with pieces of slate or board. This not only prevents birds or animals from doing any harm, but also serves to retain the moisture for a longer time. The seeds of Primulas and bulbous plants will also germinate much more freely when treated in this way, as will also those of Hepaticas and Hellebores.

Mr. George Bunyard endorsed the views expressed by Mr. Jenkins as to standing seeds of Primulas when sown in water. He had found *Primula rosea* to germinate freely in this way. *Eucharis sanguinea* also, which until recently was a very rare plant, he succeeded in raising by accident in this way. A cold frame, in which the seeds had been sown, became saturated with water, and the seeds came up like mustard and cress.

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**LACHENALIAS.**

By Mr. F. W. Moore, F.R.H.S.

[Read April 14, 1891.]

To possess a fondness for certain classes of plants, and to have means, facilities, and sufficient independence to gratify this love, constitutes one of the pleasing episodes in life that gardeners can always reflect on with pleasure. I speak advisedly when I say "to have sufficient independence," for assuredly it is very difficult to remain constant to your "hobby" for a lengthened period in the cultivation of flowers. Fashion, always a powerful factor, no matter how it may be sneered at, may be against your "hobby." Your candid friend is almost certain to favour you with advice contrary to your inclinations. Should you be a grower of succulents, he will say, Why don't you burn your succulents and grow Ferns? The lover of Ferns is told. It is a pity to occupy so much valuable space with such rubbish, when it could so well be utilised for Orchids. However, the most potent factor is the seductive power of rival flowers. Their attractions are so varied, the advantages which accrue from the cultivation of a mixed collection of plants are so numerous, that it is indeed hard to remain faithful to one hobby. Nothing can more fittingly illustrate the changes in fashion as regards plants, and the effect of these changes, than a careful study of botanical and horticultural
publications, serials, and illustrated works, such as the invaluable *Botanical Magazine*.

From these sources of information it becomes apparent that bulbous plants were formerly much more cultivated than they are at present. No doubt a very good reason for this is that given by Mr. Hemsley, namely, that bulbous plants and succulents were more tenacious of life than most other plants, and therefore easier to introduce. As means of transit became better and more expeditious, and experience demonstrated the best mode of treating fragile plants during long voyages, and the best seasons at which to import them, the variety of plants increased enormously, and bulbous plants were largely superseded in gardens. The genus Lachenalia was one of those that suffered. Over forty species have been described, and of these about thirty have, at one time or another, been in cultivation; but in 1860 Mr. Baker estimated that not more than eight species were in cultivation in England. A reference to-day to the lists of tradesmen and private growers proves that Lachenalias have regained much of the favour they lost, as at least thirty well-marked species and varieties are now in cultivation, and this number is rapidly being added to. That the genus has much to recommend it cannot be denied. Easily grown, with flowers of great beauty and variety, and with no variation in treatment, lasting in flower from early December to May, such are some of the good qualities of Lachenalias. I do not mean to convey that any individual species remains in flower for four or five months, but that some of the various species are in flower during this time, all the species receiving the same treatment. The first species to come into flower is either *Lachenalia pendula* or *L. quadricolor maculata*, better known in gardens as *L. superba*. These are succeeded by some of the crosses between *L. quadricolor* and *L. tricolor*, or *L. Nelsoni*; then comes *L. reflexa*, and *L. aurea-reflexa*; then the tricolours, and *L. Nelsoni*; then *L. orchioides, L. glaucina, L. Cami*, and others; and lastly *L. aurea*, these being about the best of those now in cultivation. Interspersed amongst them are some of the less showy species. Not only is the genus represented by species in flower during a lengthened period, but some of them remain fully six to eight weeks quite fresh, and the flowers last for a long time when cut.

Before treating of the cultivation of Lachenalias, it may be well
to say something about the botanical position of the genus. Baker in his monograph of Liliaceae, in the Journal of the Linnean Society, places it in the tribe Hyacinthus, of the order Liliaceae, between the genera Dipcadi and Veltheimia—other allied genera, which may be more familiar to many, being Hyacinthus and Muscari.

