terested party directly or indirectly; but I do not approve of invidious attacks made from behind the bush. *George Fry, Lee, Kent.*

Early Peas.—In reference to Mr. M'Ewen's report on Peas I think he must have a wrong sort in No. 1. I have grown it every year with the Emperor since the first season in which it came out, and I have always found it about eight days earlier; in fact it is always just done by the time the other comes in. I frequently sow from 15 to 20 sorts of Peas on the same day on purpose to test them. Last year I sowed 17 sorts, and for general purposes I think Fairbeard's Conqueror will stand high as a first early. Dixon's Favourite, which is about as early as the Frame, appears to be a good kind, producing as many as 12 Peas in a pod, which must ensure a good supply. *Richard Rilott, Donnington, near Spalding.*

The subject of Deep Wells has been sometimes discussed in your columns. I have a well 325 feet deep, and the 12-gallon bucket actually weighs 40 lbs. For many years I used a chain weighing 232 lbs; this, with the water, itself 96 lbs., amounts to 481 lbs. I have made an enormous saving of labour by using for the last half year Newall's patent wire rope. Now, will any one have the charity to say from experience whether there could not be a great saving in the weight of the bucket. Would zinc, or gutta percha, or leather serve? The bucket must be strong enough to withstand being occasionally dashed against the side of the well. Or must I stick to my old substantial oaken friend? *C. D.*

Proliferous Stock.—I send you a curious "freak of nature" in a double white Stock. At first sight it presents nothing remarkable, but having watched its development I do not remember to have seen such a curiosity before. Early in summer it bloomed in the ordinary way; when the outer petals began to die off the centre of the flowers commenced swelling, and gradually formed lateral spikes of bloom; at the base of each is visible the ring from whence the petals dropped. The plant grew in a cold heavy soil under a north wall. *James Ridly, Hawkchurch, near Axminster, Devon.* [This is a case of flowers attempting to grow into branches instead of stopping to form their seed pods.]

Papier maché Insects.—Can you give me any information upon an extraordinary appearance which was found the other morning upon a papier maché tray which was lying on a writing table in the drawing room? There appeared all round the under side of the lip of the saucer shaped tray from 20 to 30 nearly invisible filaments, ½ inch in length, with small white egglike specks at the extremities. They project like little bristles, vibrate with the least breath, yet adhere very firmly. The saucer is 4 inches diameter, highly glazed or japanned, is in constant use, and dusted every morning, *P. W. M., Shirley, Croydon.* [These are evidently the stalked eggs of a Hemerobius.]

Societies.

