Atkins is not afraid and he has not been taken by surprise. Thanks to his experience right here, he is ready for the struggle ahead. His muscles are hardened by the long marches, his nerves so steady from sleeping in the air of the pine woods that he can drop his man at 300 yards easily with the service rifle. Exposure during the forced marches and bivouacs in dog tents has toughened him against the climate in which he must fight. He drills like a machine from daily practice on the field, and take him all in all, he is in prime condition for a long campaign of it—such as he will probably have.

Aldershot is probably the finest place in Britain or on the continent for a great camp. The soil is naturally porous and so sandy that water can not stay on any part of it for a moment after the rain ceases. It was originally one of the few pine forests, and still considerable growth of these trees remain, enough to permeate the air with health-giving odor. When the British War Office secured the camp site it constructed an extensive sewerage system, so that the sanitary conditions are nearly perfect. Each company has a substantial brick home. At one end is the kitchen, where enough is cooked to give every private a good-sized chunk of roast beef or other meat; at least two vegetables, a half-pound of bread and a pint of tea daily, to say nothing of his portion of bitter or stout hardtack, as well as marmalade. He has a good solid ration to eat every once of it. Each man has a locker for his accoutrements and clothes and a bunk with springs to himself in the rest of the quarters. The bunks are placed in rows, and after the call for inspection in the morning can be found as neatly made up as if the work were performed by an expert chambermaid. As Aldershot is used principally for movements in the spring, summer and fall, the company houses are not provided with heat. The buildings, like the beds, are also arranged in rows, consequently each regiment is a little village in itself. About five of these villages comprise a division, in front of which is an officers' building, a substantial two-story affair, with suites of rooms for the General commanding, and the different Colonels and their staffs. Each Captain has a room to himself, while the Lieutenants bunk two in a room. The officers can pass the time pleasantly as the ample grounds provided contain several tennis courts, while within are at least one billiard room, a well-stocked refrigerator and a club room for lounging, smoking and card-playing. The Queen allows her officers plenty of latitude—and they seldom abuse the privilege.

This year Aldershot has been the camp ground of from 20,000 to 25,000 men at various times. Such a number gave an opportunity for elaborate manoeuvres, such as marches over the distant hills, covering fifty to seventy-five miles in area, also sham battles, cavalry dashes and field movements. In fact, the commander, probably realizing what is in prospect, has put the various forces through about everything in the art of war except actual fighting, and Tommy has had but little time to saunter over to the town to time to saunter over one arm, and his self, with came under one arm, and his latest girl on the other. The principal drill grounds are three in number. The smallest will allow 2,000 men to be handled by regiments or battalions, without difficulty, while the Queen's parade will accommodate a division, with room to spare. It is a perfect field from a military standpoint, with a slight eminence containing a clump of trees from which the commander and staff can view the evolutions of every regiment. One section of the camp has been provided with butts for

rifle practice, also for artillery work, and the result of the programme carried out here will tell when the rifles, large and small, are turned on Kruger's men and towns, for some remarkable records have been shown at Aldershot this year.

### EGGS FOR ALL ILLS.

A French Chemist Claims to Have Made a Remarkable Discovery.

For countless ages the long suffering hen has been an overworked creature. Her humble occupation of laying eggs, has brought her little glory, and yet she has never complained. She has cheerfully performed her duties, and when old age has incapacitated her for further usefulness as an egg producer she has accepted with fortitude her fate as the central figure in the homely potpie of the enigmatical boarding house stew. But it is as a patient layer of eggs that her life work is best known.

Now, however, fame promises to perch on her brow, and her faithfulness to duty is about to be rewarded. A French chemist has discovered that hens can not only digest iron easily, but that it is transmitted to the albumen in their eggs. In his experiments he has given salt of iron to hens with their regular diet of cracked wheat, and has found that they produce eggs highly impregnated with a health producing property, which is in turn readily digested by the human stomach. The Frenchman is said to be experimenting in a similar manner with other drugs, notably pepsin and manganese.

Here are untold possibilities for the hen. She may eventually drive the manufacturer of pills and powders out of business entirely. If we have dyspepsia the hen will lay an egg for us that will cause us to feel at peace with all the world. If our liver is torpid there will be an egg for that. For a bad cold take an egg impregnated with quinine. In fact, the usual query, "How will you have your egg this morning?" will assume quite a new importance. The time may not be far distant when, instead of having a family physician, all that will be necessary will be to keep a hen.

### IN CASE OF FAINTING.

Persons Should be Allowed to Lie Flat Upon Their Back.

Fainting is due to a temporary and transient weakening or pause of the heart's action, which causes a suspension of the circulation of the blood in the brain. It is this fact which causes the loss of consciousness. This is accompanied with a loss of muscular power, so that the person, if standing, falls.

If people would only understand and constantly remember that nature wisely takes care of the person who faints, and put them in the best position for recovery—that is, lying down—the foolish practice of making a pillow of something to put under the head, or trying to make the one who has fainted, sit up, would cease. This is the very worst thing that could be done. Usually no treatment is required at all in fainting. The first, the indispensable thing to do, is to lay the person down flat at once—the head must be as low as the body—then raise the legs and body a few inches from the ground, the feet six or eight inches, thereby causing the head to be lower than the body, and consciousness will return immediately.

Holding smelling salts to the nose tends to excite the nerves of sensation, and by arousing the brain and heart to renewed activity, are useful.