The chief distinguishing characters of the genus lie in the perianth, in which there are two distinct rows more or less united into a cup at the base. The outer row consists of a series of three segments, smaller than the inner, of a firmer texture, and, as a rule, each having a well-marked protuberance or beak near the point. The inner row also consists of three segments, which are generally brighter in colour than the outer (except in the bud state, when the outer are often brightest), longer, and different in shape, so that in most of the species there is a well-marked difference between these two rows.

Lachenalia is further divided into four sections:

1. \textit{Eulachenalia}.—This includes the species best worth growing. They are characterised by having a very symmetrical perianth, tubular in shape, about four times as long as broad, the mouth rather open, the stamens included, and the flowers arranged in racemes.

2. \textit{Caelanthus}.—Having a ventricose perianth, and a spike of erect, or partially erect, flowers, represented by \textit{L. reflexa}, a species which is also remarkable for its very large ovary.

3. \textit{Orchiops}.—Distinguished by having the tubular perianth shorter than in the preceding section, but the stamens remain included or almost so. There is much more irregularity in the formation of the perianth. The flowers are borne in dense spikes and racemes, and are patent or erect.

4. \textit{Chloriza}.—In this the perianth is almost as broad as long, in shape campanulate, and the stamens are generally exerted.

In Bentham and Hooker’s “Genera Plantarum” the genus is somewhat differently disposed of. It is placed in the tribe Scilleae; in it is included the genus Brachyscypha of Baker, and it is divided as follows:

1. Eulachenalia, similar to Baker’s.

2. Orchiops, which includes Orchiops and Chloriza of Baker with the exception of \textit{L. orthopetala}.

4. Cœlanthus, similar to Baker's.

All Lachenalias are natives of the Cape of Good Hope. It is not easy to say when the first species was introduced into Great Britain, but it is certain that L. orchiodides was cultivated and had flowered in this country previous to 1752. This is the first species recorded. From 1752 onwards, new species appeared at irregular intervals, a large addition to the number being made by Masson in 1774. L. tricolor appeared in 1790, and as recently as 1884 three new species were introduced by Ware, and named by Baker L. fistulosa, L. lilacina, and L. odora-tissima, all belonging to his fourth group, Chloriza. The first authenticated garden seedling was L. Nelsoni, which was raised by the late Rev. John Nelson, and flowered in 1880. Nothing has since appeared to surpass it, or even to equal it. Lachenalias have all moderately sized tunicated bulbs, the strongest being about as large as that of a good Scilla siberica, the weaker-growing species having bulbs not larger than that of a Snowdrop. The leaves appear first; they are generally well developed before the flowers appear, but to this there is one exception. I am informed by Mrs. Tait, of Oporto (to whom I am indebted for much information), that in the case of Lachenalia rubida the leaves and scapes appear simultaneously, or almost so, and that the leaves continue to grow, and only attain their full development after the flowers have withered. This has occurred each year, and is constant. In wild specimens the number of leaves is, in the case of Lachenalia unifolia, one, and in other species two or rarely three; but in strong cultivated specimens three, four, and even five leaves are found. The flowers are borne on stout scapes which are either green or beautifully mottled with reddish purple, and sometimes covered with a glaucous bloom. Frequently these scapes at the apex pass into bright red. This is more marked in some of the seedling forms, and is in them a most attractive feature. The flowers are arranged in racemes, or in more or less dense spikes. At the top of the inflorescence they pass into imperfectly developed and sterile buds, these sterile buds sometimes, as in the case of the upper portion of the scapes, being bright red, and not the least handsome part of the inflorescence.

It is amusing to note the varied cultural directions given by different writers, and certainly some of the directions if followed
will not lead to very satisfactory results. Andrews says, "They are of so hardy a nature as to require no further protection than shelter from severe frosts." Another writer states, "They should not be put in a dry place or in a situation exposed to fire heat." I think both are somewhat astray, although with this treatment they are said to have produced leaves 18 inches long. However, the time given for flowering, September, seems suspicious, as I have never known any species to flower at that time of year. To have satisfactory results it is necessary to secure sound well-matured bulbs, and it will be found that home-grown ones are far superior to imported bulbs, not only for one year, but for an indefinite period. In proof of this I can assert that for at least twenty years L. tricolor has been grown at Glasnevin, that no fresh bulbs of this species have been purchased during that period; and that never have the flowers been better than in February 1891, some of the scapes carrying as many as twenty-four flowers. In fact newly imported bulbs require careful cultivation for some years before the best results are attained.