CALEDONIAN HORTICULTURAL: *June* 27.—The following is a report of the prizes awarded on this occasion. Shrubby Greenhouse Plants: 1st, Mr. Lockhart, gr. to R. Dundas, Esq., with Tetratheca verticillata and Aphelexis humilis. Mr. Lockhart also received the prize for Cape Heaths, the kinds produced being E. spuria and Cavendishi. Two Pelargoniums: 1st, Mr. Reid, gr. to W. Wilson, Esq., with Zara and Star (Beck's); 2d, Mr. Stewart, gr. to the Marquis of Dalhousie, with Attraction and Forget-me-not. Four Pelargoniums in 6-inch pots: 1st, Mr. Forrest, gr. to Messrs. Swan, with Carlos, Lucy, Sanspareil, and Wonderful; 2d, Mr. Henderson, gr. to C. K. Sivewright, Esq., with Fair Helen, Petruchio, Carlos, and Seraskier. Two Fancy Pelargoniums: 1st, Mr. Stewart, with decora and Queen Victoria: 2d, Mr. Reid, with Carlotta Grisi and Annette; 3d, Mr. Forrest, with decora and Lady Downes. Four Fancy Pelargoniums in 6-inch pots: 1st, Mr. Henderson, with erubescens, formosissimum, Celestial, and Criterion; 2d, Mr. Forrest, with Madame Sontag, Madame Van de Meyer, Lady H. Campbell, and Annette. Two Dark Fuchsias in 8-inch pots: 1st, Mr. Walker, gr. to J. Mood, Esq., with Prince Albert and Omega; 2d, Mr. Henderson, with Countess of Burlington and Prince Albert. Two Light Fuchsias in 8-inch pots: 1st, Mr. Walker, with Queen of Hanover and Maid of Kent; 2d, Mr. Henderson, with Maid of Kent and Venus de Medici. In Roses, the 1st prize was gained by M. Buist, Esq., Tynninghame, whose stand contained the following, viz.: Géant des Batailles, Baronne Prevost, Jules Margottin, Louise Peyronny, Charles Lawson, Devoniensis, Abricoté, Paul Ricaut, Reine des Fleurs, Triomphe de Paris, Adam, and General Jacqueminot. A second premium was voted to Mr. Stewart, for Great Western, Mrs. Rivers, Lanei, Elize Sauvage, Blanchfleur, Charles Lawson, Smithi, Cabbage, Duchess de Montpensier, Devoniensis, General Kleber, and Madame Humboldt. Phloxes: 1st, Mr. M'Farlane, with Barnton, Miss Lewis, Masterpiece, Rival, and a seedling named Mrs. M'Call, in the way of Abdel Medschid Khan, from which it had been raised. Calceolarias: 1st, Mr. Stewart, with Falstaff, Sir Walter Scott, George Shelby, and a seedling. Several extra prizes were offered by the office-bearers, the first of which (two sovereigns) for the best collection of Stove and Greenhouse Plants, was awarded to Mr. Blair, gr. to G. C. Arbuthnot, Esq. His collection included Tetratheca verticillata, Leschenaultia formosa, Epacris miniata, Mahernia incisa, Erica breviflora, ventricosa superba, and tricolor dumosa, Statice Halfordi, Pimelea decussata, Hoya bella, Ixora coccinea, Oncidium flexuosum, Aphelexis macrantha purpurea, Æschynanthus speciosus, and Clerodendron Kæmpferi. Extra productions placed on the tables for exhibition only were as follows:—From the nursery of Messrs. Dicksons & Co. were Pelargoniums, Gloxinias, &c.; from Messrs. P. Lawson & Son, Calceolarias and Heaths; from Messrs. J. Dickson & Sons, Pelargoniums, including French fancy sorts, &c.; from Mr. R. M. Stark, rare Alpine plants and Ferns, including Cheilanthes alabamensis, Gymnogramma peruviana, Nothochlæna nivea, Todea pellucida, and other interesting species; from Mr. Douglas, several trays of Pelargoniums, Roses, Verbenas, &c.; from Messrs. Wright, Renwick, & Co., Dracæna nobilis, Sonerila margaritacea, &c.; from Messrs. Downie & Laird, spikes of Delphinium formosum, Calceolarias, Petunias, Phlox Addisoni, &c.; from Mr. C. Alexander, Pansies in pots, Delphinium Hendersoni, Linum grandiflorum rubrum, and new Shrubby Calceolarias; from Messrs. Cunningham, Fraser, & Co., boxes of Roses, including Souvenir d'un Ami; and from Mr. Handasyde, Roses, with herbaceous plants, and Irises. From the garden of C. K. Sivewright, Esq., fancy Pelargoniums and a plant of Erica Cavendishi; from Professor Syme, a beautifully flowered plant of Leptodactylon californicum; from Mr. Anderson, specimens of the Champion Peach and Black Hamburgh Grapes; from Mr. Pender, a neatly arranged collection of fruit and a dish of large Mushrooms; from Mr. Fraser, a specimen of Oncidium pulvinatum, Alpine plants, and Ferns; from Mr. Lockhart, Cissus discolor; from Mr. Stewart, Gloxinias; from Mr. Blair, Stanhopea oculata; from Mr. Buist, Roses; from Mr. Reid, a box of Pansies and fancy Pelargoniums; from Mr. Young, Stocks; from Mr, Duncan Kerr, a seedling Pansy; from Mr. Ferguson, Ranunculuses, Roses, &c.; and from Mr. Dunn, Stocks. Miss Barnetson, 26, Clarence Street, exhibited a neat group of wax fruit.