### GOT THE JEWELS.

A New Game Recently Worked on a Paris Jeweler.

A swell young woman not long ago drove up in a handsome private carriage to a well-known lunatic asylum, situated a few miles from Paris, and requested to see the proprietor. Her wish being acceded to, she informed the doctor that she desired to place her husband under his care to see if a cruel mania, under which he labored, viz., "that he had lost a large quantity of jewels," could not be removed.

After some hesitation the doctor consented, and the woman drove away directly to a jeweler's in Paris, and selected jewels to the value of several thousand dollars and requested one of the shopmen to go with her in her carriage to procure the money for the goods she had taken. She drove with him to the asylum, and arriving there, he was shown into a room.

The lady then sought the doctor, told him of the arrival of her husband, and, getting into her carriage again drove away. The rest may be imagined, but the poor fellow was confined several days before it was found they both had been "sold," and the lovely lady never came back.

### THOSE GIRLS.

People say he is courting you only on account of your money, dear. They never make such remarks about you, dear.

### AHEAD OF SUNSHINE.

Spain has more sunshine than any country in Europe. The yearly average is 3,000 hours. In America it is 2,100.

### ISLAND OF LAKES.

Nearly one third of the surface of Newfoundland is covered with fresh water, mostly in the form of lakes.

## BARQUE WITH A HISTORY.

### THE DISAPPEARANCE OF THE CASWELL, OF SWANSEA.

The Scene of a Terrible Mutiny—Left New South Wales Last February, and Has Not Since Been Heard Of.

With the disappearance of the barque Caswell, of Swansea, which left South Wales in February of this year, and has not since been heard of, there vanishes the scene of one of the most thrilling stories of mutiny with which Englishmen have been associated, says a London letter.

Twenty-three years ago, on January 1st, the Caswell sailed from Antofagasta, Chili, with a cargo of nitre. Among the hands shipped at the port were a Greek named Bg George, two other Greeks named Christos and Nicolas Bambos, and two Maltese brothers, Giuseppe and Gaspar Pastores. The Britishers numbered nine.

Three days out from port Captain Best was on deck showing Big George some work. The Greek was on the bulwarks, and, jumping down, he plunged a knife into the captain's body. This was evidently the first step in the terrible plot, which had been planned for some time. The mutineers were the five foreigners, and all were now at hand armed with knives and revolvers. William Wilson, the mate, who was forward, ran aft, but as he was passing the galley he was seized by Christos Bambos and Nicolas.

The mate cried for mercy, but they said "No; no mercy," and Nicolas plunged a long galley knife into the poor fellow, stabbing him to death. The Maltese brothers now came on the scene with revolvers, and as they passed the captain lying on the deck, almost disembowelled, they shot him in the head. The second mate, Allan McLean, was shot in the arm and then stabbed in the back. Big George called the steward, Edward Griffiths, up from below, and when he appeared at the companion hatch caught him by the hair of the head, and almost cut him in two.

### MURDERED THE CREW.

Peter McGregor, the carpenter, fastened himself in his room. They called "Carpenter, carpenter!" but McGregor would not open the door, so they left him alone. They appeared to come to the conclusion not to kill any more, at any rate just then, but McGregor, finally coming out of his room, they made him kneel down in the blood of the captain and swear to his God that he would help them to the best of his ability.

The bodies of the four men were lying on the deck, though the second officer did not appear to be dead. A rope was tied by Big George round all the victims, and the bodies, with a keel anchor attached to them, were thrown overboard. The keel anchor, however, became detached, and the bodies were seen to float past the stern of the vessel.

The mutineers, except Christos Bambos, now occupied the officers' quarters, and put on some of the clothes which they found in the rooms. Bambos stayed in the fore-cabin, so that the Britishers could not confer together respecting their terrible situation. The name Caswell was painted over, and everything on board with the name Caswell on it was thrown into the sea.

On February 19th the two Maltese left in a lifeboat. The night before leaving they told two of the men, Dunne and Carriek, not to go to sleep, as the Greeks intended to murder them.

### RECAPTURED THE SHIP.

On March 2nd the Englishmen armed themselves with hammers. The carpenter took a hatchet, and Carriek an adze, and they rushed forward. Big George met them half-way with a knife in his hand, and it was then a case of life or death for all. McGregor struck Big George on the head with the axe, telling him to get the deck, and the others struck him with riveting hammers, and left him for dead on the deck.

The Englishmen then went to the state-room for Nicolas and Christos, Nicolas fired three shots, which lodged in the cabin side. The adze and hatchet now did terrific work, and all the mutineers were in the power of the English. Big George and Nicolas died. Christos Bambos recovered, and was kept bound and manacled on deck. Christos afterwards confessed that the Greeks intended to take the vessel to Samoa and try and sell her quietly, with her cargo of nitre, to a Greek merchant, but if they failed they intended to kill the Englishmen and sink the vessel.

On May 13th the Caswell was brought safely to Queenstown by the three British heroes, assisted by two apprentices, McDonald and Ferguson.

### NO SALE WAS MADE.

Agent—I should like to show you, madam, this patent bag to hold clothes pins. It costs only twenty-five cents and, you see, slips along the line, making it much easier to get at than to stoop to the basket every time.

Mrs. McLaherty—An' phat's the matter wid me mou' that costs not a blissed cent an' is always wid me, I'd like to know! It's meself that can howl a dozen o' pins and be sociable like over the fence to Mrs. O'Toole with the same bream, begorra!