Time of Potting.—Here again the advice and directions given vary much: Pot as soon as the leaves die down; pot before the new roots appear; pot when the new roots have somewhat grown. I cannot imagine any thinking practical grower seriously giving such advice as to pot when the roots had begun to grow. The young roots are very delicate, white in colour, unbranched, and easily broken. When once injured they die back to the base, and do not branch above the injured part. This I proved by potting some bulbs which had already made roots, and turning them out after some time. The old roots were all dead, and new roots were growing from the necks of the bulbs. I find the middle of August to be the best time to pot, and my plants are invariably potted between August 10 and 20, the latter date being rather too late. However, I find that the time of flowering is not altered by potting in June, July, or August, the after-treatment in each case being the same.

Potting Material.—The material in which Lachenalias are grown must be rich. The compost I have used with most success is two parts of loam, one part of leaf-mould, one half-part of decayed manure, to which I add some fertiliser such as fish-potash guano, the effect of which I think is to intensify
the colour of the flowers. The material is prepared in the spring, and well turned over three or four times before it is used. I use 7-inch pots for the strong-growing sorts, and put from eight to fifteen bulbs in each pot—eight of L. pendula and fifteen of L. tricolor. It is necessary to sort the bulbs well, keeping the stronger bulbs to themselves, and weaker bulbs to themselves, as when mixed they sometimes flower irregularly. The strong bulbs flower earlier than the weaker. Basket culture may also be resorted to with advantage. In fact they grow rather better in baskets than in pots; the foliage is stronger, and so are the flower-spikes. The effect produced by a basket of Lachenalias with forty to fifty flower-spikes all open together is very fine, and such an effect can be secured without much trouble. The finest Lachenalia Nelsoni I ever saw was sent to me by the Rev. Theodore Marsh from a basket. He informed me that when carefully tended these baskets need not be disturbed for three or four years; but I have always remade them each year. The same soil does for baskets as for pots. The baskets should, however, be lined with Sphagnum before putting the soil into them.

**General Treatment.**—When the bulbs have been potted they are well watered, and the pots are put in a light airy house on a shelf near the light. The glass is not muffed, or in any way shaded. The ventilators are kept open day and night until the middle of September, when they are closed on cold nights. As the soil gets dry the pots are again watered, and so treated until the leaves appear in the course of a few weeks, after which the soil should never be allowed to get quite dry. Watering must be carefully attended to, as the roots decay if the soil be too wet, such species as L. glaucina and L. orchioides being much more sensitive than L. tricolor or L. Nelsoni. The temperature in the house should not be allowed to fall below 45 deg. Fahrenheit, and plenty of air should at all times be given. Should the day be dull or cold a little heat is turned on when the ventilators are opened, as a cold draft is less injurious than a damp stagnant atmosphere. So treated they will commence to flower early in December, and at present several species are still in flower. As the plants come into flower they are fed with liquid manure once weekly, and this is continued until the leaves die down. Much of next year's success depends on this being carefully
attended to. When the plants have finished flowering they are replaced on the shelf, and about May they are placed in a frame with southern exposure, and carefully attended to until they go to rest. The decayed leaves are then removed, the ashes in the bottom of the frame and around the pots well damped; the sashes are shut down, and remain so until potting time in August. I have tried various other methods, such as growing Lachenalias in unheated houses, in frames, or in brick pits, but I find the system I have now detailed to be by far the best. I was led to it by observing how much better plants in baskets grow, which had perforce to be so treated, than plants in pots which were differently treated, and since adopting this plan they have never failed. I do not wish to imply that all flower equally well. Such is not the case. *L. pendula*, *L. tricolor*, *L. quadricolor*, *L. Nelsoni*, *L. orchioides*, *L. Cami*, and *L. glaucina* can always be relied on. On the other hand *L. rubida*, *L. pustulata*, *L. unifolia*, and *L. aurea* are very uncertain, and sometimes refuse to flower. However, *L. rubida*, *L. unifolia*, and *L. stolonifera*, whatever this may be, have incurred much ill favour, which they do not altogether deserve. Peculiar irregular tortuous tubers, similar to those of *Milla biflora*, or to the swellings on the roots of some Bulmares, have been widely distributed for the bulbs of the three species named. The late Rev. John Nelson, having failed to flower these tubers, handed some of them over to the Rev. T. Marsh, who, also failing to flower them with ordinary treatment, planted them out in deep soil in front of a greenhouse, and covered them with a light. Here they eventually flowered. The flowers were sent to Mr. Baker, who identified them as belonging to an early form of *Scilla campanulata*. These impostors are still extensively cultivated for Lachenalias.