EDINBURGH BOTANICAL: *June* 11.—The President in the chair. The following papers were read, viz.:—1. "On the Identity of Achorion Schönleini and other vegetable Parasites, with Aspergillus glaucus," by Mr. John Lowe. The object of this communication was to show the relation which exists between the parasitic growth in Porrigo favosa and other skin diseases, and a common species of fungus, Aspergillus glaucus; and to establish the identity of a number of these forms which have hitherto been regarded as specifically distinct. After adverting to the difficulties experienced in conducting an investigation of this nature, the author proceeded to give a detail of the experiments which had been made with the view of producing the plant in a state of perfect fructification, and being thus enabled to ascertain its specific value. A quantity of favus crust having been procured from a case of Porrigo lupinosa, a portion was immersed in pure glycerine, another was placed on cheese, and a third in solution of raw sugar. The first of these did not germinate, but became disintegrated after about ten days. This was probably owing to the temperature of the fluid not being sufficiently high, as it is well-known that the yeast plant grows with facility in the same medium, at an elevated temperature, during the manufacture of Butyric acid. The cells placed on cheese also failed to germinate, and died in about the same time as those put into glycerine. Those immersed in the saccharine solution gave a different result. At the end of 48 hours the cells had become swollen and more oval than at first; on the day following they began to unite into moniliform chains forming a mycelium, the filaments of which after a time were observed to contain granules and nucules. At the end of about a month the perfect fructification of Aspergillus glaucus appeared. During the growth of the plant, the different stages of development were observed daily under the microscope, and the whole of the following species (so-called) were found accurately represented so far as appearance goes, by one or other of the forms produced. Microsporon furfur, Robin; Oidium albicans, Ch. R.; Torula guttata; Trichophyton tonsurans, Malmsten; T. ulcerum, Ch. R.; Microsporon Audouini, Ch. R.; M. Mentagrophytes, Ch. R.; Achorion Schönleini Remak.; Leptomitus, six species; with a considerable number of other epizootic forms. With regard to the majority of these, the author remarked that they could not be with certainty considered as identical with Aspergillus, but that there was every probability of such being the case; 1st, from the exact identity of form; and 2d, from the extreme unlikelihood of their being distinct species, as shown by their never or rarely producing fruit; proving them to be mere variations of some other fungus growing under unfavourable circumstances, and not arriving at a perfect development. With Achorion Schönleini the case is different. The following facts may be adduced in support of its alleged identity with Aspergillus:—1st. The sporules of the former, carefully watched during their growth, developed the perfect sporangia of the latter, which—2dly, is produced in a state of fructification in the air sacs of birds, showing the possibility of its growing on animal tissues. 3dly. The figure given by Dr. Bennett of a section of the scalp affected by Favus, exhibits the true fructification of an Aspergillus. The author concluded with some lengthened remarks on the circumstances under which this fungus is developed, and its distribution and properties. 2. "On the Properties of Lolium temulentum." By Mr. Lowe. After noticing the physiological effects which have been ascribed to the action of Darnel, the author remarked that there exists a great want of information as to the amount of the seed requisite to produce these results. From all that has been written on the subject, it would appear as if the virulence of the herb varied in different localities. A series of experiments was given in detail showing that Darnel grown in the Botanic Garden produced no effect when taken in doses of half an ounce. The observations of Professor Christison on the Œnanthe crocata show an analogous result, this plant being a virulent poison when grown in England, but innocuous in Scotland. A similar example is seen in the Cannabis indica, which only yields its gum-resin when grown in a hot climate. Further experiments are required with regard to Lolium. The difficulty experienced in obtaining the pure seed has prevented the above series from being extended further, but it is hoped that others will make further observations in different parts of Scotland. 