**Raising from Seed.**—Almost all the species and varieties of the group *Eulachenalia* intercross freely with each other, the exception being *L. pendula*, and only twice have I succeeded in crossing it, once with *L. quadricolor*, and once with a seedling form. Lachenalia flowers are strongly proterandrous, the anthers dehiscing before the flowers are fully open. It is therefore necessary to open the buds to remove the anthers before they dehisce. The stigma is not protruded beyond the mouth of the perianth for about a week after the flowers have opened,
and in some cases it is not protruded at all. It can easily be reached by taking off a stamen with the filament, a method which I always adopt in preference to a brush. The seeds take from ten to twelve weeks to ripen, and should be sown as soon as ripe. They are small, black, and shining, and generally round, but those of *L. pendula* are gourd-shaped. They may be sown as soon as ripe, and will be found to germinate much more freely if placed in a temperature of 55 to 60 deg. Fahrenheit, in which temperature they may remain until about the end of February, which will be eight months from the time of sowing. They should then be brought to the house in which the old plants are grown, to finish off their growth and go to rest. Next season they behave exactly as do the old bulbs, and they should be treated like them. The third season they will flower, that is in two and a half years from the time of sowing. It would serve no useful purpose to give a list of all the species of Lachenalia which have been described, more especially as I have never seen many of them. My object has been to treat the genus from a practical point, giving my own experience of it, and stating what I was certain about, in furtherance of which plan I now give a list with descriptions of all the species best worth growing, of which I have seen fresh flowers.

Before doing so I wish, however, to thank Mr. Baker very sincerely for the great trouble he has taken in replying to my letters, and in correcting the nomenclature of some species which I sent to him. Mr. Baker has done much to earn the gratitude of all those who take an interest in plants, and the kind and unostentatious manner in which he places his vast accumulation of knowledge at the disposal of inquirers, evokes towards him generally feelings of respect and esteem.

*Lachenalia pendula*, Aiton.—One of the best and most distinct of all the species, and generally the first to flower; the flowers opening in December or January. It is one of those introduced by Masson in 1774. It grows easily, and increases freely. Its bulbs are larger than those of any other Lachenalia, and in all its parts it is strong and fleshy. The two leaves are broad, deep green, and brittle; the upper leaf being smaller than the lower leaf. Their edges are closely adpressed, forming an erect cup, from the centre of which comes the scape. The scape is quite $\frac{1}{3}$ inch in diameter, green, passing into bright red at
the top. The pedicels are short and rigid, the flowers, when young, being borne in a horizontal position. Flowers six to ten, the outer segments nearly as long as the inner, colour bright red, the tips of the perianth segments are purple and green. There is a well-marked gibbous swelling at the base of the flower. It is well figured in the Botanical Magazine, table 590.

*Lachenalia pendula*, var. *gigantea*.—A fine form of *Lachenalia pendula*, but not larger than the type. The flowers are somewhat larger, pendulous instead of horizontal, the top of the inflorescence gracefully arched, instead of being straight. It is frequently stated that the difference between *Lachenalia pendula* and *L. pendula gigantea* is due to cultivation, but this is certainly not the case. The former increases freely, the latter very slowly, besides which the type flowers earlier, and there is a marked difference in habit.