3. "Further Observations on Dust Showers." By Mr. G. Lawson. After some preliminary observations, referring to the views adopted in his previous paper on this subject, Mr. Lawson laid before the Society a letter from Dr. J. O. M'William, R.N., in which that gentleman remarks:—"In your paper on dust showers you allude to the sand showers described by Humboldt and by Ehrenberg as occurring near the Cape de Verd Islands, when the decks of ships navigating the ocean became covered with sand. While I was at Boa Vista, the easternmost of the Cape de Verd group, during the months of April, May, June, and part of July 1846, I had ample opportunity of witnessing these phenomena. In my meteorological register, which includes observations three times in the 24 hours, of the barometer, thermometer, the dry and wetted bulb thermometer, the temperature of the sea, the force and direction of the wind, and the character of the clouds, I find that in April (1846) the atmosphere is recorded as hazy, and filled with sand, ten days; in May, eleven days; in June, five days; and during the first ten days of July, three days. As a general rule, when these sand fogs prevailed, the north-east trade winds were blowing with more than usual force; they sometimes lasted for three or four days without any intermission. At the period of their prevalence, the sand heaps which abound in this barren, parched, volcanic region, are drifted about from the windward to the leeward side of the island, filling the hollows in the plains, and, sometimes in the course of a few hours, obliterating all traces of pathways, and thus bewildering the newly arrived traveller. I was in the leeward side of the island when the first sand shower occurred, and the residents differed in opinion as to its source, some saying that it came from the beach and sand hills, on the windward side of the island; while others more correctly, as I consider, attributed its origin to the African Desert. I had soon an opportunity of ascertaining that they did not originate on the island itself, for I witnessed a sand shower of considerable density, over the sea to windward of the island, between which and the African coast no land intervened, and I therefore came to the conclusion that that coast was its source." 4. "Analogy between the serial arrangements of the Leaves of Plants, and Crystalline Forms." By Mr. W. Mitchell. Mr. Mitchell remarks, "Having some time ago had my attention drawn to the series expressing the special arrangements of the leaves of plants, and more recently to the former series as regulating the shapes of cones, I was led to inquire whether a similar relation might not be found to exist among crystalline forms. The result of my observations is, that the same law prevails in crystals as in plants." Mr. Mitchell examined crystals belonging to the cubic, pyramidal, rhombohedral, and prismatic systems, and found that, as in plants if $\frac{a}{b}$, $\frac{c}{d}$, $\frac{e}{f}$, represent any three consecutive terms of the series, such as ½, ⅓, ⅛, then $\frac{a+e}{b+f}=\frac{c}{d}$ will express their relation. He concludes "may we not infer, from the serial law here shown to be common to both, that a series of nodes in plants corresponds to a series of similar crystalline forms; and dissimilar appendages of the plant to dissimilar crystals? At least the subject seems worthy of consideration, and might lead to still closer analogies, illustrative of unity with diversity, which we already know to be a distinguishing characteristic of the works of God."

Notices of Books.

Memoirs of the late Rt. Hon. Sir Robert Peel. 2 vols., 8vo. Murray. Edited by Lord Mahon (now Earl Stanhope) and the Rt. Hon. E. Cardwell.

The exclusively political character of these interesting memoirs prevents our even referring to their very important contents, with the exception of what concerns the Potato disease, and the repeal of the corn laws, which was its natural consequence. In the second volume, Sir Robt. Peel himself describes the great calamity that visited nearly all Europe in 1845, commencing with a letter received by Sir James Graham from the Isle of Wight on the 11th August, 1845, and ending with a letter to Lord Aberdeen dated Aug. 19, 1847. The writer of the present memorandum feels bound, as one concerned in the non-political events of the time, to bear his testimony to two points: one is the entire absence of all exaggeration or onesidedness

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