*Lachenalia rubida*, Jacq.—This is rather an unsatisfactory species for British gardens, as it cannot be relied on to flower regularly, and at no time does it flower freely. However, it is well worth growing, as the colour of the flowers is so bright and distinct, almost a uniform bright red, paler near the ends of the flowers, with purple and green edgings to the perianth segments. As already stated, this species differs from most other species of Lachenalia, by producing its leaves and flowers almost simultaneously. It is a dwarf species. The scapes are slender, about 6 inches long, green at the base, passing into red 1 inch from the bulb, with large blotches of deeper colour. Flowers six to ten, long and slender, about 1½ inches long, the inner segments about a quarter longer than the outer. The flowers are oblique at the base, patent, on stout pedicels. It was introduced in 1803, and is figured in the Botanical Magazine, table 993.

*Lachenalia rubida*, var. *tigrina*, Gawl.—Similar to *Lachenalia rubida*, but the outer segments paler in colour, and liberally spotted with deep red. A very nice variety.

I may here state that this is the only *Lachenalia tigrina*. It is necessary to clear up this, as in numerous collections a form of *Lachenalia tricolor* is cultivated under the name of *L. tigrina*, which, however, has nothing to do with *L. tigrina*; all its characters being those of *tricolor*, such as the relative length of
the perianth segments, the colour, shape, and direction of the flowers, and the habit of the plant. I procured specimens, and submitted them to Mr. Baker, who says: "Tricolor, not far off type." A plant called L. tigrina Warei should be L. tricolor Warei. Flowers of this, from bulbs obtained from Mr. Ware, have been submitted to Mr. Baker, who agrees in this opinion. The following notes in the Garden (March 21, 1885) about some Lachenalias prove this: "A series of varieties of these pretty plants, from Mr. Ware, shows what a diversity of colour there is now among them. Another interesting plant is L. tricolor Warei, a variety which Mr. Baker, of Kew, recently named. It reminds one of L. quadricolor, and seems to be intermediate between that kind and tricolor."

L. tricolor.—From a gardening point of view, L. tricolor and its varieties form the backbone of the genus, and they alone are sufficient to secure a firm footing for the genus in gardens.

L. tricolor is a very variable species, widely variable, if L. aurea is to be regarded as a variety, and about these varieties there exists endless confusion. The following is a list of the well-marked varieties:

1. L. tricolor.
2. L. tricolor, var. quadricolor.
3. L. tricolor, var. quadricolor maculata (superba of gardens).
4. L. tricolor, var. Warei.
5. L. tricolor, var. luteola.
6. L. tricolor, var. aurea.

1. L. tricolor.—In most gardens, L. quadricolor is grown for L. tricolor. Baker takes for his type the plant figured in the Botanical Magazine, table 82, and this should generally be adopted. It will be noticed that in this plant the bases of the flowers are red, passing into yellow and then into green, and that there are no red or purple markings at the points of the perianth segments.

L. tricolor is a vigorous free-growing plant, the leaves being about 12 inches long and 2 inches broad, glaucous green above, obscurely blotched, paler beneath, and narrowing into a point. Scapes stout, at first quite erect, afterwards becoming sickle-shaped, blotched with long purple patches, and covered with bloom. Flowers twelve to twenty-four, somewhat more than an inch long, inner segments about twice as long as the outer.
Base of the flowers red, centre portion yellow, and apex green, these colours merging into a pale yellow-green as the flowers wither.

2. *L. tricolor*, var. *quadricolor*.—This is the plant figured in the *Botanical Magazine*, table 1097, and in Andrew’s *Botanist’s Repository*, table 148. In habit it resembles *L. tricolor*, the leaves being similar and quite as large, and spotted. The flowers are well shouldered out from the stem, and there is a considerable amount of green in the outer perianth segments. The points of the inner segments are also spread back considerably as in *tricolor*, and pale red in colour. In growth it is somewhat dwarfer than *L. tricolor*, and the habit is stiffer. It is rather a delicate plant.

3. *L. tricolor*, var. *quadricolor maculata*.—This is the *Lachenaalia superba* of gardens, and *L. tricolor*, var. *superba* would be a much preferable name to that now affixed to it; it would distinguish the plant from the preceding variety, and save much confusion. It is a much more slender plant than *L. tricolor* or *L. tricolor*, var. *quadricolor*, and the flowers are more brilliantly coloured, and longer and narrower, the mouth being more closed. Leaves long and narrow, about 12 inches by $\frac{3}{4}$, of a glaucous grey colour both above and beneath. The inflorescence is as long as the leaves. Scape slender, unsotted. Flowers long, about $1\frac{3}{4}$ inches, slender, hanging close to the scape, not shouldered out as in the preceding variety. The ends of the inner segments are rich purple, this colour extending as far on the interior face of the segments as on the exterior. It is almost the first Lachenalia to flower, in fact, sometimes it flowers before *Lachenaalia pendula*. It is figured in the *Botanical Magazine*, table 588.

4. *Lachenaalia tricolor*, var. *Warei*.—This is said to be a seedling raised by Mr. Ware. It is a pretty variety almost intermediate between *L. tricolor* and *L. tricolor quadricolor*, the reddish purple colour on the ends of the inner segments being confined to a narrow band. Its habit is that of the variety *quadricolor*.

5. *L. tricolor*, var. *luteola*.—Here again there is endless confusion between *L. tricolor*, *L. tricolor luteola*, and *L. tricolor aurea*. Typical *L. tricolor* is called *L. tricolor luteola*, and *L. tricolor luteola* passes for *aurea*. It differs only from *L. tricolor* in having the fully opened flowers pure yellow, with slight red
shading in parts. The bases of the flowers are, however, not red, and the green colour is not found on the points of the outer segments. Baker takes for his type of this, the plant figured in the *Botanical Magazine*, table 1704, and I think it is impossible to separate from it the plant figured at table 5092.

6. *L. tricolor aurea.*—A cantankerous little plant, differing from *L. tricolor* in habit and in constitution. The leaves are short and firm, 6 inches long, 1 inch broad, spotted with dull red; in the older leaves the red becomes a continuous patch at the points. Scape short and stout, 6 to 7 inches long, a few patches of red near the base; the upper portion is of a uniform reddish colour, and the apex bright orange-red. Flowers few, eight to ten, close together at the top of the scape, far more spreading than in *L. tricolor*; the ends of the outer segments are marked with green. Plate 1020 of the *Botanical Magazine* exactly represents this plant, although it is there called *L. tricolor*, var. *luteola*.

*L. Cami*, Hort. Leichtlin.—This is said to be a species, and it emanated from the rich collection of bulbs of Herr Max Leichtlin, of Baden-Baden. Leaves stout, more erect than those of *L. Nelsoni* or *L. tricolor*, or *tricolor aurea*, 9 inches long, bright and shining; on the upper surface mottled with dull brown. Scapes very stout and erect, heavily blotched with brown to half way, and uniform dull brown in the upper portion. Flowers twelve to twenty, shorter than those of *L. tricolor*, ¾ inch long, orange-yellow, shaded with green on the outside. Bases of young flowers, sterile buds, and top of the scape, bright red. A very attractive, free flowering, and vigorous plant, not coming into flower until March.

*L. reflexa.*—Not a very attractive species. Dwarf; leaves three, the bottom leaf reduced to a large sheathing scale extending about 2 inches, upper two leaves forming a narrow tube, 3 inches long, which is red. Rest of leaf green, ¾ inch broad, 6 inches long. Scape 6 inches long, four to six flowers. Flowers long, yellow, swollen in the middle, closed almost completely at the mouth. Ovary large, three times as long as broad. Flowers erect on very short pedicels.

*L. glaucina*, Jacq.—One of the most striking of all Lachenalias, and as variable as *L. tricolor*. From a gardening point of view it is by far the most important species in all the groups except Eulachenalia. The base of the flower is very globose.
Flowers short, narrowing in the middle, expanding again at the mouth. Outer segments yellowish green, tipped with green, the ends reflexed. Inner segments nearly twice as long as outer, the anterior segment longer than the others. All become curled backwards when the flower is fully open. Apex of scape, and sterile buds, soft bluish green. I imagine this to be the plant figured in the *Botanical Magazine*, table 1269.

*L. glaucina viridis.*—This is the best of all the *glaucinas*, and is generally grown under the name *Lachenalia viridis*. It is a bold flower, with very handsome foliage. Leaves about 12 inches long, 1½ inches broad, very erect, and tapering to a point, heavily spotted with purple brown, passing into a uniform patch at the apex, and along the margins. Scape stout, erect, blotched with reddish purple. Flowers twenty to twenty-five, 1 inch long. Outer perianth segments bluish green, the posterior segment having a large hump, tips green. Inner segments pale green or almost white, the anterior segment longer and more slender than the others, slightly reflexed. Buds reddish purple. Baker now includes in *L. glaucina* the *L. pallida* described in his monograph, species No. 8, and figured in plate 170 of Saunders’s *Refugium Botanicum* and in *Botanical Register*, plate 1350, and plate 1945.

*L. orchiodes*, Ait. Kew.—A pretty species, with small flowers of varied colours, from almost white to deep blue. The flowers are much smaller and narrower than those of *L. glaucina*, and the inner segments are not so irregular. In strong specimens the flower-stalks are curved over like a shepherd’s crook, with flowers arranged in rather dense spikes. The leaves are long and slender, faintly spotted. Scape 8 to 12 inches, erect, slender, spotted. Flowers numerous, spreading horizontally. Flowers not ½ inch long, outer segments one-third shorter than the inner, with green tips. It is well figured in Saunders’s *Refugium Botanicum*, table 171. There is also a plate in *Botanical Magazine*, table 854.

*Lachenalia orthopetala*, Jacq.—A species of very slender growth, with pure white flowers, save that each of the perianth segments is tipped with reddish purple. The leaves are long and slender, four to five in number, ½ inch wide, spotted with red along the midribs on the upper side, and tapering to a long point. Scape slender, 6 to 8 inches long, dull red.
Flowers ten to fifteen, white, segments spreading, pointed, the outer nearly as long the inner, stamens not longer than the inner segments, anthers red.

*Lachenalia pallida*, Aiton.—The true *Lachenalia pallida* of Aiton is a fine species abundantly distinct from *L. glaucina* and *L. orchioides*, and not the plant figured as such in the plates mentioned under the head of *L. glaucina*. In Baker’s monograph he says it is scarcely more than a variety of *L. glaucina*, and not the plant figured in *Botanical Register*, table 287. Mr. Baker now says that the true *L. pallida* of Aiton is the plant figured in the *Botanical Register*, table 287, and, therefore, it is far removed from *L. glaucina*. It is also figured in the *Botanical Magazine*, table 1872, as *L. lucida*, Gawl. Leaves fleshy, erect, 12 inches long, 1 1/2 inches wide, pale green on upper surface, dull purple on under surface, unspotted. Scapes very stout green, unspotted, 10 to 12 inches long. Flowers twenty-five to thirty, urn-shaped, pale white, segments tipped with green. The segments are fleshy. Flowers 1/3 inch long, 1/4 inch broad. Outer segments nearly as long as inner, the latter with points reflexed; anthers as long as or slightly longer than the segments. Anthers yellow. Ovary strongly three-lobed. The short white pedicel is attached to the lower side of the flower, and not to the centre of the base of the flower. This species is rare in gardens.

*Lachenalia pustulata*, Jacq.—A well-marked species which pervades most collections under a variety of names. *L. racemosa*, *L. fragrans*, and *L. purpureo-cærulea* generally prove to be this species. It is a free grower and freeflowerer, well worthy of a place, although the flowers are not conspicuous. Leaves two, flaccid, long, and slender, thickly marked on upper surface with pustules and blisters, green. Scapes slender, long, 12 to 15 inches, green. Flowers numerous, erect, on short green pedicels, more bell-shaped than tubular, 1/4 inch long, green and white. Outer segments shorter than the inner, green, or tipped with green. Inner segments more obtuse than the outer, white or lilac, fading pink. Stamens slightly longer than the inner segments. *Botanical Magazine*, table 817, well represents it. Also Andrew’s *Botanist’s Repository*, table 350.

*Lachenalia versicolor*, Baker.—A variable species, with several pretty varieties. It is a slender grower, with very long scapes. On the leaves a few scattered pustules occur. The
flowers are very campanulate, about \( \frac{1}{4} \) inch long, outer segments as long as inner, stamens twice as long as segments. Flowers from pink to purple in colour.

Seedling Lachenalias.—The late Rev. John Nelson seems to have been the first person to take up the raising of hybrid Lachenalias. Two of his seedlings are well known, one of which is probably the very best Lachenalia in cultivation at the present time, and very aptly it bears his name, \( L. \text{ Nelsoni} \). The other is \( L. \text{ aureo-reflexa} \). The first reference I can find to the former is in the Garden for July 17, 1880, where there is a coloured plate of this species and others. In the text pertaining to that plate it is stated to be a variety of \( L. \text{ tricolor} \); but the Rev. Mr. Nelson, in a note headed “Seedling Lachenalias,” on page 166 of the Garden for February 5, 1881, says: “I send for your inspection my seedling Lachenalia and its two parents. My impression last year was correct about its distinctness from \( \text{aurea} \); the Floral Committee pooh-poohed it as only \( \text{aurea} \), and I began to think my impression of the colour of \( \text{aurea} \) might possibly be a little indistinct, though I appreciate colours pretty well and can generally keep them in my mind’s eye as a rule. I think you will agree with me that the two plants are quite distinct; I may be a little blinded in favour of my own plant, but in my estimation my plant is the more showy of the two, and it is a far more vigorous grower, and will be as free as its female parent \( \text{luteola} \), so that it will soon become common and everybody’s plant.” This it certainly should be. It is a free, vigorous grower, with bold, handsome foliage. The scapes are very stout, and stand firmly upright without any support; as many as eighteen blossoms have been open on one flower-stalk, all fresh and good, their colour being bright golden yellow, with an occasional splash of green, which serves to emphasise the body colour. The sterile buds and the top of the scape are red, very bright when well exposed to light. The Rev. T. Marsh says in a letter to me: “None, I think, are such free flowerers or so easily managed as \( \text{Nelsoni} \) and its crosses. They never seem to fail.” An opinion which I thoroughly endorse. \( L. \text{ aureo-reflexa} \) (so named by Baker, and described in the Gardeners’ Chronicle, April 30, 1887) seems undoubtedly to be the plant exhibited by Barr & Son at the meeting of our Society on March 10, 1885, under the name of “Aldborough Beauty,” and about which
there is the following note: "One of the late Mr. Nelson's seedlings, raised by him shortly before his death. It is most distinct from all the other kinds in gardens. The flowers are larger than those of any other, and, instead of being pendulous, as in other large-flowered kinds, they are sub-erect. The colour is a bright golden yellow, similar to that of L. Nelsoni. The foliage is broad and unspotted; in short, it is so different from any other Lachenalia that it may prove to be a true species."

Some seedlings of very great merit have been raised by the Rev. Theodore H. Marsh, of Cawston Rectory, Norwich, to whom I am indebted for specimens, and for information concerning them and other Lachenalias. These seedlings are characterised by brightness and variety of colour not to be found in any others which I have seen. Some have been raised between L. quadricolor maculata crossed with L. Nelsoni, of which "Garnet" may be taken as a good type. They flower in February, and have all the brilliant colouring of L. quadricolor maculata, with the large flowers and fine constitution of L. Nelsoni. Others, of which "Cawston Gem" may be taken as an example, are crosses between L. quadricolor maculata and L. tricolor, L. luteola and L. aurea. They flower later than "Garnet," and the specimens I have seen seem to be more robust and quite as attractive. When bulbs of these get distributed a great impetus will be given to the cultivation of Lachenalias.

Seedlings have also been raised at Glasnevin, some of which possess considerable merit, but they lack the brilliant colours of the Cawston seedlings. To one of these only will I draw your attention, L. aureo-reflexa crossed with L. Nelsoni. Although three times removed from L. reflexa it indicates the large ovary of that species, and the characters of the plant are almost exactly intermediate between those of the two parent plants. The most interesting point lies in the direction of the flowers, some of which are sub-erect, as in L. aureo-reflexa, some pendulous as in L. Nelsoni, and some spread out horizontally.